PERFORMANCE FUNDING IN LOUISIANA:

A QUANTITATIVE ANALYSIS OF THE

GRAD ACT

by

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ABSTRACT

The funding of higher education in Louisiana has faced quite a number of challenges as recent economic forces have resulted in reduced state revenues throughout the past several years. Concurrently, and following a national trend, questions have arisen regarding the value and quality of higher education. Individual institutions, faced with reduced state appropriations and calls for accountably, have experienced further difficulty in attempting to mitigate their lost appropriations, as the structure of funding in Louisiana does not allow for increases in tuition rates without prior approval from the state legislature. In 2010, the Louisiana Granting Resources and Autonomy in Diplomas Act was passed in an effort to respond to calls for increased quality in education and to allow institutions a degree of autonomy and influence over tuition rates. The Act requires participating institutions to report and meet performance criteria at specified levels in order to receive a percentage of their state appropriations and enable the institutions the ability to have additional operational freedoms and to increase tuition by a limited percentage. Since the passage of the Act, few critical academic studies have been conducted on its outcomes. This study seeks to fill the gap in literature by quantitatively analyzing the results of the Act at Louisiana's public 4-year, non-specialized comprehensive institutions of higher education. Student success measures, including retention rates, graduation rates, and number of completers, as well a state financial appropriations and tuition cost, were examined for change over time.

DEDICATION

This dissertation is dedicated to my wife, Diana. Her love and support made this study possible. She keeps me moving forward.

LIST OF ABBREVIATIONS AND SYMBOLS

a	Constant or intercept
β	Beta coefficient; standardized regression coefficient
B	Regression coefficient
b	Slope or regression coefficient of independent variables
BoR	Louisiana Board of Regents
COC	Commission on Colleges
Df	Degrees of freedom: number of values free to vary after certain restrictions have been placed on the data
F	Fisher's F ratio: A ration of two variances
FTE	Full-time equivalent
GPA	Grade Point Average
HBCU	Historically Black College or University
IPEDS	Integrated Postsecondary Education Data System
IRB	Institutional Review Board
LA GRAD Act	Louisiana Granting Resources and Autonomy for Diplomas Act
La PERC	Louisiana Postsecondary Education Review Commission
M	Mean: the sum of a set of measurements divided by the number of measurements in the set
Min	Minimum
Max	Maximum
Mdn	Median

n	Number of items in data set
NCES	National Center for Education Statistics
p	Probability associated with the occurrence under the null hypothesis of a value as extreme as or more extreme than the observed value
RQ	Research Question
r	Pearson product-moment correlation
SACS	Southern Association of Colleges and Schools
SD	Standard deviation
SREB	Southern Regional Education Board
SSPS	Statewide Student Profile System
t	Computed value of t test
X	Independent variables that relate to the dependent variables
Σ	Summation

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CHAPTER I:

INTRODUCTION

Introduction to the Study

The funding of higher education at the state level has a long, diverse, and often confounding history. Over time, individual states have utilized a variety of methods to determine the distribution of funding for higher education. As economic downturns have reduced state revenues, and rapid growth has occurred in state spending for other budgeted items, appropriations to education have been reduced (Burke & Serban, 1998; Katsinas, 2005; Layzell, 1998, 2007; Liefner, 2003; McKeown-Moak, 2013; Serban, 1998). Consequentially, legislators in most states, including Louisiana, have been challenged more and more to secure fiscal support for higher education during a period of volatile funding in state budgets. Increasingly, states are attempting to incentivize institutions to shift their respective practices, strategies, and institutional culture through performance funding (McKeown-Moak, 2013; Sanford & Hunter, 2011; Serban, 1998).

In 2010, while in the midst of the national economic downturn, Louisiana legislators embraced performance-funding policies for the state's systems of higher education. Speaker of the House Jim Tucker indicated that low-student outcomes, as well as the need to compete nationally for both students and jobs, was a necessary and important problem to be addressed by the state. He noted the legislation, "will provide our institutions with the flexibility they need for improving outcomes, while also encouraging them to incorporate common sense plans like raising standards, eliminating poorly performing programs and having our four year schools

collaborate more effectively with our two year institutions" (Office of the Govenor, 2010a, p. 2). The legislation that was passed sought to improve outcomes in student success, articulation and transfer, workforce and economic development, and institutional efficiency and accountability.

Following the implementation of the new legislation requirements throughout Louisiana's higher education system, and after agreements had been reached with each respective institution, Board of Regents Vice Chairman Bob Levy also cited improved outcomes as being important. He added, "These comprehensive improvement plans have the potential to drive statewide and campus efficiency and effectiveness for years to come" (Louisiana Board of Regents, 2010, p. 1). At least one higher education journalist saw the passage of the legislation as a potential opportunity during a time of financial crisis saying, "Louisiana lawmakers passed a law giving public universities more authority over tuition if they can meet performance benchmarks, such as improved graduation rates" (Kelderman, 2010, p. 3). The Baton Rouge Advocate stated of the legislation that it "allows colleges to hike tuition costs by up to 10 percent a year if they agree to meet certain performance goals" and "gives colleges more autonomy in purchasing and other projects in exchange for increased college graduation and retention rates and overall graduates" (Blum, 2011, p. 2). As these observers and others indicated, with this legislation, policymakers sought to influence educational outcomes with the application of a policy instrument that would impact the funding of individual institutions based on their performance of selected criteria. These initial agreements with the institutions, conducted through the Board or Regents, are nearing the end of their 6-year term.

In Louisiana, the passage of Act No. 741 in the 2010 Regular Legislative Session created the Louisiana Granting Resources and Autonomy for Diploma Act. In 2011, Act No. 418 amended the previous Act for clarity and additional specificity. These legislative acts are often

referred to as the LA GRAD Act or simply the GRAD Act. The GRAD Act has created a performance funding structure for higher education in Louisiana that has not been adequately studied. This paper quantitatively examines the changes to funding and performance indicators previous to and following the passage of the Act in 2010.

Performance-based budgeting, performance incentives, performance reporting, or performance funding, as it is sometimes known, is not a new phenomenon in higher education (D'Amico, Friedel, Katsinas, & Thornton, 2014; Dougherty, Natow, Bork, Jones, & Vega, 2013; Dougherty, Natow, & Vega, 2012; Dougherty & Reddy, 2011; Hou, Lunsford, Sides, & Jones, 2011; Layzell, 1998; McKeown-Moak, 2013; McLendon & Hearn, 2013; Mullin & Honeyman, 2008; Schmidtlein, 1999). Dougherty and Reddy (2013) indicated that though these terms are often used almost interchangeably, there are significant distinctions between these funding approaches. They defined *performance budgeting* as a practice by where performance outcomes at individual institutions are considered as only one possible factor in determining budget allocations by governors, legislators, and system boards. A *performance incentive* is generally considered to be additional funding over and above regular state appropriations allocated to an institution for reaching some sort of predetermined goal or objective. This differs from *performance reporting* which has little or no direct connection between performance results and funding, although the collection and awareness of performance data may compel improvements at an institutional level. Finally, they describe *performance funding* as connecting "state funding directly and tightly to institutional performance on individual indicators" (p. 5).

Through the remainder of this manuscript, the author will use the term "performance funding" to refer to Louisiana's GRAD Act. In the case of Louisiana's legislative act the author will use the term "performance funding" to mean that some portion of state provided fiscal

appropriations are determined by selected metrics at an institutional level, which are linked to agreed upon educational or operational outcomes. In conducting this research the author believes it best describes the current status and execution of Louisiana's legislation rather than other terms that are often used interchangeably (and incorrectly) such as performance budgeting, performance reporting, or performance incentives.

This type of performance funding policy is often used on state levels to influence socially or politically desirable results and outcomes from the involved institutions (Dougherty et al., 2012; McLendon & Hearn, 2013; Sanford & Hunter, 2011; Serban, 1998). All signs suggest that Louisiana's newly adopted version of performance funding is similar to many of the recent policies adopted in other states, yet unique and different enough that it necessitates study. While many of the origins and early results from performance funding polices have been studied (Banta, 1986; Bridges, 1999; Burke, 2005; Burke & Serban, 1998; Dougherty & Reddy, 2013; Layzell, 1998; Serban, 1998), the current implementation of performance funding utilizes a different focus than that of many policies from the 1990s. McKeown-Moak (2013) has indicated that the, "one main difference between performance based funding then and now is a change in the focus from meeting the needs of higher education to meeting the needs of students, the state, and its economy" (p. 4). As if to underscore this point, Governor Jindal said after signing the Act into law that, "the LA GRAD Act provides a very strong incentive for our colleges and universities to increase retention and graduation rates, more closely align academic programs with workforce needs, and to excel in research that will move Louisiana's economy forward" (Office of the Govenor, 2010b, p. 1). He concluded his remarks about the legislation by indicating how the new law would aid institutions in improving their competitiveness,

effectiveness, and efficiency – and more importantly, how the legislation would better prepare Louisiana students to compete for jobs in the 21st century.

Prior to the national recession, Louisiana's higher education was beginning to show some improvement after years of underfunding. "Following a five-year stretch starting in 2003 in which per-pupil spending in Louisiana grew faster than anywhere else in the South -- 55 percent versus a Southern regional average of 30.7 percent -- state support for colleges and universities has plummeted in the past two years" (Moller, 2011, p. 1). In stark contrast to this brief period of growth, by the late 2000s Louisiana was facing billion-dollar budget shortfalls each fiscal year. Individual institutions began to encounter multimillion-dollar mid-year and annual budget cuts. Much of Louisiana's state budget is considered "non-discretionary" and enjoys constitutional protections from severe reductions for a variety of reasons. The LSU System has interpreted the impact of such a funding structure on higher education explaining:

> State funding for higher education is heavily influenced by the state's fiscal situation and its funding takes a disproportionate hit when state revenues are down or weak because higher education is one of the largest consumers of discretionary funds in state government. Of an approximate $25 billion budget, only approximately $7 billion is classified as general fund revenue. Of that amount approximately $5.1 billion is considered "non-discretionary" and is protected for various reasons. The remaining approximate $2.6 billion is where reductions must be focused. As a result, higher education's share of any budget cut is 34 percent while health care's share is 29 percent. (LSU System Information, 2013, p. para. 2)

Largely, state appropriations for higher education and healthcare form the two most directly adjustable, and therefore often the most uncertain, areas that legislators can influence as a portion of the state budget. In addition, "Louisiana is the only state that requires that tuition increases be approved by a two-thirds vote of the legislature" (Louisiana Postsecondary Education Review Commission, 2010, p. 16). Amid these cuts, individual institutions found themselves in the difficult position of having to identify new sources of revenue. While this is

not unusual in itself, tuition increases were not an easy option for Louisiana higher education institutions to secure. "Tuition has been defined judicially as a fee, and the state constitution requires a favorable vote of two-thirds of the legislature to increase any fee," according to the state's Postsecondary Education Review Commission (2010, p. 19). Louisiana's structure for the setting of tuition has been called one of the strictest in the nation (Addo, 2013).

In February 2010, in a ceremony at the state capitol in Baton Rouge, Governor Bobby Jindal gathered with prominent representatives of state business, higher education, and the legislature to announce the Louisiana Granting Resources and Autonomy in Diplomas Act (Office of the Govenor, 2010a). Passage of the legislation, known as the GRAD Act, has had significant effects on all public institutions of higher education in the state of Louisiana in ways that have not yet been fully studied or understood. More than 50 different indicators tied performance expectations to funding for individual higher education institutions ("Louisiana Granting Resources and Autonomy for Diplomas Act," 2010). Objectives of the act are categorized under the following areas: student success, articulation and transfer, workforce and economic development, and institutional efficiency and accountability.

According to Jakiel (2011), the reason institutions were willing to adhere to the performance requirements of the act were directly tied to the new autonomies, both operational and financial, which they would then be granted upon meeting declared yearly expectations. Institutions agreeing to participate entered into six-year agreements with the Louisiana Board of Regents to gain this autonomy, with the stipulation that the institutions would achieve more productive outcomes as determined by yearly performance evaluations. In 2011, Act No. 418, often known as GRAD Act 2.0, was passed which further tied funding to specific metrics and clarified how funding of institutions would be affected based upon performance outcomes. It

was this second bill that truly moved the GRAD Act from a performance incentive, and turned it into a performance funding structure. "In aligning the existing state funding formula with the LA GRAD Act, state allocations will also now be one of the incentives available to institutions. It seems that the LA GRAD Act has been transformed in the year since its passage from a voluntary agreement between public postsecondary institutions and the Board of Regents to the new funding formula for higher education in Louisiana" (Jakiel, 2011, pp. 11-12).

Background for this Study

The process of state budgeting of resources or funds for higher education has evolved over time to become a complex undertaking that extends from the governor's office through a myriad of channels that terminates at the individual department level of each institution in the higher education system. Each state has a unique set of factors that influence this budgeting process, resulting in often-dissimilar processes and policies to achieve what would, initially, seem to be similar desired outcomes. Louisiana's funding structure changed significantly with the implementation of the GRAD Act – the impacts of which this study seeks to answer.

When examining the funding process for a single state, it becomes clear that environmental, economic, political, organizational, and personal factors have a significant influence over the practical budgeting operations of most institutions of higher education. States have utilized a variety of methods for determining the budgets dedicated to higher education (Burke & Serban, 1998; Layzell & Lyddon, 1990; Long, 2010; McGuinness, 2011). Among the most common funding methods used by the states, since approximately the 1950s, are providing funds per student, which are usually adjusted periodically for increases in the cost of living; incremental financing, where institutions negotiate a final budget with the state, based upon considerations such as new program development and individual institutional needs or

circumstances; and aid formulas, some simple, but many complex, often using historical costs and amounts with future predictions based on a variety of factors (McGuinness, 2011). Performance funding is not a new phenomenon in higher education, but one that has seen its popularity grow and decline over the last several decades (Dougherty et al., 2012; McLendon & Hearn, 2013; Serban, 1998). Although it was first introduced in Tennessee in the late seventies, "performance funding is largely a phenomenon of the nineties" (Burke & Serban, 1998, p. 12).

Louisiana's Board of Regents is required by the Louisiana Constitution to distribute state provided funding to individual public institutions and to ensure equity via the use of formulas (Louisiana Postsecondary Education Review Commission, 2010; Manning, 2006; Public Affairs Research Council of Louisiana Inc., 2008). As with many legislative directives, these formulas have been influenced or changed over the years to meet the needs of the state and the political landscape. In 1997, Louisiana began utilizing performance budgeting in the funding of all state agencies, including higher education (Louisiana Board of Regents, 2011b). This, along with a statement from the state attorney general, interpreted the authority to set tuition as being vested in the hands of the legislature rather than the individual institutions or their governing boards. This structure, unique to Louisiana, has resulted in the state being among the only in the nation which needs a two-thirds vote of the legislature to allow institutions to increase tuition (Louisiana Postsecondary Education Review Commission, 2010).

In February of 2010, the GRAD Act was announced as a formal declaration that Louisiana was to embrace a new method of allocating funds for higher education. All public four-year institutions in the state entered into six-year arrangements with the Louisiana Board of Regents agreeing to meet the requirements of the act. Meeting the requirements of the agreement would afford institutions the option of increasing tuition by up to 10 % each year in

which they meet their outcome goals, in addition to potentially gaining additional operational autonomies. The adjustments to the act, made in the following year, also tied 15 % of institutional funding to performance outcomes. This meant a 25 % performance component for campuses to achieve all possible funding in a given fiscal year (Louisiana Board of Regents, 2011a).

Statement of the Problem

Since the passage of the GRAD Act in 2010, the state funding structure to institutional budgets and reporting of key indicators for higher education in Louisiana have changed significantly. The provisions of the Act require that specific performance measurements from participating institutions be reported to the state. Institutions meeting predetermined levels of performance are rewarded with increased autonomy and the ability to raise a percentage of their tuition rate. The institutions that fall short of their targets are met with budget reductions, which are triggered by the requirements of the Act.

This policy, resulting in a performance funding structure, has not been sufficiently studied in Louisiana. This current study examines the changes to selected performance indicators after the passage of the GRAD Act. This analysis provides quantifiable data on student success measures, state appropriations, and tuition change in Louisiana. With the Act's initial six-year expiration date rapidly approaching, quantifiable results are needed by stakeholders from education, business, and government in order to effectively plan for, prioritize, and allocate finite state resources to higher education. In order to decide whether or not the continuation of the policies in the GRAD Act is an effective or desirable decision, leaders will require research providing clear evidence of outcomes in Louisiana both previous to and following the implementation of the Act. This study does not recommend the continuation or

repeal of the GRAD Act. Nor does it seek to comment on performance funding as a good or bad policy. Rather, the changes experienced by institutions in Louisiana are examined at the population level to observe if statistically significant change has occurred since the passage of the Act. In addition, to precisely allocate limited state resources, governing bodies will need to have data regarding any difference both in effects among the three state systems, as well as by institutional type.

According to Payne and Roberts (2010, p. 208), performance funding has been utilized in states across the nation since the late 1970s with Tennessee (in 1979) and Connecticut (in 1985) being the first states to adopt a specific methodology. Friedel, Thornton, D'Amico, and Katsinas (2013) indicated in their work that the prevalence of performance based funding has increased recently. Although this type of funding approach has been extensively researched, Louisiana's approach represents a new and different formula. The results of the Act therefore are not adequately explained in the current literature. This study fills the gap in the literature specific to performance funding in Louisiana. According to some researchers,

> Due to the increasing use of performance funding, it is important that policymakers understand the impact and validity of the outcomes measures they are selecting to fund higher education. If outcomes are poorly measured or indicators are not valid, the goals of performance funding to improve the higher education sector may not be realized. Performance funding may also create unintended consequences. (Hoyt, 2001, pp. 71-72)

The task of determining policy is difficult at best. For state lawmakers and policy setters, the task is even more arduous when determining funding for higher education. In order to make informed and meaningful policy changes, commonly understood and relevant metrics are needed (Dougherty & Reddy, 2013; Jenkins, Wachen, Moore, & Shulock, 2012; O'Neal, 2007; Reindl & Reyna, 2011). The GRAD Act has such metrics. These measures help form an impartial picture of the health of an institution or program. The measures also allow for the examination of an

institution to determine their efficiency and effectiveness, relative to that of their neighbors, using the same metrics (Reindl & Reyna, 2011). Results of these metrics can directly inform policy.

> States need to both increase the focus on efficiency and effectiveness metrics and commit to using the metrics as part of any effort to revamp their higher education accountability systems. Without robust accountability systems, it will be more difficult for states to create an investment strategy that reflects their economic needs and priorities. In the absence of an investment strategy, it will be difficult for states' colleges and universities to produce enough high-quality graduates to meet growing workforce demands. (Reindl & Reyna, 2011, p. 5)

The changes to higher education funding and educational outcomes due to the implementation of the policies contained in the GRAD Act have not been sufficiently studied in Louisiana. Policy makers, higher education leaders, and the public need empirical evidence upon which to evaluate the success of the approach to performance funding in Louisiana since 2010. As the state continues to struggle with mounting financial issues, determining whether or not to continue the performance funding policies of the GRAD Act is a significant problem for the state. This study seeks to provide quantitative results that can contribute to an evaluation of the legislation in order to determine future courses of action when deciding higher education policy.

Purpose of the Study

This study sought to gain an understanding of the results of the implementation of the GRAD Act and to examine quantitatively its impact on the public, four-year master's and research institutions of higher education in the state of Louisiana. This statistical examination of the phenomena also aids in determining the success or failure of the GRAD Act in achieving its stated goals. Through examination of the changes in student success outcomes, tuition cost, and state funding at the identified institutions, this study provides insight and information that both

institutional and state policy makers may reference in decision making. The study results also provide context for higher education funding in Louisiana as it compares to funding structure and policy at peer institutions in other states. This analysis aids both scholars and policy makers in placing Louisiana's type and form of performance funding accurately along the spectrum of such policies across the nation, thereby identifying the GRAD Act as either a performance budgeting or a performance funding approach. Data from pre-GRAD Act and post-GRAD Act years have provided further in-state context for the exploration of funding and policy outcomes.

Significance of the Study

This study is unique in that it is attempting to analyze data resulting from the passage of a legislative act that has had a measurable influence on the operations, reporting, and funding of higher education in the state of Louisiana. Key stakeholders, including university administrators and elected officials, can benefit from data examined in this study. The study addresses a gap in the current literature, and provides empirical information upon which to base additional decisions and policy. Additionally, "understanding the LA GRAD Act's orientation as a performance policy may help leaders of postsecondary institutions anticipate future policy directions and prepare for policy changes that will affect their institutions" (Jakiel, 2011, p. 2).

Although there is a large body of literature available on the subject of performance funding, there currently is little critical scholarly analysis of the recently implemented funding structure of Louisiana higher education. The scope of this study will be confined to the public institutions that comprise the Louisiana State University System, the Southern University System, and University of Louisiana System. These three systems combine to comprise the majority of the higher education students enrolled in the state of Louisiana. They also represent the entire population of students enrolled in four-year public, non-specialized comprehensive

institutions in Louisiana. Because of this, insights from this study have the potential to inform policy that can be beneficial to the entire higher education system in the state.

How should states assess the success of an institution? What metrics would allow a meaningful comparison of two or more institutions? What measures allow for decision-making that can have a meaningful impact on results? These questions helped guide the study of Louisiana's new funding structure and its impacts on all of the state's higher education student population. "State public colleges are the largest segment of the higher education market. A significant portion of state spending goes to higher education, and it accounts for the majority of the college students" (Lei, 2009, p. 1). Over time, state funding of public higher education institutions has been conducted in numerous ways. In this case, performance funding policies affect the manner in which states allocate funds to an individual institution based upon the particulars of the policy and the state's funding formula, and has been recently introduced in Louisiana higher education.

As the expiration of the initial six-year period of the GRAD Act nears, the legislators, higher education officials, and citizens of Louisiana can benefit from the opportunity to examine the results of this legislative policy. As difficult fiscal times are encountered by the state, the effectiveness of fiscal policy is an important factor to consider when determining state allocations. Empirical evidence will be valuable to policy makers in determining future budgets. This study examined the state's model of higher education funding in achieving its own stated goals as suggested by Layzell:

> What is likely to be a more central issue in the coming years is how state governments allocate the limited funding for higher education institutions and programs. Changes in state fiscal health often result in calls by state policymakers and higher education leaders to examine the models and approaches used to allocate funds, given heightened concerns over equity, adequacy, productivity, and the like. Not surprisingly, then, the ongoing budget pressures noted earlier are forcing many states to evaluate their current funding

approaches for higher education and the regulatory environment in which public colleges and universities operate. (Layzell, 2007, p. 3)

The findings of this study also have the potential to provide evidence to critics of higher education policy as to the quality and efficiency of the institutions involved both previous to and following a shift in funding policy. Public confidence may therefore be influenced by the utility of the indicators in the Act and their outcomes on both institutional and state levels. "The quest for both quality and accountability in the American system, particularly in education, has led to public scrutiny of academia (Banta, 1986, p. 2). Satisfying public stakeholders is paramount in most performance funding schemes as indicated by Carey and Aldeman (2008) who found that "the public funding environment has been difficult, and some higher education leaders have come to realize that in order to make the case for more public funding, they'll have to provide more information and accountability in return" (p. 4).

Research Questions

Answering the following research questions was the primary outcome of this study. The goal of the current study was to provide quantitative empirical data regarding the outcomes of performance funding at the identified institutions in the state of Louisiana. Policy makers and educational leaders may utilize the data and findings from this research to base future decisions and actions regarding higher education funding policy.

This study focused primarily on answering the following questions:

1. What have been the changes over time to the selected performance indicators in the LA GRAD Act in the reporting years preceding the implementation of the Act to the first 5 years following the implementation of the Act;
2. How do the selected performance indicators differ between the three Louisiana higher education governing systems studied;

3. How do the selected performance indicators differ based on the Carnegie Classification of the individual institutions studied;
4. How do the selected performance indicators differ between the institutions studied based upon region, enrollment, and institutional type;
5. What changes to state funding levels have institutions experienced since the implementation of the GRAD Act;
6. What is the relationship, if any, between funding and performance indicators; and
7. How have institutional tuition rates changed since the implementation of the GRAD Act?

The institutions studied in this analysis are inclusive of public four-year comprehensive non-specialized institutions in the state and directly impact more than 138,000 students. The 14 institutions selected are all members of the Louisiana State System, Southern University System and the University of Louisiana System, which accounts for three of Louisiana's five higher education governing bodies. The Louisiana Board of Regents sets policy and applies the state funding formula for the entire population of the study. The Board of Regents is also responsible for managing the GRAD Act for the state.

This research provides a look at the outcomes of the state's higher education system in Louisiana after operating under performance funding policy for five years. All the institutions working under the policies in the GRAD Act agreed to do so for a six-year term. The most accurate examination will come after the expiration of the six-year agreement period has concluded in 2016. Currently, many education officials are beginning to question the effectiveness of the Act and the possibilities of what will occur at the conclusion of the current agreements made with the Louisiana Board of Regents. Discussions of possible policy changes

have been explored in the state capital in the years since the passage of the GRAD Act in 2010. Many of these considerations focus on tuition authority and state funding levels, as well as institutional efficiency and the quality of student outcomes. This result of this research provides some guidance and evidence upon which to further the discussion and aids in clarifying the outcomes experienced to date.

CHAPTER II:

LITERATURE REVIEW

Introduction to Literature Review

This examination of available literature related to the topic of this research seeks to place the current study into a context with other scholarly works related to the topic. In examining Louisiana's performance funding outcomes, applicable published studies also provide a rationale and basis upon which to bound this research study. In order to examine existing literature, research from a wide variety of sources was explored. This study seeks to fill a gap in the identified literature by providing a critical scholarly review of the recently implemented performance funding structure of Louisiana higher education. To thoroughly search for relevant studies, a number of accepted databases containing scholarly works were utilized in the investigation of the literature.

The review of the literature that follows explores the premise of performance funding models and their application in higher education fiscal policy. To cover the extent of the subject, works covering both historical and contemporary data were included. The literature will provide a recent historical evolution of performance funding as well as a foundation for understanding where such models fall along the spectrum of budgeting systems in higher education. Furthermore, some context in Louisiana's particular funding structure and traditional operations were explored to inform the study. Few studies of Louisiana's GRAD Act have been conducted to date. What is available in the literature is presented here as direct background for this research study.

The literature review will be structured into seven thematic areas. First, a study of higher education and its funding mechanisms will be discussed within the context of public goods, policy, and politics. Second, an exploration of recent public and governmental calls for accountability in higher education and how this is manifested in performance funding will be given. Then work on the definition and nature of performance funding will be presented, as well as how Louisiana has specifically implemented it, providing the basis for understanding this funding policy approach. Assumptions observed which impact performance funding outcomes will be explored for a more thorough examination of the phenomenon. Further literature will present research on immediate, intermediate, and ultimate institutional impacts and actual student outcomes. Research examining intended versus unintended results of performance funding policy will then be studied. Work discussing the abandonment of performance funding models will also be included in this examination of the literature. Finally, theoretical underpinnings related to performance funding will conclude the examination of current literature.

Public Goods, Policy Tools, and Politics

The concepts of public goods, policy tools, and politics appears often in the examined literature and addresses the arguments both for and against the subsidizing of public higher education by the state. How much, if any, should states support the costs of education? If they should, where are financial inputs best utilized in order to drive greater economic gains beyond the individual? Where does political support matter, and where do citizens of a state have a say?

Public, Politics, and Perception

Among the primary questions that researchers of performance funding seek to answer are: what should be the role of public higher education (Courant, McPherson, & Resch, 2006), what is government's role in influencing higher education outcomes (Layzell & Lyddon, 1990;

Payne & Roberts, 2010), what are the perceptions of policy makers related to performance funding of higher education (Serban, 1998; Williams, 2005; Yowell, 2012), and, if it is so attractive to legislators, why does performance funding not persist in a stable manner (Dougherty et al., 2013; Dougherty et al., 2012; Reindl & Reyna, 2011)? These questions of the nature, origins, and implementation of higher education performance funding are important in understanding the perceived goals and possible outcomes of both higher education, and the influencing factor such funding approaches have on student outcomes. In more than 40 years of performance funding approaches, policy makers have not found a clear consensus on one best approach. At the same time, higher education has seen its role in society questioned by both political leaders and the public.

The Public Role

Unique among the researchers included elsewhere in this paper, Courant et al. (2006) are economists seeking to differentiate between the public and private benefit of public higher education. They state "an extensive public role in higher education has been, near as we can tell, essentially universal for over a century, and has been replicated under a wide variety of public choice mechanisms" (p. 292). This concept of the public role, along with a variety of mechanisms, is central to how decisions are made at the state policy level as it relates to funding of higher education and determining a manner in which to do so. One such method increasingly used in the last several decades is performance funding, among a mix of other funding approaches. The authors sought in their work to use quantifiable data to illustrate arguments both for and against public higher education – the personal private benefit versus the more difficult to quantify public economic good or benefit. Ultimately their work concluded that public funding of higher education may change, but is in no danger of disappearing. What they

acknowledged as being less clear, was the optimal method of funding that supports the goals of access, accountability, and best return for investment.

The research presented by Courant et al. (2006) examines higher education through the eyes of an economist, which is a slightly different outlook than traditionally taken by educators. With a focus on public institutions, the authors examined the current system of higher education in the U.S. and proposed a number of potential scenarios in which alternative courses may be taken. Most of their examples, as well as the research presented, seek to answer the question, "what should be the public role in higher education?" (p. 291). If higher education is such an economic driver and a positive outcome for both the individual and the community, why shouldn't government completely subsidize the costs of attendance? Can more efficient results and use of resources be obtained from different approaches than current methods? Is the current public-private approach the best compromise that can be achieved in American society?

Utilizing document and data analysis and using case study, descriptive statistics, and formula model creation methods, Courant et al. (2006) examined non-profit institutions, both public and private in the U.S. Their work presented conclusions vested within basic economic theory and based on data from the U.S. Department of Education, the College Board, and U.S. Census data while citing extensively from previous researchers. The conclusions they present state that public support of higher education is a positive endeavor, but are less clear on what level is appropriate. They then go on to question how public support should be given to different types of institutions and how the funds should be allocated across the system.

> The net costs and benefits to states and localities of subsidizing local institutions of higher education then becomes an empirical question, and our reading of the literature as it stands is that we do not know the answer. The fact that U.S. public institutions tend to be funded at the state and local level, rather than at the national level, as is the case in much of the rest of the world, provides a quasi-competitive explanation for at least some public provision. Universities provide economic benefits on a local and state scale and,

> hence, there are payoffs, pecuniary and otherwise, to their presence in one's state or locality. When university expertise was more closely tied to local natural resource bases than is now the case, this motivation for public provision appears to have been quite powerful. One of the consequences may be salutary for the whole system… that the quality of the U.S. system derives in part because of extensive competition among the public (as well as the private) institutions, something that does not arise in a unitary, national system. (Courant et al., 2006, pp. 303-304)

Largely the findings discussed suggest that much more rigorous and detailed research should be conducted, which would enable decisions about these questions to be made with much greater accuracy and certainty than is currently possible. In discussing their findings, Courant et al. (2006) first examined a number of demographic and population data. Their research indicates that the vast majority of students attend higher education institutions that are public in their organization and funding. Public sector inputs form a major part of the higher education sector globally, as well as in the United States. The levels of this support are simply different in various locales. Their work reveals that for the most part in the United States, the citizens in each state, through various governmental and legislative structures, control public higher education. The federal government also exercises a major influence over institutions albeit in a different way, that is independent of the individual institution. This is done through the system of Pell Grants, Stafford Loans, and other subsidies that are given to institutions, provided they meet a broad set of mandated criteria.

Courant et al. (2006) also discuss how the cost of the higher education sector to society can be deceiving if total expenditures are the only numbers being examined. Some areas that fall under public higher education are extremely costly, but are also subsidized at higher levels than would appear necessary to operate a single institution. One example of this arises when comparing the cost of two institutions within a state, one with a medical school and a hospital, and one without. While at first glance it may be obvious that the institution with the hospital and

medical facilities is much more costly, local, state and federal governments are also likely to be purchasing the use of these facilities from the university. Extra subsidies from Medicare or Medicaid are also likely to be greater for teaching hospitals. This can cause the costs of the two institutions to be very different from what they appear to be on the surface, while both may also yield very different outputs to the community.

Evidence of federal support is discussed at length in their research, particularly the Pell Grant program supported by Congress. Even as questions arise as to how public support from either the federal or state level is most appropriate or efficient, the authors contend that "privatization" of higher education does not mean a for-profit model (Courant et al., 2006, p. 298). They believe that any serious discussion of privatization means a switch to a non-profit model instead of the state colleges and universities so common in America currently. This non-profit model would essentially mean the same as what is supported by the state and federal government now, but with some consolidation and rationalization brought into the industry that isn't feasible under current political climates.

Courant et al. (2006) presented historical data in their work that indicates the extreme growth in enrollments between 1950 and 2002. This growth has caused higher stresses on available resources and capacity of institutions over the last 50 years. The growth has also been disproportionately on the public side of higher education with 11.6 million enrollments going to public institution while private institutions grew by only 2.7 million enrollments in the same period. They also noted that half of the private institutions growth went to institutions that had an explicit religious affiliation.

But what public interest is best served by subsidizing higher education? How are the desired outcomes best supported? The authors wrestle with the questions in a number of ways

supported by various evidentiary results. The first and most extensively explored rationale they present posits:

> Undergraduate education of young people - that is, students who are just out of secondary school and who are still growing up - is almost universally provided by nonprofit institutions (both public and private) and, hence, almost universally provided with public support… This is a feature of undergraduate education of young people, notably of the parts of the college experience that are aimed at helping teenagers to become adults, including the residential experience that many colleges provide. It is also a feature of pure research, as well as other products of the higher education sector. (Courant et al., 2006, p. 296)

The authors contend that it is the unique and wide reaching kinds of outputs, which are produced by the individual institutions, which make evaluation of higher education results difficult. Most notably of these are undergraduate education and basic research. Both provide obvious outputs, such as degrees being granted or research published. However, measuring the hundreds of other direct and indirect outcomes is difficult at best. These and other outcomes are so highly complex, many of them not being quantifiable, that the best fit for their production – and consequently most efficient – is a public or not-for-profit institution. "To the extent that at least some of the outputs of higher education – notably undergraduate education and basic research – must be evaluated on many dimensions, some of which are not readily quantifiable, the most efficient organization for their production is not-for profit" (Courant et al., 2006, p. 296).

Courant et al. (2006) also cite previous research that details the outputs provided by the current higher education system. The majority of these outputs are public or quasi-public in nature. Some of these are simply products of desirable outcomes resulting from an educated citizenry and are not a direct economic benefit. Other outcomes also result from the public education environment itself, which might not have resulted if the system was in purely private hands. Some outcomes discussed by Courant et al. include interventions with young people,

faculty engaging in research for the sake of research, and the taste and consumption of cultural amenities. It is the entirety of this dynamic that enables an institution to attract other desirable students and faculty. This, in turn, results in diverse populations being drawn together due to the nature of a university town, rather than a specialized but profitable, private education center that draws solely from a limited scope of interested parties. The authors explore these populations with broad areas of expertise coming together and aiding in local amenities as a strengthening force in local economies.

The research conducted by Courant et al. (2006) alone is not groundbreaking, but it does rely heavily on numerous results from other researchers and underscores the basis from which many other decisions are made at the legislative level. This constant struggle of private-versus-public, along with the economic drivers influenced, form the basis for much of the debate regarding resource allocation in higher education. Their research also very clearly outlines the numerous, and often opposing, factors that must be considered when seeking to establish a baseline for funding or resource allocation in higher education. The authors do conclude that "the highly varied and notably unsystematic 'system' of higher education in the U.S. manages to be responsive to the educational needs of a very wide range of Americans, while at the same time sustaining the majority of the most highly regarded universities in the world" (p. 313). They do, however, caution about equity, and effectiveness noting that no governmental role has been optimal in its approach to higher education.

Viaene and Zilcha (2013) also examined higher education through an economist's lens. Their work explored the conditions under which massive public investment in higher education is efficient and desirable. Like other researchers, they recognized that many net social benefits accrue from public investment in higher education, which results in many additional localized

and social benefits. Using hierarchical education frameworks carried out in an overlapping-generations model, their work studied the efficiency of education policies in small, open economies. While very different in both nature and purpose, the work of Courant et al. (2006) and Viaene and Zilcha (2013) both recognize a struggle by state government in managing the economics of higher education funding. This ongoing attempt to find a more effective funding mechanism could possibly be part of the reason that performance funding often appeals to or becomes a choice of policy makers.

A Political Budget

It is important to note that the manner and methods in which various state legislatures determine a budget is a complex and varied one. "State governments bear the principal responsibility in budgeting for higher education operations and thus in shaping the present and future direction of higher education within the state" (Layzell & Lyddon, 1990, p. 5). These budgets are the tool with which the states shape an institution or an entire state system (Dougherty et al., 2013; Dougherty et al., 2012). Payne and Roberts (2010) indicate that by incorporating performance measures into their budgeting allocations, state governments have sought to encourage higher-quality teaching and improved student experiences. Performance funding is one method among many different state utilized funding policies, formulas, and schemes used to do so.

The manner in which an individual state determines its policies and procedures for a higher education budget is steeped in the history and tradition of that state. Government officials make decisions with political, economic, and demographic concerns in mind beyond those of the higher education system. Often public concerns over accountability, cost, productivity, and quality of individual institutions, or the state system as a whole, factor into the decisions made at

the capitol. Key stakeholders also see budget and resource allocations to higher education as a possible economic driver and consequently actively lobby legislative bodies in favor of their particular concerns. Many students and families voice concern to policymakers about issues such as affordability, campus services, and the resources and access provided to minority and nontraditional students. It is important to note "any funding approach developed and adopted by state governments to fund higher education is ultimately a political creation, and as such, is part and parcel of the legislative process, with its attendant risks and rewards" (Layzell, 2007, p. 18).

States in particular are very concerned about the reporting of metrics. This is for several reasons. Among them include states having the primary funding and regulation concerns for public colleges and universities; the fact that the vast majority of students attend public institutions; and the actuality that performance data for non-public institutions (not-for-profit and for-profit) are not as easily available to most states as is the public data (Payne & Roberts, 2010; Powell, Gilleland, & Pearson, 2012; Schmidtlein, 1999, 2004). States are increasingly including data for non-public institutions on many metrics as available and appropriate (Powell et al., 2012). These metrics in total are vital to the decision-making of fiscal matters at the legislative level of state government, which occurs during each budget cycle.

A major purpose that states have in regulating data collection, and the reporting from individual institutions, is to increase consistency and commonality throughout state systems in reporting benchmark data (McKeown-Moak, 2013; Powell et al., 2012). This move would assist the measuring of future progress in improving the collection and use of efficiency and effectiveness metrics for higher education accountability. With a more common measuring stick, institutions can be compared on an as-similar basis with more comparable results (Aldeman & Carey, 2009; Burke & Minassians, 2001; Carey & Schneider, 2010; Rabovsky, 2012). States

would be able to request that colleges and universities provide data in a way that allows for aggregation at the state level and can be vital in the construction of the metrics used and the policies implemented.

This type of revamping of the state metric reporting process is paramount to ensuring the continued success of a robust higher education system in the U.S. "Increasing productivity in higher education will depend in part on building strong accountability systems that move away from the ones primarily in use today, which tend to emphasize inputs over outcomes and the collection and reporting of data as opposed to using the information in decision-making," (Powell et al., 2012, p. 3). It has been suggested in the literature that common measurements that can be utilized in decision-making should be a primary consideration for all states. The majority of metrics focus on undergraduate success likely because "state governments play a larger role in the provision of funding that focuses on teaching than on research" (Payne & Roberts, 2010, p. 207).

State government has a vested interest in ensuring the effectiveness and efficiency of higher education. Schmidtlein (2004) indicated that a main obligation of the state is to establish and maintain a diverse set of institutions that meets the legitimate needs of society and as well as learners with differing educational needs. Schmidtlein's work indicates that states must also ensure the system of colleges and universities are operated efficiently and effectively. This includes the avoidance of ''mission creep,'' unnecessary duplication, and a commitment that qualified students have reasonable access to the programs and courses, which they require to meet their respective educational objectives. Finally the state also affirms that data is collected and analyzed to assess trends taking place in the higher education system and to identify policy issues relevant to government responsibilities (Schmidtlein, 2004).

Aware of the power and impact of budgetary constraints on an organization such as a university, policy makers have sought to influence the outcomes in higher education through budgetary controls. "State governments have actively encouraged higher-quality teaching and better student experiences at public universities by using performance measures in their budgeting allocations" (Payne & Roberts, 2010, p. 207). In states where the quality of teaching is in question, elected officials can utilize fiscal policies such as performance funding to encourage an institution, or an entire higher education system, to refocus energies and resources into teaching effectiveness and quality, through criteria requirements linked to state funding and teaching outcomes. Some institutions in Indiana made plans to add more STEM programs after performance funding formulas were amended to allocate more funds for degrees in science, technology, engineering and math (Wall, 2013). Zarkesh and Beas (2004) revealed in their work that forces driving these funding policies have been budget constraints which "have increased the pressure on governors and legislators to prove that they are capable of creating policies that efficiently provide quality higher education with limited resources" (p. 2).

When studying the funding of public higher education relative to the influence of political, economic, demographic, and higher education variables, Tandberg (2010) observed two compelling results. Most notably the author found that politics have a definite influence on the amount and manner of funding higher education. It was also noted that the research showed interest groups do measurably impact state support. The research conducted used data from all 50 states through the course of 19 years using a pooled, cross-sectional times-series analysis. The author concluded his evaluation by noting that higher education funding was not immune to politics or other budgetary forces. He also found that "because of its susceptibility to political influences, higher education may stand to benefit the most from its involvement—or lose the

most by refusing to engage—in state political and budgetary processes" (Tandberg, 2010, p. 442).

Dougherty et al. (2013) conducted qualitative research that relied heavily upon document analysis and extensive interviews of higher education officials, legislators and staff, governors and advisors, business leaders and other stakeholders. Their work indicated "state elected officials also faced strong demands from the general public and business for greater efficiency and lower costs of higher education" (Dougherty et al., 2013, p. 4). The authors presented evidence that business interests wanted higher quality college graduates, lower costs, and for taxes to be kept down. At the same time their work showed that higher education was increasingly being viewed by the public, as well as policy makers, as being inefficient, having weakened standards, and favoring research over teaching. Dougherty et al. (2013) ultimately concluded that political forces influencing the development of performance funding varies from state to state and may explain why only about half of the states have implemented it within the last 30 years.

Perception

According to Powell et al. (2012), "recent negative changes in the U.S. and world economies are exacerbating long-standing needs for improvements in institutional effectiveness and efficiency, and increased accountability for both" (p. 102). To be responsive both states and individual institutions have attempted a variety of fiscal approaches. Increasingly, quality assessment of institutions is considered as part of the financial calculations. In other cases parental and student concerns about the value of a particular degree permeate the conversation. Increased tuition has stakeholders questioning the cost, value, effectiveness, and efficiency of

higher education. In short, institutions are being challenged to communicate their worth and effectiveness in a number of given areas.

To respond, institutions have attempted to communicate their results to both the state and the community. This is very different than they have had to do in the past. "For much of their history, colleges and universities have been viewed as a public good and, as such, have been permitted to operate with few questions about their expenses or the results they achieve from the resources available to them" (Powell et al., 2012, p. 103). To now report these results, institutions rely on a variety of metrics. Traditionally, metrics such as four- or six-year graduation rates, 1st to 2nd year retention rates, and satisfactory credit progress were used to communicate results. Today, these and even more specific measures are required to satisfy the concerns of stakeholders.

Although determining the perceptions of stakeholders in regards to performance funding may be addressed as a qualitative endeavor, it is important to gain a balanced context in conjunction with the quantitative data that this study seeks to measure. Often, it is assumed that there exists some sort of disconnect or impassible difference in the goals of the state and the aims of higher education officials. Performance funding can be seen by some as the state attempting to impose a different set of values on higher education than it would otherwise impose on itself. Serban (1998) found this to be untrue in her research as she stated "the findings of this study challenge the commonly held assumption that there is an irreconcilable gap between policymakers and campus leaders when it comes to any statewide policy aimed at addressing higher education quality and accountability" (p. 11).

Other researchers, such as Williams (2005), found that, in fact, performance funding schemes were so positive that most felt that their removal would have a negative effect on

student success and institutional effectiveness. Speaking specifically about Tennessee, the state with the longest running performance funding approach, Williams found that "the very notion of discontinuing the performance funding program in the state of Tennessee is not a viable or sensible option. Respondents indicated that the removal of the program from the funding formula would have lasting negative effects on public higher education in Tennessee" (p. 103). Yowell (2012) also examined perceptions, again in Tennessee, and found that although many political issues, including education, have grown increasingly partisan in recent years, no significant difference existed amongst legislators or higher education officials in how they viewed performance funding. Again, this finding is often viewed as a success story and makes the results in Tennessee attractive to legislators across the nation, which may explain why it is often emulated by other states. It should be noted that Yowell's findings were limited to the state with the longest and most entrenched performance funding approach. This instance of longevity in the funding approach is not true of most other state governments, nor is it replicated in how they articulate performance funding for higher education in other state budgets.

Accountability

Related to funding and the public role, is accountability in higher education. The way in which accountability is measured is a serious challenge for higher education and a challenge that states have handled differently. Political leaders, educators, business, and consumers all have differing viewpoints. The concept, definition, and application of accountability is central to the performance funding phenomena in each respective state, system, or institution in higher education.

A common thread found in much of the reasoning behind the embrace of performance funding by state legislatures is the concept of accountability. Whether this accountability is

linked to legislators, campus leaders, the students at an institution, or the public-at-large, tying some portion of funding and resources to performance criteria has come to be seen as a way in which institutions, an educational system, or the state itself can be held to a set of standards for the quality and outcomes of higher education. Researchers have attempted to determine if performance funding approaches to higher education funding have achieved the accountability they seek (Bogue & Johnson, 2010; Burke, 2005; Carey & Schneider, 2010; Polatajko, 2011; Rabovsky, 2012; Reindl & Reyna, 2011; Zumeta, 2011) and, in doing so, have explored the underlying concept of the drive for accountability and how it is manifested in policy.

What Does It Mean?

What is implied in the term "accountability" seems to vary depending upon the policy examined or the person defining it. While most people understand the concept of accountability – the obligation of an individual, an institution, or an organization to account for its activities, accept responsibility for them, and report results in a transparent manner – the practical implications for demanding an accountable higher education system or even a single institution, are less clear. Zumeta (2011) indicated that public accountability "to refer to higher education's responsibility to the citizenry in a democracy" but also acknowledged "that public accountability's meaning is subject to reinterpretation over time as a society and polity's needs, values, and expectations change" (p. 134). However ill-defined, it is clear in the literature that the concept of accountability is central to the performance funding approach and has a great deal of impact on the implementation, the goals, and the actual outcomes of any state funding approach which incorporates it.

Long (2010) suggested that rising tuition costs and visible inefficiencies such as low graduation rates have been responsible for the increase in calls for accountability (p. 141). While

much of the focus has been monetary, the author also suggested that high attrition rates might call into question whether or not institutions are making efforts to maximize student success. The work also indicated, "underlying any accountability system, though, is the assumption that money is somehow related to postsecondary results" (Long, 2010, p. 147). Clearly, any changes to accountability practices in state financing of higher education should heed these considerations when planning such a structure for funding.

Burke (2005) identified six models of accountability in his work: bureaucratic, professional, political, managerial, market, and managed market. I believe the GRAD Act in its current form fits Burke's political model precisely. Burke (2005) defined the political model of accountably as policies used as levers by policymakers who are acting as agents of the state to align higher education to state priorities as defined by some consensus. Various planning techniques are used in this accountability model to enact consequences such as an incentive for reaching outcome indicators or financial losses for failing to do so. These performance funding programs attempting to follow public policy theory enacted by decentralized governance define the sort of model the GRAD Act follows. "The goals have shifted over time from efficiency to quality to productivity and finally, to responsiveness to public priorities and market demands" (Burke, 2005, p. 10).

Bogue and Johnson (2010), Polatajko (2011), Rabovsky (2012), and Zumeta (2011) explored accountability directly in the course of their research. In his work, Zumeta does attempt to define the term "accountability" in the higher education context. He goes beyond the basic definition of accountability and reasons "one might think about this as the social contract between higher education and the supporting society of which it is a part" (Zumeta, 2011, p. 134). He does, however, add the caveat, "I would assert, these arguments must reside in

honestly and successfully serving broad societal interests, or what I like to call public purposes, which can vary over time" (p. 134). It seems apparent that when discussing accountability, or even discussing it with others in higher education, clarification is needed to frame the context properly.

A common understanding is important for all involved parties, as it forms the basis for the methodology and outcomes expected. Bogue and Johnson (2010) acknowledge this concern in their research by asking "to what extent do the several internal and external stakeholders of higher education share an understanding of the definition and purpose of accountability and the evidence they would accept to demonstrate accountability?" (p. 4). It frames what is a mixed and complex discussion, and even with an understanding of the implied definition, it provides context for further specifics. Bogue and Johnson (2010) revealed in their work that evidence exists in which political, business, and education officials fail to agree on the purpose of accountability policy and further disagree on what constitutes successful outcomes of accountability. Ultimately the authors concluded "while accountability policy has had a constructive effect on performance evidence in United States higher education, there will continue to be differences over stakeholder expectations of higher education (its mission and purposes) and differences over credible evidence for demonstrating accountability (indicators of fiscal responsibility and educational outcomes)" (Bogue & Johnson, 2010, p. 20).

In his research, Rabovsky (2012) indicates that critics have long decried the inefficiencies in most public organizations. One way in which these agencies are held accountable to the public is through budgeting policies that put stipulations on performance. Hence, legislators often arrive at the performance funding model that has emerged in higher education during the last four decades. Again, Rabovsky (2012) does find a disconnect in the meaning of

accountability - not in definition, but in its application and use. He indicates that it is often unclear if poor performance should be met with fewer or greater resources. To punish an underperforming organization, with reduced funding or resources, could create a negative feedback loop in which performance criteria may never be able to be met. The author contends, however, that underperformers may not be influenced to change actions or strategies, even with the threat of reduced resources or the reward of additional ones. He does reveal that "regardless of their impact on budgetary actors, performance-funding policies ultimately aim to influence public sector service delivery" (Rabovsky, 2012, p. 677). While performance funding may not be a solution for every state, public accountability in many forms seems to be of greater concern, as state budgets get tighter. "Public accountability is inevitable—and always has been in some form—if you are a large, important institution in society, as higher education surely is" (Zumeta, 2011, p. 147).

Performance Funding in Louisiana

Performance funding is a method of funding a state's public higher education system that differs from other forms of funding in that financial allocations to an institution are based on the metrics of outcomes such as graduation, retention, or job placement rates. This differs greatly from many other funding formulas that are based on inputs to an institution or system such as enrollment levels. Most often, the rationale expressed by legislators in utilizing this funding method is to prompt greater effectiveness and efficiency in institutions (Burke, 2002; Dougherty et al., 2013; Layzell, 1998).

The LA GRAD Act itself is a form of performance funding model for the allocation of funds to individual institutions from the state. Funding allocations and a percentage of tuition authority are automatically determined by outcomes of the individual institution, as their

predetermined goals are met or not met. Dougherty et al. (2013) define performance funding as connecting state funding directly and tightly to institutional performance on individual indicators. The Board of Regents indicated how tightly this funding was to be connected to performance when announcing the new funding formula after the passage of the GRAD Act:

> The performance component has been simplified and aligned with the GRAD Act. State general funds will be awarded based upon an institution's performance on the student success measures outlined in the GRAD Act.
>
> Those measures include graduation rate, retention rate and number of completers. Campuses can achieve an additional 10% in tuition funding if they meet their annual GRAD Act targets for a total performance component of 25%. (Louisiana Board of Regents, 2011a)

Therefore institutional autonomy, as well as accountability, will also form much of the thematic framework for this review. Thusly, resource allocation and performance are major components of determining the impact of outcomes to an institution or system and form additional frameworks to examine the literature. Many of these concepts find their origins in management theories, such as management by objective, which was popular in the corporate world prior to being applied to higher education. It is likely that political objectives seeking to provide a measure of control by the state are a form of state-oriented systems that are actually seeking to supplant market-oriented systems in which the institutions operate. Economics, budget cycles, funding allocations, political and public support, efficiency, and perceived value, therefore, also come into the discussion as a framework for understanding the GRAD Act and its results.

Objectives of the GRAD Act are organized into four major areas: student success, articulation and transfer, workforce and economic development, and institutional efficiency and accountability. Each area uses specific indicators to measure overall performance. Indicators of interest to this study are listed relative to their areas of organization in Table 1 and Table 2.

Table 1

Student Success and Articulation and Transfer Measures Reported by the Institutions in the Study to Determine their Agreed upon outcomes as Required by the GRAD Act

Student Success	1st to 2nd Year Retention Rate
	1st to 3rd Year Retention Rate
	Same Institution Graduation Rate*[1]
	Graduation Productivity*
	Award Productivity*
	Statewide Graduation Rate*
	% Change in Baccalaureate Completers
	% Change in Post- Baccalaureate Completers
	% Change in Masters Completers
	% Change in Specialist Completers
	% Change in Doctoral Completers
	% Change in Professional Degree Completers
	Nursing (RN) License Exam Pass Rate*
	Education License Exam Pass Rate*
Articulation and Transfer	1st to 2nd Year Retention Rate of Transfer Students*

Notes. *Following year 2, institutions were required to add a minimum of one targeted measure to each of the four objectives (student success, articulation & transfer, workforce & economic development, institutional efficiency & accountability) by selecting from a menu of optional targeted measures. [1] Some specific institutions were closed due to impact of Hurricanes Katrina and Rita and were exempt from reporting during the 05-06 Academic Year. Source: Louisiana Board of Regents (2015c).

Table 2

Workforce and Economic Development and Institutional Efficiency and Accountability Measures Reported by the Institutions in the Study to Determine their Agreed upon Outcomes as Required by the GRAD Act

Workforce and Economic Development	# of Students Enrolled in Courses with 50% - 99% Distance ed.*
	# of Students Enrolled in Courses with 100% Distance ed.*
	# of Programs Offered through 100% Distance ed.*
	Number of Intellectual Property Measures Resulting from Research Productivity & Technology Transfer Efforts*
	Dollar Amount of Research & Development Expenditures per Research/Instructional Faculty*
	% of Faculty Holding Active Research and Development Grants/Contracts
Institutional Efficiency and Accountability	% of Eligible Programs that are Discipline Accredited*

Notes. *Following year 2, institutions were required to add a minimum of one targeted measure to each of the four objectives (student success, articulation & transfer, workforce & economic development, institutional efficiency & accountability) by selecting from a menu of optional targeted measures. Source: Louisiana Board of Regents (2015c).

As it is a relatively new phenomenon, there is little in the literature that specifically studies the outcomes of the Louisiana GRAD Act. Jakiel (2011) is one of the few authors to examine the case of Louisiana in research seeking to understand performance incentives in postsecondary state policy. The author applied Burke (2002) models of excellence to categorize and examine the indicators of the GRAD Act. In addition the author also provides in-depth examination of the language and specific outcomes of the policy.

The work conducted by Jakiel (2011) is qualitative in nature and relies on extensive document examination conducted under the aforementioned conceptual framework for policy analysis. The author also documents the evolution of the GRAD Act in its 1.0 and 2.0 versions.

Most interesting in the work is that the author seeks to place the GRAD Act along the spectrum of performance funding, budgeting, or reporting. Often in the research the author also indicates the funding from the GRAD Act is incentive-based in nature. Because the research was conducted before all GRAD Act components had been fully realized at the institutional level for even one year, the author concluded that it was difficult to determine how funding decisions would be made. Jakiel concluded that Louisiana's new funding policy was accurately described as performance budgeting, but that it was likely moving to performance funding with the implementation of GRAD Act 2.0, a determination that could not be made until some time had passed.

The limited research on Louisiana's GRAD Act is largely due to the newness of the legislation. Jakiel (2011) concluded that the impact of the Act would not be known until some time had passed. "Although the LA GRAD Act dominates the higher education policy landscape in Louisiana, because of its relative newness it is still not well understood nor will its impact on postsecondary education be known for some time" (Jakiel, 2011). This current study builds upon that assertion and will examine the first four years of the Act using the data that was not yet available to Jakiel.

Jakiel (2011) indicated that by examining the Act using models of excellence or other existing frame works, the Act itself could be better understood. The research also showed the policy to "be most concerned with state interests" and that these frameworks would aid understanding by " the practitioners who must apply the policy to their work in admissions, retention, teaching, outreach, and many other areas within public colleges and universities" (Jakiel, 2011, pp. 18-19). The author also concluded that this nuanced understanding of the

policy would allow institutions and their leaders to be better able to respond to the influences and requirements of the GRAD Act.

More recent work has been conducted by Schillage-Truxillo (2014) in examining outcomes related to the GRAD Act. Employing a mixed methods approach, Schillage-Truxillo's (2014) work conducted academic research into the relationship between student retention strategies and the student success measures contained in the GRAD Act. The author cited work by Harnisch (2011) and Kanter (2011) as acknowledgement of the national and state need to address the problem of poor student retention and therefore focused research efforts at identifying the commonalities between retention strategies and success measures in Louisiana.

Schillage-Truxillo's (2014) work used extensive descriptive statistics as well as document analysis, personal interviews, and communications. In doing so the author not only provided empirical work about the relationships explored, but also provided a very detailed history and context for the passage of the GRAD Act in Louisiana. Also included in the work were recent legislative changes, proposed legislative actions, and a contemporary examination of efforts by stakeholders to continuously modify higher education outcomes through various means. The author's data came from a sampling of the four-year, two-year, and technical schools in the state as well as narrative reports supplied by each institution.

In conducting the study, Schillage-Truxillo (2014) discovered that most institutions took actions that corresponded with established student retention research. The author also found little difference in the results between institutional types in the study. Conclusions made by the author also state that, "as technology has advanced, the ability to analyze institutional data has increased. This has allowed institutions to more effectively monitor student performance and progression. Internal data analysis strategies assist with the development of early intervention

programs and allow retention programs to be utilized in a more proactive manner" (Schillage-Truxillo, 2014, p. 134). However the author found that although some strategies seemed to offer better retention results than others, duplicating these attempts would not guarantee an increase in retention due to a number of other influencing factors.

While focused on very different aspects of the subject, and employing different methodologies, the work by both Jakiel (2011) and Schillage-Truxillo (2014) represent the preponderance of the critical research conducted specifically on Louisiana's GRAD Act. In each of their respective works, the authors indicated the importance of identifying whether or not the policy was achieving its stated goals. They also stressed the need for further research into the implications of the policy for the state. In drawing these conclusions, the authors also suggested that more accurate results would be available as time progressed and the conclusion of the six-year agreements neared.

Assumptions

When discussing performance funding, the literature often reveals that certain assumptions are made when state governments employ this type of funding methodology to higher education's endeavors. This has not escaped the attention of other researchers who have examined these assumptions and how they influence the stated outcomes of such policies. The research has shown that some origins of the assumptions about performance funding are rooted in management theory, while other assumptions are based in unrealistic expectations (Rabovsky, 2012; Schmidtlein, 1999, 2004; Woodley, 2005).

What is Assumed

Most research examined in this review of literature reveals that while popular, performance funding has met with mixed results. Researchers have examined performance funding through a variety of lenses including political, fiscal, and social. Both qualitative and quantitative study has been utilized to draw conclusions about its effectiveness. Most researchers concluded that additional empirical study was warranted on many aspects of this sort of funding approach (Bogue & Johnson, 2010; Dougherty et al., 2012; Jakiel, 2011; Layzell, 2007; Rabovsky, 2012; Schmidtlein, 1999, 2004). Nonetheless, many states have found it to be an attractive alternative to other budgeting schemes and often implement it as policy before fully comprehending the implications. "U.S. states have largely used 'incremental' and 'formula' budgeting processes to fund higher education. However, more than half of them are experimenting with some form of 'performance budgeting'" (Schmidtlein, 1999, p. 157). In his work, Schmidtlein (1999) stated that government has specific and legitimate concerns about the effectiveness and efficiency of its allocation of public resources, most notably in higher education.

Schmidtlein's (1999) research revealed more than a half dozen common assumptions, underlying interest, and implementation of performance funding. His work indicated that assumptions are made about the knowledge and ability of campus leaders to improve quality. A major hurdle his work showed is the assumption by the general public that governments would enact clearly enunciated and reasonably stable policy objectives. His research found this can often be untrue. His work also explored assumptions about which measures of quality can be agreed upon; about how a bureaucratic approach at the institutional level can influence the quality of outcomes; and that some sort of system can be put into place to actually provide

evidence of such quality improvements. The author also discussed the assumption that "the link between resources and outcomes in an institution can be observed and performance altered by manipulating resource inputs" (Schmidtlein, 1999, p. 168). Most of the assumptions he revealed contained significant roadblocks to conceiving, implementing and ensuring the continued stable endurance of a performance funding policy for higher education. He labeled nearly all of these assumptions as very difficult, a few unrealistic, and some as entirely inaccurate.

Schmidtlein's (1999) work used extensive document research and historical context to provide a qualitative view of the current status of assumptions being made in higher education funding. In his work though he also does conclude that

> A common assumption about the nature of accountability holds that tax supported institutions perform a public service and, therefore, should be fully accountable to the elected officials who represent taxpayers. Those holding this view also frequently assume governmental budgetary policies, practices, and structures can be created or altered in ways that will ensure such accountability…
>
> However, the budget is a rather blunt tool for intervening in the complex trade-offs involved in internal institutional decision making. In addition, as noted earlier, there are strong arguments for limiting governments' ability to influence institutional decisions. Rather than increasing government imposed accountability, a contrary assumption holds that institutions should have considerable autonomy. They perform an intellectual and critical role in society that transcends popular, and often transitory, interests and fads. Therefore, they need to be insulated from an overly rigorous accountability to the government and the public that might stifle their longer-term, less immediately practical, interests and their function as havens for social critics. From this perspective, accountability to the government must be balanced by accountability to members of the profession, particularly researchers and scholars, and to the many other interest groups and institutions they serve, thus protecting freedom of inquiry, experimentation and diversity. (Schmidtlein, 1999, p. 170)

Ultimately, Schmidtlein (1999) concluded that performance funding was burdened with difficulties that needed to be overcome before truly successful implementation could find accord in the majority of states. His work stressed though that cooperation in all steps was needed from business, government, higher education, and special interests working together.

In his work, Rabovsky (2012) explained that, although there are various forms of accountability policies, greater attention has been given to them in the last decade as government seeks to control cost in an environment of increasingly strained budgets. He went on to explain that "proponents argue that public administrators will react to performance-based incentives by adopting management strategies that increase efficiency and improve performance" (2012, p. 677). This, of course, reveals another assumption. Namely that budgetary policy will have a direct influence of decision making at the institutional level. In fact, Rabovsky expands this further by revealing that many state policies are aimed directly at improving student outcomes, with specific measures often used in performance criteria, but with little direct instruction on how those outcomes are to be achieved.

Institutional Impacts

Researchers have examined the impacts of performance-based funding across the nation and found little evidence that it leads to changes in outcomes in the way originally intended by the states (Dougherty & Reddy, 2011; Hoyt, 2001; Liefner, 2003; Rabovsky, 2012; Sanford & Hunter, 2011; Shin, 2010). Most often, researchers explored the change in the funding formula and how that correlated to changes in desired outcomes such as student retention or graduation rates. Additionally, Rabovsky (2012) examined the overall changes to institutional budgets as impacted by the changes to their funding formula. Several researchers examined the modifications to institutional spending priorities and allocations as a consequence of, either changes to inputs of funding, or in order to meet goals imposed by performance measures (Hoyt, 2001; Liefner, 2003; Rabovsky, 2012). Typically these impacts can be looked at as immediate, intermediate, and ultimate student outcomes. Finally, some of the research also indicated that a number of unintended consequences may have resulted as an effect of the performance funding

having been implemented either at the state or the institutional level (Dougherty et al., 2013; Dougherty & Reddy, 2011; Hoyt, 2001).

Immediate

Dougherty and Reddy (2013) found in their research that "changes in institutional funding are typically the main policy instrument that policy makers have in mind when they consider performance funding and are indeed the most frequently mentioned immediate impact on colleges and universities" (p. 35). While changes to funding may be the most obvious, simply engaging in the requirements of most performance schemes also have immediate and sometimes meaningful impacts on an institution. "Changes in state funding for colleges, colleges' awareness of state priorities and of their own performance relative to those priorities, and colleges' concern about how well they are performing relative to peer colleges can be termed the immediate impacts of performance funding" (Dougherty & Reddy, 2011, p. 3).

Some researchers question whether or not changes to funding formulas had any immediate or gradual impacts to the overall budgets of a state or its individual institutions (Liefner, 2003; Rabovsky, 2012; Sanford & Hunter, 2011; Zumeta, 2011). As noted earlier, Dougherty and Reddy (2013) indicated that changes to institutional funding was one of the most cited immediate impacts, and ultimately the purpose of most performance funding policies. Mostly, they found that positive fiscal changes were intended, but some states embraced programs that included the possibility of a net reduction in funding for institutions. Hou et al. (2011) have observed in their research:

> Outcome-based budgeting systems are very similar to performance based budgeting systems, as both rely on performance measurement data to determine the appropriate allocation of funds. As mentioned earlier, the main difference is the focus on outcomes, which tend to be qualitative, versus outputs, which tend to be quantitative.

> Unlike many other states, the current economic situation has actually made Louisiana's PBB system and its shift toward outcome based budgeting more important in the budgetary decision process. (Hou et al., 2011, p. 381)

While immediate impacts are among the most obvious results observable in institutional outcomes, they are not usually the end goal of most performance funding polices. Some catalyst is also required to turn these immediate outcomes into useful change for intermediate results.

Intermediate

Dougherty and Reddy (2011) state that intermediate results are "involving modifications of institutional policies, programs, and practices—such as changes in instruction and student support services—that will result in the *ultimate* outcomes of interest to policymakers, such as more baccalaureate graduates or higher job placement rates" (Dougherty & Reddy, 2011). However they did observe in their research that most state performance funding programs were quite vague in what intermediate changes were sought by the policy.

Rabovsky (2012) explained the casual logic behind recent implementation of performance funding. As seen in Figure 1, his work illustrated the underlying desired process sought in using this funding approach. "Underlying the causal logic behind performance funding is the belief that organizations will respond to changes in the funding environment by adopting new strategies and techniques to improve performance" (Rabovsky, 2012, p. 679).

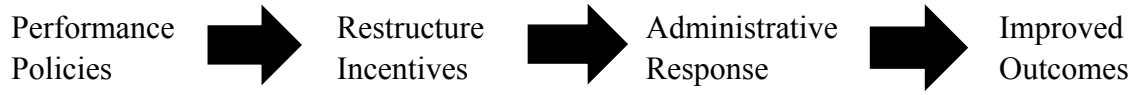


Figure 1. Causal Logic Behind Performance Funding. Source: Rabovsky (2012).

In explaining this logical process, he also indicated that there are significant shortcomings in how policy is applied in the context of the desired outcomes of state performance funding policies:

> The causal logic that underlies performance accountability mechanisms implies that incentives will be restructured in a way that results in changes in management that are geared toward improving performance with respect to client outcomes. Unfortunately, much of the research that examines the impacts of these policies, particularly in the area of higher education, skips the intermediate links in the causal chain and focuses exclusively on whether the adoption of performance policies result in improved student success. (Rabovsky, 2012, p. 279)

In order for such an approach to have an effect, as Rabovsky states, performance-funding policies must have a meaningful impact on the level of support that institutions receive from state governments, and the level of state support should not simply be one of other influences. In this example those other influences could be areas such as the health of the economy or other factors that limit the amount of money that states have to spend on higher education. It is clear by the limited amount of examples researchers have to choose from, intermediate outcomes are the so-called weak link in the planning and implementation of successful policy. It is, as the researchers indicated have cited, the least well-articulated part of most state higher education performance policies. Failure to plan for these intermediate steps when crafting performance funding policy makes it extremely difficult to harness the catalyst needed to realize the intended ultimate outcomes.

Ultimate Outcomes

The ultimate student outcomes required are usually well articulated and obvious in most performance funding programs. Shin (2010) used hierarchical linear modeling growth analysis to study the longitudinal changes in institutional performance. They used data provided from the Integrated Postsecondary Education Data System (IPEDS) to identify changes at nearly 500 four-

year-or-more institutions in the nation from 1993 to 2007. Shin (2010) ultimately concluded that accountability in the form of new performance funding policy "was not effective in changing institutional performance as measured by graduation rates and research funding, this ineffectiveness may not be fully attributable to higher education institutions and their faculty. Rather, states might fail to fully put in place the components of the new accountability reforms" (p. 65).

Shin (2010) did explain some of the common indicators used to determine ultimate student outcomes needed to satisfy performance funding requirements. His research revealed that "in performance-based accountability, teaching (or education) performance is measured by diverse indicators such as graduation rates, graduates' satisfaction of their college education, student transfer rates, licensure test scores etc." (Shin, 2010, p. 52). This aligns with the attention Louisiana placed on certain indicators when clarifying the details of the GRAD Act in 2011. Emphasis was placed on measures to "include graduation rate, retention rate and number of completers" (Louisiana Board of Regents, 2011a, p. 1). Largely it is these sorts of ultimate goals that are kept in mind when determining performance funding policy.

Some ultimate outcomes seek to gain further insight into institutional performance. Skill assessments, licensure exams, and degree qualifications framework are examples of direct measures of learning. For example, one measure of learning outcomes could be to determine whether students graduating from particular fields, institutions, or sectors pass licensure exams required to practice in a specified field (i.e., nursing). Indirect measures are suggested to include acceptance rates for graduate education, employer and alumni surveys, and job placement rates for recent graduates. An example of the purpose of these measures would be to determine whether students graduating from particular fields, institutions, or sectors are employed within a

certain timeframe. Any learning environment measure should include items such as student surveys and academic audits in order to ensure accurate results. Finally, metrics such as workforce projections, credentials awarded, educational attainment, student migration, time and credits to credential, enrollment, enrollment in remedial education, success in remedial education, transfer rates, state appropriations, tuition revenue, and graduation rates are all common metrics that can be utilized to provide a complete and complex picture of an institution. They will also reveal trends and changes to the environment, which decision makers can then use policy to impact.

To better understand the impacts and implications from immediate, intermediate, and ultimate student outcomes, a number of researchers have examined the phenomenon. Among the effects noted by researchers was the change to institutional budget allocations or priorities as institutions attempted to meet requirements often imposed by performance funding initiatives (Dougherty & Reddy, 2011; Liefner, 2003; Rabovsky, 2012). Rabovsky (2012) conducted an extensive examination of available data using several statistical methods and found the results indicated no substantial impact on state budgets or institutional priorities. His study examined 18 states with performance funding policies and performance indicators as part of their funding formula. His data was gathered from IPEDS and encompassed years between 1998 and 2009. He did however indicate that his research revealed that most performance funding policies operate from the idea that institutions do not currently place enough emphasis on student outcomes and that an incentive might encourage them to do so. He indicated that institutions do have strong incentives and are already placing a strong emphasis on these outcomes, and that performance funding has little impact to make these incentives more powerful than they are currently.

In his research Rabovsky (2012) seeks to examine two main points in the area of performance funding in higher education. First, his work seeks to determine how effective performance funding policies have been in reforming state budgets. Second, he examines the data to determine if stronger accountability requirements have actually influenced the way in which institutions of higher education allocate their resources. Rabovsky (2012) acknowledges in his work that performance accountability methods make it easier for policy makers and the public to evaluate public institutions' outputs and impose restrictions or corrective action if the desired results are not received. He also indicates that many criticize these methods as being short sighted, and when implemented poorly, may affect the mission of the institution or have unintended side effects. As with most methods of accountably in the public sector, he believes that the objective is often for policy makers to identify inefficient programs, so that the funds they received may be funneled into effective programs.

In his exploration of available literature, Rabovsky (2012) indicates that numerous researchers have found that performance information has little meaningful impact on budget decisions at the state and federal levels. He cites other authors in stating that performance funding policies are more often symbolic, and that there is little commitment from the policy makers who champion these endeavors. He continues by discussing how the information gathered in the performance reporting is often not used, and even when it is, it is not done so in a neutral or rational way. Ultimately he believes that the policies involving performance funding simply aim to influence the delivery of the outcomes provided to the public sector. Rabovsky (2012) determines through his research that performance funding policies have been largely ineffective in achieving their stated goals. He also determines that although performance funding polices do slightly influence expenditures by institutions, it is by less than 1%.

Interestingly his research indicated that the effects of performance funding are greater on research-intensive universities than those that are non-research based.

In his conclusion, (Rabovsky, 2012) summarizes that his calculations failed to find that performance funding policies have substantial effects on either state budgets or institutional expenditures. He reiterates that many policies are crafted due to the belief that universities administrators do not place enough emphasis on student outcomes. The author acknowledges that it may be possible that most universities already have incentive to ensure the best student outcomes they can without the need for performance funding policies. In his work, the author argues that institutions may need additional resources in order to meet the demands of better outcomes. He does also state that although most of the policies examined did not substantially alter institutional expenditures or priorities, some did have a minimal impact.

Rabovsky (2012) research presented a clear picture of the complex datasets to be examined in the area of performance funding. He visibly differentiated his approach to answering the two main questions in his research. His data and results were presented in a two-stage configuration that identified the results and methods of both stages in a simple and efficient way. Rabovsky (2012) first identified states that had performance funding polices by contacting each state agency responsible for higher education policy. He then identified the levels of funding and the common performance indicators utilized by the various states. He included all public four-year institutions in these states with a Carnegie Classification of a bachelor's or higher, excluding a few specialized institutions. He then developed a formula for his model that determined the outcomes, accounting for error. Results were presented in a table format. Stage two of Rabovsky's research was similar, but he examined expenditures on education related

expenses and accounted for difference in instruction, research, faculty levels, mission and a variety of other factors.

The results as presented were both simple, yet sufficiently complex to capture accurate and usable results. Rabovsky (2012) described not only the background of the issue, but his methodology in a concise and straightforward manner that left little room for disagreement with the results. While his selection of institutions may have been more strict, I do believe his results are sufficiently representative of the state of higher education performance funding in that they provide policy makers with a well-rounded, national level picture

Rabovsky's results and conclusions are applicable on a national scale. The structure of his models also provides a precise state-by-state examination for the results, which can be useful on a more localized level as well. His research suggests that while performance funding has largely fallen short of its goals, it does have a slight impact on how institutions allocate their expenditures and prioritize outcomes. Armed with this information, policy makers can use these results to modify, strengthen, or abandon their chosen performance polices.

Dougherty and Reddy (2011) indicated in their work that institutional funding is an instrument of policy makers when they have performance funding in mind. The premise is that institutions will increase performance if their funding is involved in the measure of the outcomes. In their research however, they found that performance funding had little impact on institution resource allocation because the amounts were typically too small to create significant change. Dougherty and Reddy (2011) did find, however, that another influencing factor was in the awareness of state goals for higher education as indicated by the performance measures in the funding structure. This, coupled with an awareness of the institution's own performance as

reported to the state, was indicated to have some minor influence on institutional priorities for allocation of funds.

Liefner (2003) concluded from his qualitative studies that institutions might have some change to priorities due to performance funding, but that these would be seen greatest at an individual level rather than at an institutional level. For instance, Liefner observed that individual researchers might work more efficiently or decide to become more risk-averse so as to lessen the chances for failure. His observations underscore a significant factor in performance funding which is that policy makers might be seeking one result while inadvertently triggering another.

Intended vs. Unintended Outcomes

The majority of studies in the current literature focus on the effectiveness of changes to funding formulas and whether or not they achieved the desired improvements to measures such as student retention or graduation rates (Dougherty & Reddy, 2011; Liefner, 2003; Sanford & Hunter, 2011; Shin, 2010). Some researchers however have cautioned that careful thought needs to be given to possible unintended outcomes (Dougherty & Reddy, 2013; Hoyt, 2001). Some unintended impacts are mere side effects while others may serve to undermine the intended student outcomes or state funding goals.

A number of researchers discovered during the course of their analysis that various forms of performance funding initiatives resulted in unintended effects not originally considered (Dougherty & Reddy, 2011; Liefner, 2003; Rabovsky, 2012). Liefner (2003) acknowledged in his research that a decrease in research activities might be a consequence of performance based funding as individuals take fewer chances in order to avoid possible negative results. In other words, they would lessen the potential to report outcomes that could lead to reductions in

funding by avoiding those activities that they deemed to be risky. Rabovsky (2012) indicated that effects on institutional spending were influenced by performance funding to a greater degree at public research universities compared to other types of public colleges. Dougherty and Reddy (2011) found that there are a number of immediate and longer-term impacts of performance funding initiatives. First, and most immediate, were changes to funding. Most funding changes added to available budget resources, but some policies had the opposite effect of reducing appropriations or available funds, if performance was deemed insufficient. They also indicated that there were more lasting impacts in areas such as structure of academic programs, student advising, campus services, tutoring and supplemental instruction, job placement services, and institutional planning. While most of these could be considered intentional effects, quite often, Dougherty and Reddy (2011) found that the main intended result, increased retention and graduation rates, were surprisingly unsupported by the data.

When enacting policy shifts such as performance funding, there are both the stated goals, and unintended consequences. Research has shown that there are several major unintended impacts associated with many versions of performance funding (Dougherty & Reddy, 2013). Among these are: cost of compliance, narrowing of institutional mission, restriction of student admissions, and grade inflation and the weakening of academic standards. Most performance funding policies do not include specific institutional level instruction for operation. The cost of everything from the personnel to handle data, the coding to make institutional databases match those of the state, the office space, and the cost of the implementation are left to the discretion of management boards or sometimes the institutions themselves.

Dougherty and Reddy (2013) found in their research that it is possible for significant cost in money and time to be associated with gathering and reporting data for performance funding

measures. They indicated some institutions require increased staff to do collection and reporting. With this new reporting, inconsistencies in institutional data and state requirements can cause "administrative nightmare" (Dougherty & Reddy, 2013, p. 71). These issues could be considered the institutional "cost" of complying with performance funding requirements.

The authors also found that institutions may deemphasize missions that are not rewarded by their performance funding program. Furthermore, their work found that transfer education is a particular concern for institutions with a focus on academic transfer if no indicator for successful transfer is included in performance funding metrics. Dougherty and Reddy (2013) concluded that general education might suffer as time-to-completion considerations contained in funding formulas might prevent students from exploring electives, and force choices in curriculum prematurely. They went on to reveal that metrics in performance funding can narrow the workforce training mission of institutions by rewarding programs that meet funding criteria, artificially increasing graduates in some workforce areas while ignoring the need in areas not addressed by funding formulas. Finally they examined how developmental education often gets either cut back, or far over emphasized to the degree in which resources are diverted away from college-level coursework.

Grade inflation and the weakening of academic standards was another concern Dougherty and Reddy (2013) covered in their work. They found that at some institutions -- when attempting to aid students by removing procedural obstacles such as fees, transfer of credits, or other paperwork -- important and critical educational requirements such as classes might also be removed from the established curriculum, to the detriment of these students. When important intellectual requirements could possibly slow student graduation, some administrators consider weakening the rigor or requirements of such coursework in order to meet graduation

requirements. One example the authors cited was the weakening of standards in a high-level composition course. Their examination also described how administrators, conscious of funding requirements, might also increase pressure on faculty to avoid issuing failing grades. Performance funding metrics for retention, they found, place faculty under increasing pressure to retain every student possible, and to document all attempts to do so. Dougherty and Reddy's (2013) work suggested that these issues in total result in overall pressure to lower academic standards so that more students pass and the institution receives the needed requirements for funding.

The research conducted by Dougherty and Reddy (2013) found restrictions of student admissions to be another possible unintended outcome of performance funding. Their work indicated institutions can restrict admission of underprepared students in an effort to boost their graduation and retention rates, a phenomenon known as "creaming" (Dougherty & Reddy, 2013, p. 75). Institutions may also restrict admission to some programs to promote quality. They also reported that important educational programs might be decommissioned due to low graduation rates or job placement rates tied to funding. Other results found that there were limits imposed by institutions on the number of times a student can take a remedial course, that offerings on ESL courses were reduced, and that institutions were not recruiting at high schools with disadvantaged students, all as additional methods employed to restrict student admissions in order to ensure the higher outcomes required to meet performance funding metrics. The authors did state however, that these concerns are fundamentally more difficult to impose at institutions with open enrollment policies, but not impossible.

Dougherty and Reddy (2013) suggested additional exploration in the possibility of a diminished faculty voice in academic governance due to performance funding. They cited

research that faculty might feel as if some goals were set without proper consultation or discussion on their part. They also indicated that policy makers pushing for quick results prevents faculty from engaging in the deliberate style they prefer. These actions also make it extremely difficult to include part-time faculty in discussion or training. The authors end their work on the subject of unintended outcomes of performance funding by observing that "the importance of carefully considering how performance funding programs have to be designed, adopted, and implemented if they are to be effective."

Sanford and Hunter (2011) also examined the impact of adopting performance based funding policies, but focused their efforts on the retention and graduation rates of public four-year institutions in Tennessee. Their study used spline linear-mixed models to analyze the impact of performance funding on graduation rates. This examination covered a 15-year period and incorporated allowances for adjustments by policymakers that tweaked the exact formula of the funding model over time. By the conclusion of the study, they had identified that there was no statistical change in graduation rates due to performance funding effects. In fact, they stated, "our findings suggest that institutions are able to meet the performance requirement without improving their outcomes" (2011, p. 18). While this may, on the surface, seem counter-intuitive, the claim is well supported by the data and methods they present.

In their research Sanford and Hunter (2011) concluded that "public four-year institutions are major organizations, where change occurs incrementally and is often costly" (p. 18). In other words, the authors found that the potential gain from meeting the performance requirements must outweigh the cost of meeting the requirements. They use the example of increasing six-year graduation and retention rates, indicating that to do so would consume considerable time and

resources from the institution. The consequences of not meeting the requirements in a funding policy must therefore be more than the actual cost of meeting them.

Hoyt (2001) researched the impact that student motivation has on the outcomes of educational assessment testing. His overreaching purpose in exploring this link was to illustrate the possible ineffectiveness of basing higher education funding on learning outcome assessments if students were not giving their best efforts to the test instruments. The work discusses not only the motivations that impact the test outcomes, but how using these results as a basis for funding of institutions can result in unexpected and unanticipated results for both funding and for the educational experience of students.

Hoyt's research indicates that regional accrediting associations require outcomes assessments for accreditation, while many states have at the same time implemented some version of performance funding. He then contends that due to this rise in both outcomes assessments and funding practices based upon them, policy makers must strive to ensure that the results are achieved as intended. His article builds upon previous works that note higher education institutions were traditionally funded by enrollment growth, but that legislatures now believe that the expansion of access has compromised the quality of education provided. This, Hoyt claims, citing Burke and Serban (1998), has changed the "budget question from what states should do for their campuses to what campuses did for their states" (p. 72).

Hoyt (2001) indicates that many policy makers now contend that "in addition to educational training, colleges and universities produce basic research, facilitate technology transfer to business and industry, promote business development, offer medical services and hospital care, athletic events, theater and performing arts programs, recreational activities, radio and television programs, and other public services" (Hoyt, 2001). These services, many

legislatures contend, must have a certain level of quality maintained in order to justify the expenditure of state funds. Linking the perceived educational outcomes and quality of learning is one way for legislatures to quantify the extremely complex higher education endeavor. However Hoyt indicates that due to this complexity, multiple types of measures are required to properly assess quality across higher education. Failure to anticipate the differing missions of community colleges, four-year institutions, and research universities may result in unintended outcomes.

In his research, Hoyt (2001) indicates that outcomes measures can take many forms: improvement in performance compared with prior years; increased funding for institutions that perform above national norms; fixed rates for outcomes; and various formulas based on outcomes. He also stresses that these links between funding and the chosen indicator may be direct or indirect depending on the structure decided upon. In states that have embraced performance funding of one sort or another, the amount of appropriations based on the outcomes also varies.

The possible effects from performance based funding are also posited in Hoyt's work (Hoyt, 2001, p. 83). While many policy makers hope that performance-funding policies may foster a new or better climate on campus were learning outcomes are of the highest concern, this may not always be the result. Hoyt indicates that a major concern may be that the process of measuring and reporting the assessment outcomes may cause items not measured to become less important to educators since their funding is not based on these unmeasured items. This can result in departmental or institutional mission creep. Additionally, he points out that faculty may simply teach for the tests, turning their students to repositories of facts rather than individuals

with high-level critical thinking skills. This possible outcome raises concerns about the quality of graduates produced.

Finally, Hoyt (2001) explores the results of his research into student motivation and how it may influence the outcomes upon which funding is based. Many times, indicators such as retention and graduation rates are used in performance funding, but some states have enacted policies that require learning assessments linked to funding. Hoyt (2001) surveyed more than 1,500 students and their self-reported motivational levels on the tests they took. He found that their level of effort influenced the outcomes of the test. Without a proper motivational reason to perform well on the test, the results of their test outcomes could be a poor indicator upon which to base funding of their institution.

Hoyt's (2001) work discusses the complex issue of performance funding in a well-defined and digestible manner. He presents a historical context of the topic while also indicating the current concerns of the issue. He explores a critical concern linking assessment testing to funding for policy makers and uses appropriate examples to make his point. The best results of the research come from the study's main point, which is how student motivation may affect the outcomes of general education learning assessments. Hoyt (2001) studied 1,633 students from Utah Valley State College who had taken the Collegiate Assessment of Academic Proficiency (CAAP) as a learning outcomes measure. His research examined whether this was a valid measure to base performance funding on. He not only utilized test scores, appropriate demographic and categorization data, but also surveyed the students who rated their effort in completing the test. He then utilized Analysis of Covariance (ANCOVA) to identify statistically significant differences in the test scores of students based upon their reported level of effort. His

focus is almost completely on the learning outcome approach that, while import to this work, is only one of what may be a mix of indicators that could be utilized by legislatures.

Hoyt's research did show that the measure of student learning outcomes was inaccurate because most did not give the CAAP test their best effort. According to his findings, substantial numbers of the students reviewed gave the test little or no effort. This would have the result of invalidating the results of the learning outcome measures. Without some sort of motivational factor, this use of outcome testing would be invalidated. Performance funding based on this measure would therefore be inaccurate as well.

Hoyt's findings reveal the complex nature of using specific indicators to determine levels of funding for higher education institutions. Legislators and policy makers who do not properly grasp the factors that contribute to the results of their chosen performance indicators may not reach their intended goals. Furthermore, Hoyt raises the questions of how the selection of measure and indicators themselves may actually influence the environment on a campus. His research illustrates clearly that the CAAP is a poor measure if the students are not somehow motivated to perform at their best for a test that has no impact on their grades or graduation. He also makes a strong argument that there may be unintended consequences in performance funding and that results may be open to manipulation or error.

In Shin's (2010) research, a hierarchical liner modeling growth curve analysis was utilized to measure institutional performance for such outcomes as graduation rates and research levels as impacted by performance based approaches. His methods allowed for an examination of nearly 500 institutions that were identified as four-year masters granting higher education institutions as identified by their Carnegie and Integrated Postsecondary Education Data System classifications. The analysis conducted found that performance based accountability did not

bring about significant changes in institutional performance and therefore often fell short of its intended outcomes.

As indicated by these researchers and others, the often-stated purpose of adopting performance funding to either incentivize or force improvements to selected outcomes, may not be realized. Policymakers have, at times, embraced performance funding to greater or lesser degrees in an effort to improve such outcomes as graduation and retention rates, which are assumed to be influenced by the levels of state appropriated funding. Mounting evidence is showing that either these assumptions may be in error or that not nearly enough of the state appropriation is tied to the outcomes.

Abandonment

As attractive as performance funding has been for many states, it often does not persist as a funding policy. A number of studies have indicated that, since its inception, nearly half of all U.S. states have implemented some form of performance funding model. Over time, more than half of those states have dropped it from their funding formulas (Burke, 2002; Dougherty et al., 2012). Table 3 presents this disparity in approach and satisfaction with the performance funding model, which is difficult to explain. Why do performance funding approaches not persist if they are so attractive to policy makers?

Table 3

States Where Initial Performance Funding System was Terminated: Year of Occurrence

Year	#					
1996	1	Colorado				
1997	2	Arkansas	Kentucky			
1998	1	Minnesota				
1999	1	Washington				
2000	0					
2001	0					
2002	5	Florida WDEP*	Missouri	Illinois	New Jersey	Oregon
2003	1	S. Carolina				
2004	0					
2005	0					
2006	0					
2007	0					
2008	2	Georgia	Kansas			
2009	0					
2010	0					

Sources: As presented by Dougherty et al. (2012, p. 4), Burke (2002); Burke & Minassians (2003); Burke & Modarresi (2000); Dougherty & Reid (2007); interviews. *Florida Workforce Development Education Program.

Dougherty et al. (2012) sought to explain this contradiction in their research. Using a mixed methods approach, they identified a number of factors in the demise and survival of performance funding policies. Their study covered 11 states over a span of 15 years and found both commonalities and unique factors that influenced the longevity of a particular funding approach. Ultimately, they arrived at several conclusions, the most important of which indicated the need for legislators and higher education leaders to work together in establishing effective and lasting policy. Support from the business community and social groups were also found to be necessary in the survival of performance funding policy. Finally, they indicated that stable

funding should be insulated from the ups-and-downs of state budgets. Individual institutions, they found, should see the introduction of performance based funding as new additional funding rather than as a replacement of their existing funds in order for policy and outcomes to endure.

Burke (2002) found a number of factors that affected the sustainability of performance funding endeavors. Their research found that changes in government, management structure reorganization, shifts in state spending priorities, and differences over accountability versus autonomy to all be significant influences on the success or failure of performance funding schemes. Ultimately, Burke (2002) concluded that

> Performance funding is the latest in a series of policies designed to hold public colleges and universities accountable for their performance. From the mid-1980s through the 1990s, states progressively tightened the screws of accountability through a progression of policy initiatives - from outcomes assessment, to performance reporting, and finally to performance funding. All of them attempted to achieve external accountability by setting statewide purposes and goals, while protecting institutional autonomy by leaving the means and methods to campus choice. All of these efforts tried to balance the external needs of states and society with the professional concerns of faculty and administrators. Each policy corrected the faults of its predecessor at the price of introducing new problems. (Burke, 2002, p. 283)

Burke's work did not reveal the fate of performance funding. He did indicate that he believed it was one of several possible avenues available to state fiscal planners and legislative policy makers. He echoed the concern that other researchers have presented in stating that no matter the policy, "state and campus leaders should listen to and learn from the arguments for and against performance funding" (Burke, 2002, p. 281).

Theoretical Underpinnings

A number of underlying theories have been presented in regards to performance finding approaches. Most are related to the causal logic behind performance funding discussed by Rabovsky (2012) (see Figure 1). Researchers who believe higher education works as a large complex organization attribute possible influence from management theory. Resource

dependence theory as described by Pfeffer and Salancik (2003) is also considered to be an underlying notion of performance funding.

Management Theories

Theories of practice from the corporate world being applied to higher education, such as management by objectives, are important to understanding the way in which legislature and the public apply policy to higher education in order to influence desired outcomes. Much of the thought behind performance funding is similar to, or even directly linked to, various management theories. Woodley (2005) cites adoption of corporate management practices as the basis for many performance-funding approaches. She explores management by objectives and the balanced scorecard theories as specific methodologies having been adopted by the higher education sector from the business sector. She credits the natural lifecycle of higher education and the increased pressure from fiscal concerns as the major influences of adopting these practices.

Woodley (2005) describes a similar thought process that Rabovsky (2012) and others have also explored. Government, wishing to influence outcomes without direct intervention, utilizes budgetary policy to enact change. This is hardly a new approach. Much of the consideration here is that through managerial decisions, approaches, and prioritization, an institution or higher education system within a state will enact programs or otherwise make adjustments which are intended to result in improved outcomes. "Commercial practices may have become more obvious, but they are hardly a new phenomenon in American higher education" (Bok, 2005, p. 2).

Resource Dependence Theory

Either with purposeful intent or through an alignment of goals, outcomes, and consequences that produce the same end result, much of the GRAD Act, and many other performance funding schemes developed by various states, are consistent with Resource Dependence Theory. "Governor Jindal emphasized that the act's fundamental goal is to improve performance at Louisiana's colleges and universities and make more Louisiana students graduates of their programs" (Office of the Govenor, 2010a). This is being done in such a manner as to measure the success of an institution based on metrics or indicators, and connecting funding to those outcomes. Doing so will potentially influence the behavior of these institutions. Pfeffer and Salancik (2003) researched how an organization's dependence on external resources can influence their behavior. In this case, the state's fiscal support of higher education can provide a power base from which the state can use to influence the behavior of institutions. Often this is done to align higher education outcomes to some desired goals of the state.

As indicated elsewhere in this paper, performance funding is one method that states utilize in attempting to make an organization more effective. Pfeffer and Salancik (2003) indicate in their work that their view "is that organizations survive to the extent that they are effective. Their effectiveness derives from the management of demands, particularly the demands of interest groups upon which the organizations depend for resources and support" (p. 2). They further defined the effectiveness of an organization as "its ability to create acceptable outcomes and actions" (Pfeffer & Salancik, 2003, p. 11). They did however acknowledge that the question of effectiveness is a sociopolitical one and that while it could be considered an economic evaluation, it was not restricted to such considerations. Their findings were that effectiveness could also be considered for decision making by "both an assessment of the

usefulness of what is being done and of the resources that are being consumed by the organization (Pfeffer & Salancik, 2003, p. 11). Policies such as the GRAD Act rely on this understanding of Resource Dependency Theory in order for their implementation to achieve their stated goals.

A Policy of Action

Performance funding has been implemented most often with the aim to improve student outcomes by realizing improvements in institutional performance. Due to the situational environment in Louisiana, the legislature decided to implement the GRAD Act as policy for higher education financing in hopes of increasing the outcomes they deemed important to the state. It is believed that a consequence of the performance funding approach will be an improvement in selected outcomes at the institutional level. Argyris and Schön (1996) describe approaches such as this as "theories of action." In describing their overall nature, they state that

> The general form of a theory of action is: If you intend to produce consequence C in situation S, then do A. Two further elements enter into the general schema of a theory of action: the values attributed to C that make it seem desirable as an end-in-view and the underlying assumptions, or model of the world, that make it plausible that action A will produce consequence C in situation S. (Argyris & Schön, 1996, p. 13)

Therefore, performance-funding policy as it is being applied in Louisiana is one of action. This theory of action concept agrees with the resource dependence view. In other words, as described by Pfeffer and Salancik (2003), institutions are strongly shaped by the degree and form of resources which come from their external environment. Burke (2002) agrees with this perspective and has indicated that if the funding involved were significant enough, higher education institutions, being revenue maximizers, would make a strong effort to improve the performance linked to such funding. Performance funding, as it is commonly applied, relies on

this theory of action to realize the desired student outcomes upon which performance indicators are based when allocating funds.

Conclusion

While extensive literature exists regarding performance funding, there also exists a wide gap in the research. As most researchers cited here have noted, there is a lack of serious empirical research to support conclusions about the observed outcomes after performance funding has been implemented in various states. Many of the performance funding success stories are based upon anecdotal evidence and cannot be reliably used as the basis for further conclusions or decisions about state or institutional policy. Study of Louisiana's success or failure with this funding approach is all but absent in the current literature that has examined other states much more closely.

Tennessee, being the first state to implement what is now understood to be performance funding, has the longest history with the subject and, therefore, has been studied the most extensively (Banta, 1986; McLendon & Hearn, 2013; Sanford & Hunter, 2011). Other states often look to Tennessee's experience and embrace performance-funding policies based on their perceived success with it. This compounds the issue greatly because most states implement their own version of performance funding, which may differ greatly from Tennessee's. As of 2013, 22 states had some sort of performance based budgeting in place, but great variety exists in how each state applies their formula (Friedel et al., 2013). Louisiana's GRAD Act is very different in both form and function from other state initiatives with performance funding. Since it is a relatively new phenomenon, little critical scholarly work exists on Louisiana's version of performance funding. The current study seeks to address this gap by producing empirical data that will add to the body of literature.

CHAPTER III:

METHODS

The state of Louisiana changed the method it utilizes for the funding of higher education in 2010. This new funding method incorporated performance funding as an incentive for institutions to increase their outcomes, and to provide a measure of accountability in the higher education system of the state. The results of these changes have yet to be studied sufficiently.

This study analyzed current data in understanding fiscal and student outcomes. In particular, changes to funding levels and sources, as well as the changes to selected performance indicators were explored. This information can now be analyzed and interpreted for the use of state policy makers, educational leaders, and various other stakeholder groups. While the state has extensive data collected from each institution, it is unknown at present how the various factors are related to one another. Yearly reports indicate progress towards meeting GRAD Act goals, but do not compare results with years prior to the Act's implementation. Analysis and interpretation conducted for this study provide the state with useful information in order to decide how and where to allocate limited resources, that the state may meet it goals.

In describing the methodology of the study, first an overall introduction to the approach taken will be provided. This is followed by a description of the study population and its selection process. In doing so, Louisiana's board structure is explored, the state environment examined, and an extensive description of each institution is presented. Data sources and their use follow the description of each institution. The variables of the study are then presented. The methods of data analysis follow the variable descriptions. The research questions this study

seeks to answer are then restated alongside with an expanded description of the intended question the quantitative data answers. Use and security of data then precedes the summary to complete the chapter.

Introduction to Overall Research Approach

The nature of this study is a quantitative analysis of available data. Quantitative research is consistent with understanding the results of the performance indicators, operational results, and funding levels of the institutions in this study. While some data gathered in the course of this study was qualitative in nature, pinpointing the quantitative measures required in the LA GRAD Act provide for efficient methods of comparison and analysis over time.

The objective of this performance-funding study was two-fold: 1) to examine the change in funding amounts and structure of Louisiana higher education in pre- and post-GRAD Act years, and; 2) to investigate the first five years of educational outcomes required in the GRAD Act. Specifically the study focuses on institutional-level state support and tuition and mandatory fee changes beginning with the passage and implementation of the Act in 2010. Additionally, the change in educational outcomes in the form of achieving specific student success performance indicators will be examined. This allows for extensive research into the results that resource dependency and performance metrics have on institutional, system, and state outcomes. Prior research indicates that performance funding has not had significant impacts on the selected indicators that represent increased educational outcomes (Dougherty & Reddy, 2011; Hoyt, 2001; Liefner, 2003; Rabovsky, 2012; Sanford & Hunter, 2011; Shin, 2010). This current study aids in determining the significance of Louisiana's performance funding approach as it impacts higher education in the state. A quantitative study exploring funding and selected performance

indicators over a period of time examining this legislative act may be valuable now and in the future to educators, legislators, and the public.

The primary objective in conducting this study was to identify changes in selected performance indicators and state fiscal support at each of the included institutions. Once this information was derived, the goal of this study is to inform policy makers of the impacts of funding change and if the stated goals of the GRAD Act have been achieved as intended. According to work by Popkewitz and Tabachnick (1981) "research and development activities are regarded as prime sources for rationally planned and executed change. Research supposedly tests alternative paths, where choice between various alternatives is governed by careful deliberation on the merits of the scientific data gathered" (p. 34). With an increased understanding of the implications of the effects of the GRAD Act policy, legislators may be better able to make informed decisions regarding the structure and amount of funding for higher education in the state of Louisiana. Creswell indicates that this sort of study not only aids educators in becoming better practitioners but that it also "provides information to policy makers when they research and debate educational topics" (2012, p. 6). Although the raw data for this study may exist elsewhere, it is not as useful to policymakers in that it has not been critically examined in a scholarly fashion within the context of similar works. "When policy makers read research on issues, they are informed about current debates and stances taken by other public officials. To be useful, research needs to have clear results, be summarized in a concise fashion, and include data-based evidence" (Creswell, 2012, p. 6).

This research was conducted with the underlying approach of positivism in that reality is observable, stable, and measurable. This philosophy holds the view that knowledge gained through study is scientific and follows established laws (Merriam, 2009). The positivist

approach also acknowledges the desire to predict, control, or generalize the reality of the environment and that there is cause and effect in reality (Creswell, 2013; Merriam, 2009). This objective reality can be studied using scientific means such as quantitative research methods. By collecting and examining numerical data about a phenomena, it can be used to further investigate and understand reality (Gall, Gall, & Borg, 2007). This study used statistical methods to do so. Quantitative data analysis and correlational designs are appropriate in identifying trends in the population and relation of one or more variables in the study population (Creswell, 2012).

Study Population

The 2010 Carnegie Basic Classification system was used to identify the institutions to be examined in this study. The individual institutions are limited to those inside the geographic boundaries of the state of Louisiana. Specifically this study focuses on the four-year public, non-specialized comprehensive institutions within the state. The population identified represents institutions from 3 of Louisiana's system boards, and five of the Carnegie's system of classification types. This provided the study of the entire actual student population attending Louisiana's public, four-year, non-specialized, yet comprehensive higher education institutions.

The study analyzed the entire population of Louisiana public comprehensive four-year-or-more institutions. The institutions selected bestow at least a bachelor's degree, while some institutions provide for masters, or doctoral degrees. Although baccalaureate and master's studies are the bulk of degrees offered by these institutions, the study population also includes several institutions that conduct research level work. Because law and medical schools operate very differently in form, function, and funding from comprehensive institutions, they are not considered in this study. Similarly, community and technical schools were not examined as part of the study population.

As seen in Table 4, the study population was comprised of fourteen institutions: Louisiana State University, LSU – Alexandria, LSU – Shreveport, University of New Orleans, Southern University A&M, Southern University New Orleans, Grambling State University, Louisiana Tech University, McNeese State University, Nicholls State University, Northwestern State University, Southeastern Louisiana University, University of Louisiana at Lafayette, and the University of Louisiana at Monroe. Collectively these institutions enroll more than 135,000 students and represent all geographic regions of the state. Institutions are comprised of bachelors, masters, and research institutions. Louisiana State University is the flagship institution of the state, but historically black colleges and universities, as well as regional, and satellite campuses are also included in this population.

Table 4

Louisiana Colleges/Universities by Governing System Affiliation and Carnegie Classification

Institution	Carnegie Classification	System
LSU	Research Universities (very high research activity)	Louisiana State University System
LSU - Alexandria	Baccalaureate Colleges--Arts & Sciences	Louisiana State University System
LSU - Shreveport	Master's Colleges and Universities (medium programs)	Louisiana State University System
University of New Orleans	Research Universities (high research activity)	Louisiana State University System
Southern University A&M	Master's Colleges and Universities (larger programs)	Southern University System
Southern University New Orleans	Master's Colleges and Universities (medium programs)	Southern University System
Grambling State University	Master's Colleges and Universities (medium programs)	University of Louisiana System
Louisiana Tech University	Research Universities (high research activity)	University of Louisiana System
McNeese State University	Master's Colleges and Universities (larger programs)	University of Louisiana System
Nicholls State University	Master's Colleges and Universities (medium programs)	University of Louisiana System
Northwestern State University	Master's Colleges and Universities (larger programs)	University of Louisiana System
Southeastern Louisiana University	Master's Colleges and Universities (larger programs)	University of Louisiana System
University Louisiana Lafayette	Research Universities (high research activity)	University of Louisiana System
University Louisiana Monroe	Master's Colleges and Universities (larger programs)	University of Louisiana System

Note. This list represents the entire population of students enrolled in Louisiana's four-year public, non-specialized, comprehensive colleges and universities at the passage of the GRAD Act in 2010 to be used in the study.

It is important to note that Louisiana's higher education system is actually two-tiered. Policy and funding decisions made at the state level are given to the Louisiana Board of Regents, whose powers are detailed in the state constitution. The Board of Regents is also responsible for determining the dispersal of state appropriated funding and for the management of the GRAD Act. A breakdown of the board structure in Louisiana can be seen in Figure 2. The Board of Regents represents the first tier with the individual system boards as the second tier in Louisiana's two-tiered system of higher education governance (Louisiana Board of Regents, 2014).

Ultimately the respective system board oversees the operational management of individual institutions, while the Board of Regents conducts policy work including statewide academic planning and review, budgeting and performance funding, research, and accountability.

> Louisiana is one of 23 states with a statewide coordinating policy board - the Board of Regents. Governance of individual institutions is left to the appropriate system board. There are four system boards: the Board of Supervisors of Community and Technical Colleges governs all technical colleges and the majority of community colleges; the Board of Supervisors of Southern University and Agricultural and Mechanical College governs the majority of HBCU institutions; the Board of Supervisors for the University of Louisiana System governs the majority of the regional four-year institutions; and, the Board of Supervisors of Louisiana State University and Agricultural and Mechanical College governs the flagship university and the majority of professional and medical school. (Louisiana Postsecondary Education Review Commission, 2010, p. 20)

In addition to the four management boards listed above, the Board of Regents also oversee the operations of the Louisiana University Marine Consortium (LUMCON) as well as Louisiana's private institutions of higher education.

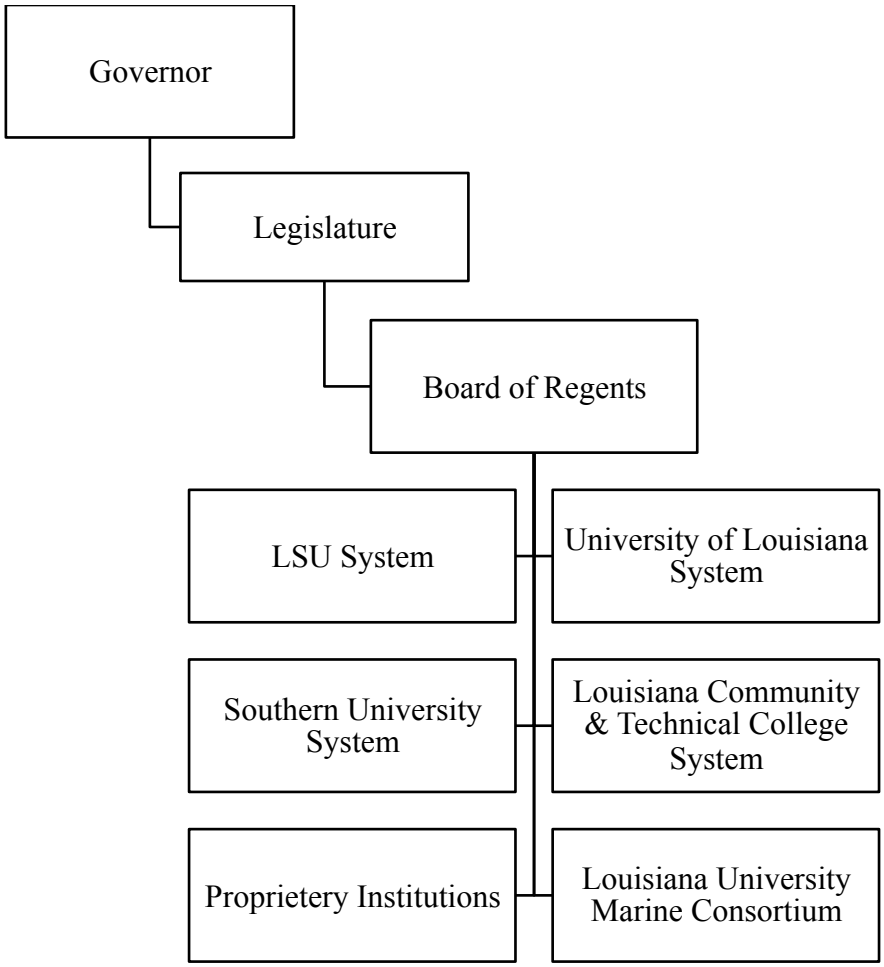


Figure 2. State and School Board Structure in Louisiana.

In order to fully appreciate the results of the study, it is important to be familiar with the sites in which the data was collected. Although coordinated by the Board of Regents, each system, and therefore each institution, have unique attributes. The 14 institutions that were studied are spread geographically across the state. In addition to being governed by different boards that do not follow the obvious geographic distribution of their location, the institutions themselves have different educational focuses in order to serve the specific communities in which they are located throughout the state. The institutions also have varied levels of enrollment. As seen below Figure 3 illustrates the different identified regions of the state, while

Table 5 shows some specific institutional traits. The eight regions of the state are divided up along parish lines as: 1) Northwest Area; 2) Northeast Area; 3) Southwest/Central Area; 4) Acadiana Area; 5) Capital Area; 6) Florida Parishes Area; 7) South Central Area; and 8) Southeast Area (Louisiana Postsecondary Education Review Commission, 2010, p. 82).

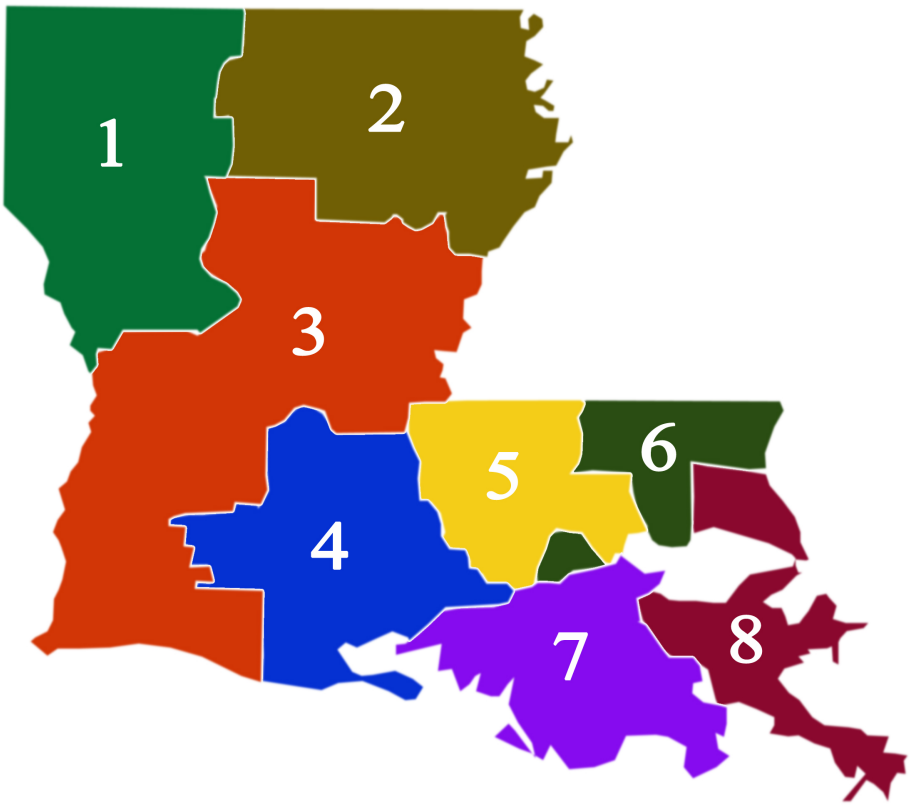


Figure 3. Eight Regions of Louisiana. Source: Louisiana Postsecondary Education Review Commission (2010).

Table 5

Institutions by Enrollment, City, Region, and Type

Campus	Enrollment[1]	City	Region[2]	Type
Louisiana State University System				
LSU	30,225	Baton Rouge	5	4-yr, Flagship
LSU - Alexandria	2,407	Alexandria	3	4-yr
LSU - Shreveport	4,535	Shreveport	1	4-yr
University of New Orleans	10,071	New Orleans	8	4-yr
Southern University System				
Southern University A&M	6,397	Baton Rouge	5	4-yr, HBCU
Southern University New Orleans	2,820	New Orleans	8	4-yr, HBCU
University of Louisiana System				
Grambling State University	5,277	Grambling	1	4-yr, HBCU
Louisiana Tech University	11,304	Ruston	1	4-yr
McNeese State University	8,584	Lake Charles	3	4-yr
Nicholls State University	6,602	Thibodaux	7	4-yr
Northwestern State University	9,447	Natchitoches	1	4-yr
Southeastern Louisiana University	15,591	Hammond	6	4-yr
University Louisiana Lafayette	16,688	Lafayette	4	4-yr
University Louisiana Monroe	8,548	Monroe	2	4-yr

Notes. The 14 listed institutions comprise the population of the study. [1] Enrollment by gender, student level, and full- and part-time status: Fall 2012. Source: National Center for Education Statistics (2015b). [2] Region listed by area of state (see Figure 3). Source: Louisiana Postsecondary Education Review Commission (2010).

While the preceding tables and figures show organizational structure, geographic distribution, and limited institutional traits, additional understanding and context for the study by having a brief description of each institution is also useful. Complete institutional mission statements provided via each institution's own self-hosted websites are included in the study as Appendix A. Also included in Appendix A is the Carnegie Classification description, COC/SACS level, and SREB category of each institution. The following statements and

descriptions also aid in understanding and interpreting the quantitative data this study produced in its analysis. Further examination of statistical differences in outcomes by institutional type and system structure are also explored in the results of this study. The descriptions of the institutions that comprise the population of the study seen below were compiled from institutional mission statements, IPEDS descriptions (National Center for Education Statistics, 2015b) and information provided by the Louisiana Postsecondary Education Review Commission (2010, pp. 51-62).

Louisiana State University System

Louisiana State University and Agricultural and Mechanical College. As the State's flagship institution, the mission of Louisiana State University and Agricultural & Mechanical College (LSU) is to advance, preserve, disseminate, and apply knowledge, and to cultivate the arts for the benefit of the people of the state, the nation, and the global community. Located in the state capitol of Baton Rouge, its teaching, research, and service programs span the arts and humanities, the social sciences and the sciences, and include professional education in a wide range of areas. It maintains the state's only School of Veterinary Medicine. It maintains the Middleton Library as the state's premier public university research library. In its role as a land-grant college, LSU has a legal mandate and responsibility for statewide service and enjoys national and international recognition and appeal for both academics and athletics. LSU seeks to maintain academic preeminence as the premier research university of Louisiana. It maintains the most rigorous undergraduate admissions requirements in Louisiana's public system of postsecondary education. The majority of the enrollment at LSU is upper division undergraduate students and graduate students. The university offers a wide array of doctoral programs sustained by active faculty and students engaged in research, discovery, and creative activity.

LSU has a broad range of research programs with extensive grant and contract activities (Louisiana Postsecondary Education Review Commission, 2010; Louisiana State University, 2015; National Center for Education Statistics, 2015b).

Louisiana State University at Alexandria. Louisiana State University at Alexandria (LSUA) is a four-year, public university in Central Louisiana that awards associate and baccalaureate degrees. The University has earned a reputation for providing a high quality, broad-based education to traditional college students and aspiring adult learners. Focusing on undergraduate education, LSUA's transfer and baccalaureate degree programming includes a wide range of student support services, learning options, and professional development offerings as well as opportunities for independent and guided research and fieldwork. LSUA's faculty seek to provide a comprehensive college experience in majors ranging from allied health and criminal justice to general or liberal studies (Louisiana Postsecondary Education Review Commission, 2010; LSU-A, 2015; National Center for Education Statistics, 2015b).

Louisiana State University in Shreveport. Louisiana State University in Shreveport (LSUS) is a major educational and economic development resource for the Shreveport/Bossier metropolitan area and the Ark-La-Tex region. The University is known for developing strategic academic alliances that address the personnel and advancement needs of the region and state. As a regional comprehensive public institution, LSUS offers courses and degree programs at the undergraduate and graduate level, aligning classroom education with practical knowledge produced by experiential learning. LSUS strives to stay attuned to the economic and societal needs of the Shreveport/Bossier metropolitan area and works closely with multi-parish groups to provide insights and analysis, scholarly resources, and educational outreach in partnership with area schools. Through a close working relationship with the City of Shreveport, LSUS meets the

comprehensive educational and research requirements of the United States Air Force at Barksdale Air Force Base as part of the US Department of Defense's increasingly important cyberspace initiatives. LSUS' Bioinformatics research group, built in conjunction with LSU Health Sciences Center Shreveport, capitalizes on a broad range of intellectual capital in the Ark-La-Tex by encouraging collaborations among health care professionals, scientists, researchers, faculty and students (Louisiana Postsecondary Education Review Commission, 2010; LSU-S, 2015; National Center for Education Statistics, 2015b).

University of New Orleans. The University of New Orleans (UNO), a major research university, drives and supports the development of the educational, economic, cultural, and social well being of the New Orleans metropolitan area. The university's research and curricula support the globalization of both New Orleans and the state of Louisiana. The university strategically serves the needs of the region and builds on its success through mutually beneficial engagements with public and private bodies, the missions and goals of which are aligned with and supportive of UNO's teaching, research, and community service objectives. The university's technological and cultural alliances connect the institution, its faculty, and its students to the community. Joint projects with public schools, governments, foundations, businesses, and civic groups enrich opportunities for learning and community growth. Graduate study and research are integral to the university's purpose. Doctoral programs focus on fields of study in which UNO has the ability to achieve national competitiveness or to respond to specific state or regional needs (Louisiana Postsecondary Education Review Commission, 2010; National Center for Education Statistics, 2015b; University of New Orleans, 2015).

Southern University System

Southern University and Agricultural and Mechanical College. Operating since 1880 under the guiding principle that an educated citizenry makes a better state for all Louisianans, Southern University and A&M College (SUBR) embraces a singular mission: to build a strong citizenry by educating and empowering the underrepresented (low income and/or minority) segments of the state's population. Also located in the state capitol of Baton Rouge, SUBR prepares students to compete globally in their respective professions and to engage in advanced study in graduate and professional schools. The University provides a broad program of research and creative work to stimulate students quest for knowledge and to aid in addressing societal challenges. Through its land-grant components, SUBR provides alternative educational experiences, supportive services, and work-enhancing skills development to add value to the lives of its students and community. SUBR aspires to be the nation's premiere public Historically Black College and University and one of its most engaged land grant institutions. The institution does so by conducting groundbreaking projects, which add to the economic viability of Louisiana, creating new works of performance and visual arts that contribute to the cultural capital of the Louisiana community. The university also seeks to develop new methodologies for serving the community and improving the living conditions of all Louisiana families. A primary focus of SUBR is in providing access to an education in an environment that addresses the special circumstances and needs of persons from underrepresented populations (Louisiana Postsecondary Education Review Commission, 2010; National Center for Education Statistics, 2015b; Southern University, 2015).

Southern University at New Orleans. Southern University at New Orleans (SUNO) primarily serves the educational and cultural needs of the Greater New Orleans metropolitan area. SUNO seeks to provide an environment conducive to learning and growth, promoting the upward mobility of its students by providing a quality education tailored to prepare them for full participation in a complex and changing society. As a Historically Black College and University, the institution provides instruction for all categories of college students, including the area's working adults who seek to continue their education in the evening or on weekends. Its programs encompass both the achievement of higher literacy and broad intellectual development. As an institution of the Southern University System, SUNO provides services and programming designed to address and eliminate poverty in the state of Louisiana. In this regard, the institution incorporates land grant components to facilitate the upward mobility of low income, underserved and underrepresented citizens, working with other state, local and federal entities to add enhanced value to their lives and increase assets in the community (Louisiana Postsecondary Education Review Commission, 2010; National Center for Education Statistics, 2015b; Southern University at New Orleans, 2015).

University of Louisiana System

Grambling State University. Grambling State University (GSU) is a comprehensive institution that offers a broad spectrum of undergraduate and graduate programs of study. The University embraces its founding principle of educational opportunity as a Historically Black College and University, is committed to the education of minorities in American society, and seeks to reflect in all of its programs the diversity present in the world. The university prepares its graduates to compete and succeed in careers, to contribute to the advancement of knowledge, and to lead productive lives as informed citizens in a democratic society. It seeks to provide a

living and learning environment to nurture students' development for leadership in academics, athletics, campus governance, and future pursuits. Grambling advances the study and preservation of African American history, art and culture, and seeks to foster in its students a commitment to service to improve the quality of life for all (Grambling State University, 2015; Louisiana Postsecondary Education Review Commission, 2010; National Center for Education Statistics, 2015b).

Louisiana Tech University. Louisiana Tech University seeks to advance the state of knowledge, to disseminate knowledge, and to provide strong outreach and service programs and activities. The university maintains a strong research creative environment, and intellectual environment that encourages the development and application of knowledge. Recognizing that service is an important function of every university, Louisiana Tech provides outreach programs and activities to meet the needs of the region and the state. Louisiana Tech views graduate study and research as integral to the university's purpose. Committed to graduate education through the doctorate, it conducts research appropriate to the level of academic programs offered and has a defined ratio of undergraduate to graduate enrollment. Doctoral programs focus on fields of study in which the university has the ability to achieve national competitiveness or to respond to specific state or regional needs. As such, Louisiana Tech provides leadership for the region's engineering, science and business innovation (Louisiana Postsecondary Education Review Commission, 2010; Louisiana Tech University, 2015; National Center for Education Statistics, 2015b).

McNeese State University. McNeese State University is a comprehensive institution that provides leadership for educational, cultural, and economic development for southwest Louisiana. It offers a wide range of baccalaureate programs and select graduate programs

appropriate for the workforce, allied health, and intellectual capital needs of the area. The institution promotes diverse economic growth and provides programs critical to the oil, gas, petrochemical, and related industries operating in the region. The University allocates resources and functions according to principles and values that promote accountability for excellence in teaching, scholarship and service, and for cultural awareness and economic development. McNeese emphasizes teaching excellence to foster student access and success, and it seeks partnerships and collaboration with community and educational entities to facilitate economic growth and diversity in Southwest Louisiana. Instructional delivery via distance learning technology enables a broader student population to reach higher education goals (Louisiana Postsecondary Education Review Commission, 2010; McNeese State University, 2015; National Center for Education Statistics, 2015b).

Nicholls State University. Nicholls State University is a comprehensive, regional, selective admissions university that provides a unique blend of academic programs to meet the needs of Louisiana and beyond. For more than half a century, the University has been a leader in postsecondary education in an area rich in cultural and natural resources. While maintaining major partnerships with businesses, local school systems, community agencies, and other educational institutions, Nicholls actively participates in the educational, social, and cultural infrastructure of the region. Nicholls' location in the heart of South Louisiana and its access to the Gulf of Mexico and to one of the nation's major estuaries provide valuable opportunities for instruction, research and service, particularly in the fields of marine biology, petroleum technology, and culinary arts. Nicholls makes significant contributions to the economic development of the region, maintaining a vital commitment to the well-being of its people through programs that have strong ties to the health care industry in the Thibodaux-Houma

metropolitan area, to area business and industry, and to its *K-12* education system (Louisiana Postsecondary Education Review Commission, 2010; National Center for Education Statistics, 2015b; Nicholls State University, 2015).

Northwestern State University of Louisiana. Located in rural Louisiana between the population centers of Alexandria and Shreveport, Northwestern State University serves a wide geographic area between the borders of Texas and Mississippi. It serves the educational and cultural needs of the region through traditional and electronic delivery of courses. Distance education continues to be an increasingly integral part of Northwestern's degree program delivery, providing flexibility for serving the educational needs and demands of students state government, and private enterprise. The university's Leesville campus, in close proximity to the Ft. Polk U. S. Army base offers a prime opportunity for the university to provide educational experiences to military personnel stationed there, and, through electronic program delivery, to armed forces throughout the world. Northwestern is also home to the Louisiana Scholars College, the state's selective admissions college for the liberal arts (Louisiana Postsecondary Education Review Commission, 2010; National Center for Education Statistics, 2015b; Northwestern State University of Louisiana, 2015).

Southeastern Louisiana University. The mission of Southeastern Louisiana University is to lead the educational, economic, and cultural development of the southeast region of the state known as the Northshore. Located at the crossroads of I-12 and I-55 the university is positioned centrally within an hour of Baton Rouge, New Orleans, and Slidell. Its educational programs are based on evolving curricula that address emerging regional, national, and international priorities. The University promotes student success and retention as well as intellectual and personal growth through a variety of academic, social, vocational, and wellness programs. Southeastern's

credit and non-credit educational experiences emphasize challenging, relevant course content and innovative, effective delivery systems. Global perspectives for students are broadened through opportunities to work and study abroad. Through its Centers of Excellence, Southeastern embraces active partnerships that benefit faculty, students, and the region it serves. Dynamic collaborative efforts range from local to global in scope and encompass education, business, industry, and the public sector. Of particular interest to the institution are partnerships that directly or indirectly contribute to economic renewal and diversification of the surrounding community (Louisiana Postsecondary Education Review Commission, 2010; National Center for Education Statistics, 2015b; Southeastern Louisiana University, 2015).

University of Louisiana at Lafayette. The University of Louisiana at Lafayette (UL Lafayette) takes as its primary purpose the examination, transmission, preservation, and extension of mankind's intellectual traditions. The University provides intellectual leadership for the educational, cultural, and economic development of its region and the state through its instructional, research, and service activities. Graduate study and research are integral to the university's mission. Doctoral programs focus on fields of study in which UL Lafayette has the ability to achieve national competitiveness or to respond to specific state or regional needs. Because of its location in the heart of South Louisiana, UL Lafayette provides leadership in maintaining instructional and research programs that preserve Louisiana's history, including Francophone Studies and the rich Cajun and Creole cultures (Louisiana Postsecondary Education Review Commission, 2010; National Center for Education Statistics, 2015b; University of Louisiana at Lafayette, 2015).

The University of Louisiana at Monroe. A comprehensive senior institution of higher learning, the University of Louisiana at Monroe (UL Monroe) offers a complete educational experience emphasizing a learning environment where excellence is the hallmark. The university dedicates itself to student learning, pure and applied research, and advancing knowledge through traditional and alternative delivery modalities. UL Monroe seeks to serve as a gateway to diverse academic studies for citizens living in the urban and rural regions of the mid-South. The University offers a broad array of academic and professional programs from the associate level through the doctoral degree, including the state's only public Pharm D program. Coupled with research and service, these programs address the postsecondary educational needs of the area's citizens, businesses, and industries (Louisiana Postsecondary Education Review Commission, 2010; National Center for Education Statistics, 2015b; University of Louisiana at Monroe, 2015).

Data Sources for Study

Data sets for the study came from two primary sources. The first dataset was acquired from the Louisiana Board of Regents. The passage of the GRAD Act requires that all institutions report selected information directly to the Board of Regents each fiscal year. This information contains quantitative data regarding the performance indicators contained in the Act. The Board of Regents maintains a website where this information is presented to the public in a "dashboard" format for transparency. The institutional data submitted from the institutions in the study to the BoR was requested in CSV file format for use in this study's statistical analysis. In cases where some of the data available from the BoR was available only in PDF format, that data was manually added to SPSS and Excel where needed in order to complete the full dataset for all institutions.

The second primary dataset was acquired from the Integrated Postsecondary Education Data System (IPEDS). IPEDS is a system of institutional surveys administered by the U.S. Department of Education containing data regarding tuition, enrollment, financial aid, degrees granted, and institutional resources (National Center for Education Statistics, 2015a). This data is available in various formats online at the IPEDS Data Center Website. For this study, the appropriate survey information was directly downloaded in CSV file format to be used for statistical analysis.

Variables in Study

Performance indicators contained within the language of the GRAD Act formed the quality assessment portion of this study. Because of the focus placed on graduation rate, retention rate, and number of completers (Louisiana Board of Regents, 2011a) in calculating the funding formula for each institution, these indicators form the core basis for evaluating the success of the GRAD Act in meeting its goals. Indicators of interest to this study contained in the GRAD Act policy and identified in one of the four major areas of student success, articulation and transfer, workforce and economic development, as well as institutional efficiency and accountability were examined. All variables analyzed and included in this study's results are part of the data set reported to the Board of Regents by the selected institutions.

Quantitative performance measures were examined for the change in their rates. How these changes compare in their actual values versus the target measures set forth in the GRAD Act requirements helped determine if their stated outcomes were met or unmet. While complete results of all indicators are presented in the data analysis, attention was given to measures that are commonly associated with student success outcomes. These measures include retention rates, graduation rates, and change in degree completers. A complete list of all variables

included in this study is shown in Table 6. In this study's analysis, an institution was considered "successful" in meeting the stated goals of the GRAD Act if these indicators meet their targeted levels.

Table 6

Independent and Dependent Variables Used in Study

Variables	Data Source	Variable Type	Description
Independent			
Carnegie Classification	IPEDS	Categorical	Carnegie Type
Louisiana Governing System	BoR	Categorical	LSU Southern ULS
Institutional Type	BoR	Categorical	Flagship HBCU four-year
Institutional Region	BoR	Categorical	1-8 (see Figure 3)
Institutional Enrollment	IPEDS	Categorical	<1,000 1,000–4,999 5,000–9,999 10,000-19,999 20,000 +
State Appropriations to Institutions	IPEDS	Discrete	$ Change
Revenues from Tuition and Fees per FTE	IPEDS	Discrete	$ Change
Revenues from State Appropriations per FTE	IPEDS	Discrete	$ Change
Undergraduate Students Receiving Pell Grants	IPEDS	Continuous	% Change
Dependent			
1st to 2nd Year Retention Rate	BoR	Continuous	% Change
1st to 3rd Year Retention Rate	BoR	Continuous	% Change
Same Institution Graduation Rate	BoR	Continuous	% Change
Graduation Productivity	BoR	Continuous	% Change
Award Productivity	BoR	Continuous	% Change
Statewide Graduation Rate	BoR	Continuous	% Change

Table 6 (continued)…

Variables	Data Source	Variable Type	Description
Baccalaureate Completers	BoR	Continuous	% Change
Post- Baccalaureate Completers	BoR	Continuous	% Change
Dependent			
Masters Completers	BoR	Continuous	% Change
Specialist Completers	BoR	Continuous	% Change
Doctoral Completers	BoR	Continuous	% Change
Professional Degree Completers	BoR	Continuous	% Change
Nursing (RN) License Exam Pass Rate	BoR	Continuous	% Change
Education License Exam Pass Rate	BoR	Continuous	% Change
1st to 2nd Year Retention Rate of Transfer Students	BoR	Continuous	% Change
Students Enrolled in Courses with 50% - 99% Distance Education	BoR	Continuous	# Change
Students Enrolled in Courses with 100% Distance Education	BoR	Continuous	# Change
Programs Offered through 100% Distance Education	BoR	Continuous	# Change
Intellectual Property Measures Resulting from Research Productivity & Technology Transfer Efforts	BoR	Continuous	# Change
Research & Development Expenditures per Research/Instructional Faculty	BoR	Discrete	$ Change
Faculty Holding Active Research and Development Grants/Contracts	BoR	Continuous	% Change
Eligible Programs that are Discipline Accredited	BoR	Continuous	% Change
Tuition and Mandatory Fees	BoR	Discrete	$ Change

Notes. This list represents the entire set of variables (independent and dependent) included in this study while identifying the source of the data, its type, and a brief description.

In this research study, in addition to the success measures and outcome indicators, financial factors such as revenue by source (state appropriation or tuition) and tuition and mandatory fees by cost were also analyzed. Emphasis was given to recognizing changes in revenue source and tuition cost prior to and after the implementation of the GRAD Act. This data is available from the Board of Regents and was requested in a standardized format. In addition to examining this data individually, the institutions were categorized by their Carnegie Classification, their associated management board, as well as by their institutional type to aid in identifying any trends.

Data Analysis Methods

SPSS for Mac version 23 was used to conduct all analysis of quantitative data in the study. Additional charts, tables, and graphs were constructed by analyzing data in Microsoft Excel. The datasets come from sources that can be trusted with a high degree of reliability. Long (2010) indicated that throughout the various studies of college spending, IPEDS data was often the most relied upon. However it was cautioned that it was often not granular enough to substitute for ongoing institutional gathering and analysis of data. Therefore, in this study, data for as many variables as possible came from the BoR. The appropriate descriptive statistics were included with specific data to support the findings. In order to perform proper analysis of the available data, corrections were first be made to the datasets. The appropriate corrections were made to measure, decimal place, and other variable information to ensure proper analysis and comparison.

Since the population for this study comprises the entire population identified, inferential statistics were not required to answer most of the research questions. This negated the need for probabilistic or nonprobabilistic sampling of the data. Actual observation from the complete

population served as the basis for analyses. For the research questions that explore the relationship between variables, the appropriate statistical inferences were made using accepted methods. The study's unit of analysis is the institution, not the individual, and therefore provides for manageable and natural organization to the results.

In order to answer the identified research questions, data collected from primary and secondary sources was exported into SPSS and Microsoft Excel for analysis. The variables identified in the study have been grouped into the four categories of student success, articulation & transfer, workforce & economic development, and institutional efficiency & accountability. These areas align with the common understanding of the goals of the Act and are examined most closely for meeting the requirements of the Act linked to funding. Ultimately, these grouped variables are used to measure the success and efficiency of an institution. It is by linking outcomes to funding by measuring predetermined goals that this sort of performance funding is used as an accountability measure.

This study is designed primarily for answering the research questions below using available data. It is the position of this researcher that the quantitative results to these questions can provide additional insight into the results of the GRAD Act. Providing the findings of this research can thereby aid policy makers for future decisions involving state higher education funding. In this work, the research questions are presented first, accompanied by brief additional context and explanation. Following their overview, the statistical analysis methods utilized in this study are presented in the context of answering the stated research questions.

Research Question 1

What have been the changes over time to the selected performance indicators in the LA GRAD Act in the reporting years preceding the implementation of the Act to the first 5 years following the implementation of the Act? This question sought to examine the percentage change in the reported performance measure indicators in the time period indicated. While data has been reported to the state in accordance with the requirements of the GRAD Act, examination of the data over time, both before and after its implementation, provides evidence of changes in trends. These changes over time will also serve to indicate the success of individual institutions in meeting the required outcome measures of the Act. The result of this question provides data with which to interpret and describe the stated goals of the act versus the actual results measured.

Descriptive statistics were helpful in answering Research Question 1. The data was examined for changes over time. In describing the results of the reported data it will aid in summarizing trends and tendencies, as well as provide insight into how one score compares to another (Bartz, 1976; Creswell, 2012; Hinkle, Wiersma, & Jurs, 1979). Data collected for the study focuses on the time period from the 2006-2007 state fiscal year to the 2014-2015 state fiscal year, but provides additional data points from previous years where available and applicable. Previous data periods were included if available for analysis from either the Board of Regents or the Integrated Postsecondary Education Data System.

Charting the reported indicators graphically illustrates the changes observed at each institution in a given year. Appropriate tables and charts were produced for both each institution individually and all institutions in the study collectively containing the variables indicated in Table 6. The charted variables over time for all institutions in the study population can be found

in Appendix C. The appropriate descriptive statistics aided in summarizing results for Research Question 1, as well as most others in the study. However, since changes over time are important to the design of this study, Within-Subjects ANOVA was more appropriate in exploring the differences in the means of these subjects. According to Tabachnick and Fidell (2001) Within-Subjects ANOVA, also called Repeated Measures ANOVA, are utilized when the means that are tested are derived from the same subjects measured on different occasions.

Research Question 2

How do the selected performance indicators differ between the three Louisiana higher education governing systems studied? As indicated in Table 2, which appears in Chapter II, all 14 institutions included in the study are administered via three different management boards. Specifically the differing management boards are: the Louisiana State System, the Southern System, and the University of Louisiana System. In examining the reported data, this question sought to explore the differences based on this categorization of the institutions. The results illustrate areas of potential interest for policy makers in indicating any variety of outcomes throughout the various systems.

To answer Research Question 2 an analysis of variance (ANOVA) was used to explore the differences based on the three Louisiana higher education governing systems of the institutions studied. "Analysis of variance is used to compare two or more means to see if there are any reliable differences among them" (Tabachnick & Fidell, 2001, p. 35). ANOVA is among the most widely used statistical processes in behavioral science research (Hinkle et al., 1979). In understanding if there is an interaction between the two independent variables (group or category, and time) on the dependent variable (student success measure) a mixed ANOVA is used. To complete the exploration of the differences in the institutions studied over time,

descriptive statistics reporting the mean scores, frequency, percentage statistics, and distribution at the appropriate time periods was also calculated to further answer Research Question 2.

Research Question 3

How do the selected performance indicators differ based on the Carnegie Classification of the individual institutions studied? Table 2, seen in Chapter II, also shows the Carnegie Classifications of the institutions included in the study. This study identifies institutions utilizing their 2010 Carnegie Basic Classifications. The population of the study includes institutions from five of Carnegie's Classification categories. Specifically they are baccalaureate colleges—arts & sciences, master's colleges and universities (medium programs), master's colleges and universities (larger programs), research universities (high research activity), and research universities (very high research activity). Additional insight of reported data was gained by exploring the differences based on the categorizations of the institutions. Knowing if there is disparity in how different institutional types respond to the policy, as implemented, will allow policy makers to determine if it is the best fit for achieving desired outcomes at each institution in the study group.

To answer Research Question 3, an analysis of variance (ANOVA) was used to explore the differences based on Carnegie Classification of the institutions studied. "Analysis of variance is used to compare two or more means to see if there are any reliable differences among them" (Tabachnick & Fidell, 2001, p. 35). ANOVA is among the most widely used statistical processes in behavioral science research (Hinkle et al., 1979). In understanding if there is an interaction between the two independent variables (group or category, and time) on the dependent variable (student success measure) a mixed ANOVA is used. To complete the exploration of the differences in the institutions studied over time, descriptive statistics reporting

the mean scores, frequency, percentage statistics, and distribution at the appropriate time periods was also calculated to further answer Research Question 3.

Research Question 4

How do the selected performance indicators differ between the institutions studied based upon region, enrollment, and institutional type? As indicated in Table 3, also shown in Chapter II, the institutions included in the study are distributed among 8 different regions of the state. In addition, the enrollment sizes of the institutions vary significantly. Finally, although all institutions in the study are four-year public comprehensive, some are recognized as HBCUs, and one is the state flagship. In examining the reported data, this question sought to explore the differences based on these institutional traits. The results illustrate areas of potential interest for policy makers in indicating any variety of outcomes throughout the various systems.

To answer Research Question 4, an analysis of variance (ANOVA) was used to explore the differences based on region, enrollment, and institutional type of the institutions studied. "Analysis of variance is used to compare two or more means to see if there are any reliable differences among them" (Tabachnick & Fidell, 2001, p. 35). ANOVA is among the most widely used statistical processes in behavioral science research (Hinkle et al., 1979). In understanding if there is an interaction between the two independent variables (group or category, and time) on the dependent variable (student success measure) a mixed ANOVA is used. To complete the exploration of the differences in the institutions studied over time, descriptive statistics reporting the mean scores, frequency, percentage statistics, and distribution at the appropriate time periods was also calculated to further answer Research Question 4.

Research Question 5

What changes to state funding levels have institutions experienced since the implementation of the GRAD Act? This question sought to examine the change in funding to the institutions of the study over time. State fiscal shortfalls have resulted in funding reductions to Louisiana higher education. Results to this inquiry illustrate funding fluctuations and trends. Answering this questions aided in identifying if change in funding allocation coincided with the implementation of the GRAD Act. By exploring the changes in funding amounts after the GRAD Act and comparing those to funding allocations prior to the Act, trends and changes were be identified. As indicated previously, 15 % of the state funds managed by the Board of Regents was determined by institutional outcomes as agreed upon per the GRAD Act. However, as economic, political, and practical fiscal concerns have changed the state budget dramatically, measuring the actual state allocation for funding the study population provides for additional context of the study. Additionally, institutions failing to meet their required targets according to the policy implemented faced the loss of funding and the attention state officials.

Research Question 5 also relied on reporting from descriptive statistics in a similar manner to Research Question 1. Using such statistical descriptions allows for precise quantitative statements regarding the data (Bartz, 1976). However, using graphs and charts to visually indicate this data is also useful in identifying patterns, trends, and changes in the statistical analysis (Witte & Witte, 2010). Line and bar graphs were appropriate for much of the data in answering the question and charting the changes over time. Total state appropriations over time were illustrative of major trends in state fiscal support to the institutions across the study.

Research Question 6

What is the relationship, if any, between funding and performance indicators? This question sought to determine if there is a relationship between funding and the performance indicators that are required in the GRAD Act. As the literature review revealed, most accountability systems are constructed with the notion that funding somehow relates to the outcomes of higher education. This question is designed to explore that specific concept and determine what, if any, relationship exists in the case of Louisiana performance funding. Exploring this relationship provides evidence for or against performance funding as either a valid or an invalid option for higher education funding in the study population. To examine this relationship the change in funding in the 4 years preceding the implementation of the Act to the first 4 years following the implementation of the Act was explored in relation to retention rates, graduation rates, and change in degree completers.

To answer Research Question 6, correlation testing was conducted to determine the relationship between the variables of interest to this study. Correlation testing is appropriate here as the researcher is interested in the association between the two variables. "Correlation is the measure of the size and direction of the linear relationship between the two variables, and squared correlation is the strength of the association between them" (Tabachnick & Fidell, 2001, p. 53). A Pearson product-moment correlation, *r*, was used in investigation for this study. Ultimately, analyzing the appropriate data for Research Question 6 sought to test the commonly held assertion that "underlying any accountability system, though, is the assumption that money is somehow related to postsecondary results" (Long, 2010, p. 147). With this in mind the relationship in the change between state funding and institutional retention rates, graduation rates, and change in degree completers was examined over the same time period.

Research Question 7

How have institutional tuition rates changed since the implementation of the GRAD Act? As part of the incentive for meeting the benchmarks of the GRAD Act the institutions in the state were allowed the possibility of increasing tuition by 10 % each year. This continued for each year that an institution met the goals. Although this tuition authority was granted, it was not required that the institution implement it or, if implemented, that the full allowable 10% be used. The results of this question determined if institutions did in fact increase tuition when allowed to do so, and, if so, by how much. An examination of the tuition costs at each institution also provides significant insight into the effects that the policy has had on tuition.

Like previous research questions, bar or line graphs, coupled with descriptive statistics, will provide extensive exploration of the data in answering Research Question 7. Research Question 7 also relied on reporting from descriptive statistics in a similar manner to Research Questions 1 and 5. Mean tuition cost across the population, as well as a more detailed look at individual tuition change will illustrate trends over time. Levels of state appropriations and revenue from tuition and fees will also be charted to note change over time across the study population.

Security of Data and Ethical Use

This study provides for few security or ethical concerns regarding the proposed data collection methods and use. Approval from the Institutional Review Board at the University of Alabama will be sought before engaging in research activity and data collection. Data collection from the primary source will consist of requesting and downloading previously collected data from the Louisiana Board of Regents, and the IPEDS database. Document analysis of publicly available reports, press releases, and legislative activity will also contribute to the data collection

process. The data to be collected and analyzed contains no individual personally identifiable information and contains only aggregate student data at the institutional, system, and state level. No individual information will be utilized that could identify any particular person counted or referenced in aggregate data in this study.

Once data has been downloaded from the sources identified for this study, it will be stored in a password protected USB thumb drive folder secured using 256-bit AES encryption. Security authentication uses a two-step verification process for an additional layer of protection. This USB drive will be keep in a locked desk drawer in a locked office. No data will be maintained, shared or stored on unsecured servers or computers. No files will be accessible through shared or networked drives accessible to others. Backups of data are kept on a password protected Apple TimeMachine using an AES-128 encryption algorithm to secure the drive. The physical hard drive is located in a locked office for security.

Limitations

Aside from the normal limitations of a quantitative study, there were a number of limits to this study. The choice of methodology was completed during initial review of possible data points. Although adjustments were made after data collection occurred, statistical testing was determined by the knowledge of the researcher and the choice of SPSS as the software used for analysis. More robust statistical testing with a more advanced methodology and choice of software for analysis would likely provide more accurate and comprehensive results. Additionally, the population of this study did not include specialized, technical, or community colleges for analysis. Although the study population was inclusive of all four-year, non-specialized public institutions in the state, the remaining higher education institutions statewide were not examined. Several challenges were presented with cases missing data points due to

Hurricane Katrina. These were compounded by the fact that reporting from two institutions was inconsistent in 2005 and 2006 due to the hurricane's impacts. It was also discovered in the course of data collection that continuous updates and corrections had been made to institutional data reporting for the GRAD Act over the five years of its existence. By Year 5, variable data for Years 1 – 4 were inconsistent in a variety of reports due to the changes. Year 5 reporting results were therefore relied upon as the most up-to-date and verified GRAD Act reporting metrics.

Methodology Summary

This study began in January 2016 with the collection of population data. Background research and initial investigation on basic variables had begun the previous year. The institutions in the study population are inclusive of all four-year public, non-specialized colleges and universities of higher education in Louisiana. Quantitative data was requested from the Louisiana Board of Regents and the Integrated Postsecondary Education Data System. Data from IPEDS was downloaded electronically from their website in Comma Separated Values format for all available years. Data from the BoR was received electronically from their website in Excel, Comma Separated Values, and PDF formats. Located in the Claiborne building in the Louisiana state Capitol complex, the Board of Regents also provided additional data and contextual information in printed format. These documents were received in person after making a formal request for the public data. All data and documents were collected after receiving IRB exemption. No individual human beings were subjects for this study. Data collected is at the institution level for the specified variables. All information was collected in aggregate format with no personally recognizable information.

Data collection was intended to locate and identify a common set of variables used by all institutions in the study and contained within the GRAD Act reporting structure. Some data was therefore collected twice from the different sources. Final datasets were received from the BoR in February 2016. Data utilization preference was given to data collected from the BoR if duplicate data was received from another source. Defining timeframe was problematic in assessing GRAD Act reports as some reported figures utilized calculations or benchmarks from years prior to the beginning of the Act. For clarity, and consistency with BoR reports, data received from GRAD Act reports were reference by reporting year (Year 1) rather than calendar year (2011). Statistical analysis was then conducted on variables that shared the same timeframe, definition, and were reported at all institutions of the study.

GRAD Act Data Elements

Upon examination of the yearly annual reports submitted to the Louisiana Board of Regents (see Appendix B), several factors were observed that would influence the analysis for this study. In Year 1, institutions operating under the GRAD Act agreements were required to report about, and meet, criteria for a core set of measures centered on student success. These measures were chosen in a process guided by the Board of Regents along with representatives of each system, and the involved institutions. Meetings were held in which the agenda involved the development and refinement of the definitions/reporting measures, and the consideration of actual historical data. During the course of several months, and after numerous meetings, institutions negotiated their baselines, benchmarks, and six-year targets with the BoR. The focus for these measures was improvement from the baseline. These agreed upon baselines will also be utilized in this study to gauge change. An initial benchmark was set for each measure guided by the baseline data. Each year thereafter a slightly higher target exceeding the previous years

number was set for each measure. Meeting annual benchmarks and six-year targets ensures an institution receives the full advantages of the GRAD Act agreement.

Data reporting began in 2010 with the first reports being presented in mid-2011 using data from the previous few years. Data for the Years 1-5 are provided in the annual GRAD Act Report from each institution. Year 6 targets have been set by the BoR, but not yet reported (see Appendix B). In addition to statistical data, extensive narrative reports detailing institutional level accomplishments and issues are also provided as part of the GRAD Act annual reports (Louisiana Board of Regents, 2015b). The qualitative reports provide context to the quantitative aspects of the performance indicators. The narrative reports also explain progress on other requirements such as developing partnerships with high schools and community colleges, eliminating low completer or misaligned programs of study, increasing the use of technology, and reducing remedial education. These yearly narratives are important to understanding the phenomena completely. The same is true of the origins of, and the negotiations leading to, the establishment of the baselines, benchmarks, targets, and measures. Both lines of inquiry however, are outside of the scope of this study.

After Year 2 of the GRAD Act, institutions were required to add additional measures to their reporting and criteria as per their agreements with the Board of Regents. The BoR again held meetings with various higher education representatives to develop a list of targeted measures from which institutions could add to their reporting and accountability efforts. Some of the measures on the list were previously tracked measures that were converted to targeted measures. Others were optional measures from the original list that an institution could now select if they had not initially done so. A few new measures were also added to the list. The agreements required that every institution add a minimum of one new, targeted measure to each

of the four performance objectives of student success, articulation and transfer, workforce and economic development, and institutional efficiency and accountability.

Although more than 50 objectives, elements, and measures were generally described as being part of the way in which the Act was to be used to track the success of an institution, in reality many of these were intended to be qualitative in their reporting, or optional in nature even if quantitative in substance. The population of this study is presented here with most of the 23 various quantitative measures in the Annual GRAD Act Report Attachment D (see Appendix B). As the GRAD Act was implemented, each institution reported a half dozen targeted measures in the first two years, most centering on Student Success outcomes such as retention rates, award productivity, same institution graduation rates, and change in program completers. In year two additional measures were added for all institutions in areas such as articulation and transfer, workforce and economic development, and institutional efficiency and accountability in addition to additional measures in the student success areas (see Table 6). However, many of these outcomes were not part of a common data set reported for every institution. The institutions in this study population reported on only six common targeted measures between them.

Of the original student success measures only 1st to 2nd year retention rate, 1st to 3rd year retention rate, same institution graduation rate, and change in baccalaureate completers were common to all institutions in the study. Some target measures that were not commonly reported by all institutions were due to intrinsic differences in the institutional capabilities or offerings. For example, some institutions did not report masters or doctoral changes in completers, as those institutions do not award degrees of that level. Other measures are less obvious in their reasoning for being included or excluded from an individual institution's annual reports. Of the targeted measures added after the second year, only 1st to 2nd year retention rate of transfer

students, and eligible programs that are discipline accredited were the measures common to all the institutions in the study. The Year 5 GRAD Act reporting instruments – a table of all data reported by each institution to the Board of Regents - for each institution in the study can be found in Appendix B.

This study seeks to identify and understand change in a common set of selected metrics in the four-year public, non-specialized institutions of higher education in Louisiana. By examining common metrics shared by the 14 institutions, peer comparisons can be made. Although GRAD Act Reports represent a reliable and verified source of this data, it is limited to the five years of the required reporting in the institutional agreements. For comparison, similar metrics from the Board of Regents Statewide Student Profile System (SSPS), the Louisiana Higher Education Fact Book, available Board of Regents reports, and IPEDS were examined for the available data years prior to the GRAD Act through 2014.

The Louisiana Board of Regents has reportable data that has been tracking 1st to 2nd year retention rates in the study population since the Fall 1994-1995 FTF Cohort. This data is part of the Statewide Student Profile System (SSPS) utilized by the state. In this data, students registered at multiple institutions are counted at each institution enrolled. Data are missing in the 2005 and 2006 reporting years for Southern University at New Orleans and the University of New Orleans. Both institutions were given a special exemption for these reporting years due to the impact of Hurricane Katrina. Data is available from the SSPS from 1995-2014 for some variables in the study, but not others. Only publicly available, "on the shelf" reports and data sets were utilized in statistical analysis for answering all Research Questions in this study.

Based upon the initial goals of this study, to examine changes in the study population over time, before and after the implementation of the GRAD Act, a common set of measures was

required to do so effectively. This is supported by literature presented in Chapter II. The works of McKeown-Moak (2013) and Powell et al. (2012) indicated that states have a need for consistency and commonality in the reporting of benchmark data. Aldeman and Carey (2009), Burke and Minassians (2001), Carey and Schneider (2010), and Rabovsky (2012) found that with using common measures, institutions could then be compared on an as-similar basis with more analogous outcomes. As already noted in the reporting of the GRAD Act data, only four performance indicators were reported by all members of the study population. With this in mind, the following measures served as the "selected performance indicators" referenced in answering Research Questions 1, 2, 3, and 4 of this study: 1st to 2nd year retention rate; 1st to 3rd year retention rate; same institution graduation rate; and change in baccalaureate completers.

These performance indicators most closely align with the main funding component of the GRAD Act measurements as indicated in Chapter II. In the second year of the GRAD Act, the Louisiana Board of Regents clarified the funding formula component saying, "state general funds will be awarded based upon an institution's performance on the student success measures outlined in the GRAD Act" (Louisiana Board of Regents, 2011a). The BoR specifically cited "graduation rate, retention rate, and number of completers" as important measures of focus for institutions when meeting their targeted outcomes.

Summary

Chapter III indicated the methodology, data sources, variables, and analysis to be used in completing this study. The chapter also presented the limitations to the study as well as how the reporting of GRAD Act metrics influenced the outcomes of the analysis. The primary objective in conducting this study is to identify changes in selected performance indicators and to state fiscal support at each of the included institutions. Site descriptions of the institutions in the study

population were included for context. This context provides for additional insight as an exploration of differences in institution by system, type, and selected traits are also gleaned from the reported data. Additionally, the purpose and intent of the study was explained, as well as a description of how the data was obtained, securely stored, and also the software that was used in data analysis. Results of the study can inform policy makers of the impacts of funding change and if the stated goals of the GRAD Act have been achieved as intended. Policy makers may be better able to make future decisions regarding the structure and amount of funding for higher education in the state of Louisiana by utilizing the results of the study. The goal of the current study was therefore to provide quantitative empirical data regarding the outcomes of performance funding at the identified institutions in the state of Louisiana. Analysis of this data will add the needed critical scholarly work to the established literature, which will address the phenomenon in performance funding outcomes at public four-year or more, comprehensive, non-specialized institutions in Louisiana following the implementation of the LA GRAD Act in 2010.

CHAPTER IV:

RESULTS AND ANALYSIS OF THE DATA

This chapter presents the results of the dissertation's study component as described in Chapter III. Gaining both "an understanding of the results of the implementation of the GRAD Act," and examining "quantitatively its impact on the public, four-year master's and research institutions of higher education in the state of Louisiana," were presented in Chapter I as a driving purpose for the study. This understanding is arrived at through the answers to the seven Research Questions queried as the basis for this study's exploration of the phenomena. The purpose of this chapter is to provide quantitative responses to the Research Questions. The chapter will first provide an extensive quantitative analysis of the GRAD Act to date. Examining the results of measures common to all institutions in the study will also allow for comparisons to peer institutions (see Appendix C). Results of differing outcomes by system, Carnegie classification, institution type, region, and enrollment size will also be presented. Where available, comparable data from years prior to the GRAD Act are analyzed for changes in the same outcomes as required in the Act. An analysis of state fiscal allocations, tuition costs, and relationships to student success will complete the reporting of results.

Performance on GRAD Act Indicators Over Time

Annual GRAD Act reports indicate that the entire population of the study has met all student success, articulation and transfer, workforce and economic development, and institutional efficiency and accountability objectives since the implementation of the Act with the exception of one institution, in one reporting year. Each of the four performance objective areas

- student success, articulation and transfer, workforce and economic development, and institutional efficiency and accountability – was graded for all institutions in the study. Passage of a performance objective requires a minimum overall score of 80%. Institutions must pass the Student Success objective in order to pass GRAD Act, as detailed in Chapter II, see Table 1. This means an individual institution is actually being measured against its own baseline data year-to-year rather than competing against another institution in performance. Successfully meeting the benchmarks for individual measures such as retention, graduation, and change in completers added to overall scoring.

All institutions in the study population reported a 100% passage rate each year in meeting the performance objectives for articulation and transfer, workforce and economic development, and institutional efficiency and accountability, the specific variables of which are listed in Chapter II, Tables 1 and 2. This means all institutions in the population met all benchmarks in these areas. The only area results varied was in the passage rate of the Student Success objective. Institutions did generally pass with a positive margin above 80% for each institution. In the fourth year of the GRAD Act, Southern University and A&M College reported a rate of 74% in the Student Success objective. Poor performance on student success metrics such as retention rates, graduation rates, and productivity in Year 4 led Southern University to be the only institution in the study population to fail to meet the GRAD Act requirements at any point in the study period. It is because of this fluctuation in Student Success objectives population-wide that the study seeks additional analysis on these measures in answering the Research Questions.

In answering Research Question 1, 1st to 2nd Year Retention Rate, 1st to 3rd Year Retention Rate, Same Institution Graduation Rate, Statewide Graduation Rate, Graduation

Productivity (ratio of actual completers) and Award Productivity (ratio of actual awards) were graphed for each institution in the study. The line graph results for the 14 institutions of the study, plotted by percent change over time, are found in Appendix C. Data is included from GRAD Act Years 1-5. These represent the core Student Success measures used in meeting this objective of the GRAD Act. Data was used from both the GRAD Act reports as well as data sources that predate the implementation of the Act.

Once charted to a line graph (see Figure 4) the population means of all GRAD Act Student Success indicators show a slight upward trend. Figure 4 shows the population means across all institutions in the study of the measures that comprise the Student Success objective of the GRAD Act over Years 1-5. Changes are indicated by their change from baseline (Louisiana Board of Regents, 2015b, pp. 8-16). Although the GRAD Act has reporting for five years, some of the reporting measures only began in Year 3. The reporting for Graduation Productivity only shows data for Years 3-5. This is because it was one of the measures added by Grambling State University and the University of Louisiana at Monroe after Year 2, when all institutions were required to add additional measures to their individual reports.

All of the mean Student Success measures that were reported showed overall slight to moderate gains during the study time period. The change in Doctoral Completers was the only outlier that indicated much larger changes year-to-year than the other population means. The rate grew suddenly from 18.7% (M = .18713, SD = .612291) in Year 1, to a significantly higher level of 86.9% in Year 3. By Year 5 it had settled to a 50.7% (M = .50763, SD + .898174). Two institutions, Southeastern Louisiana University and the University of Louisiana Monroe, drove these large swings in the population mean rate. While other institutions indicated moderate gains or losses in their change rate, these two institutions significantly increased their output of

doctoral completers after Year 3. These increases however were dwarfed by the overall increase in completers by Louisiana State University who accounted for more than half of all completers in any given year.

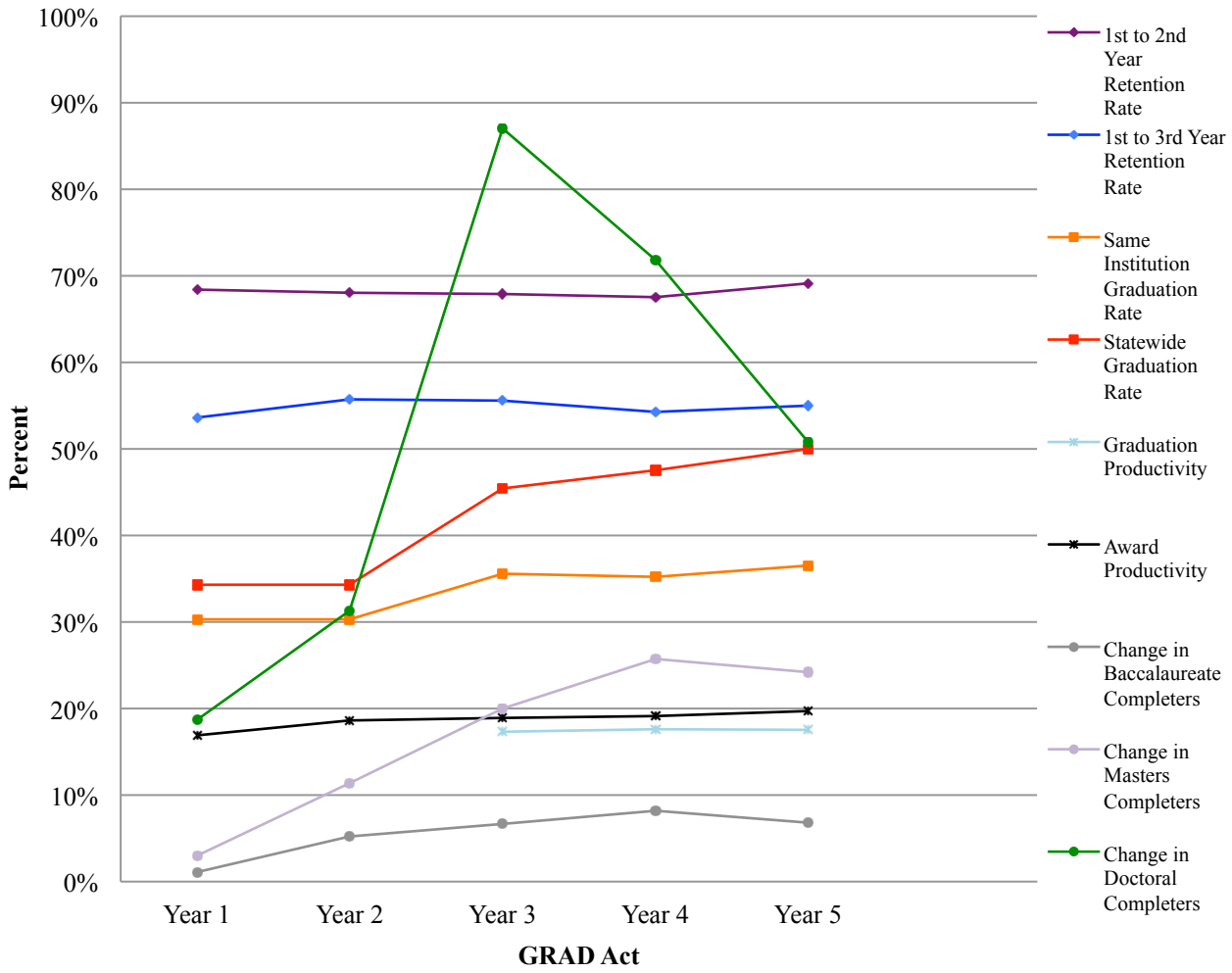


Figure 4. Study Population Means of Student Success Measures.

For comparison, previous data from the Statewide Student Profile system, the Higher Education State Fact Book, and other Board of Regents reports were examined and graphed (see Figure 5). Overall the means of each variable show a general upward trend in the time period reported. Southern University and A&M College and the University of New Orleans have gaps in some data in the 2005 and 2006 reporting years due to Hurricane Katrina, as they did with

other metrics. 1st to 2nd year retention rate, same institution graduation rate, and statewide graduation rate showed positive mean gains over the reported periods for the population. Graduation Productivity and Award Productivity showed a slight decrease after several years of percentage increases. These results closely resembled those described in the GRAD Act Reports.

As previously indicated, a more extensive exploration of the indicators common to all institutions and reported in the GRAD Act was conducted to aid in understanding the phenomena and answering Research Question 1. To do so, separate one-way repeated measures ANOVA were conducted on the variables of 1st to 2nd Year Retention Rate, 1st to 3rd Year Retention Rate, Same Institution Graduation Rate, and Change in Baccalaureate Completers. Repeated measures ANOVA are utilized when the means that are tested are derived from the same subjects measured on different occasions (Tabachnick & Fidell, 2001). The GRAD Act has five such levels available for analysis due to its reporting requirements.

1st Year to 2nd Year Retention

As seen in Figure 5, an examination of the population mean indicates that the 1st to 2nd year retention rate has stayed relatively constant for many years in the low to mid 60% area, with slight increases over time. By 2010 the mean rate had increased to 68.2% (M = .68271, SD = .080867). The following years showed decreasing rates until it rebounded in the final year of reporting with the last 1st to 2nd year mean retention rate of the population to be 70.1% in 2014. Over the last 15 years, Louisiana State University consistently reported a rate in the 80% range, while Louisiana Tech University reported results in the 70% area. While most institutions in the population had generally positive increases overall, Louisiana State University at Alexandria and

Southeastern Louisiana University have noticeable periods in which the rate reported by each institution decreases considerably year-to-year.

A one-way repeated measures ANOVA was conducted to determine whether there was a statistically significant difference in 1st to 2nd year retention rates in the study population over the course of the five years since the passage of the GRAD Act. Data was sourced from the Year-5 Annual GRAD Act Report for each institution in Appendix B. Outliers indicated by boxplot were identified as unique data points. Although statistically inconvenient, they were included as genuine data as the researcher believes results will not be materially affected. These outliers were not ignored or transformed, as their data points are true measures. They are therefore acknowledged here and appropriately incorporated with the analysis. Normality was indicated at all time points assessed by a Shapiro-Wilk's test ($p>.05$), an appropriate test for the normality of complete samples (Shapiro & Wilk, 1965). 1st to 2nd year retention rates decreased each year from 68.3% in Year 1 (M = .68357, SD = .082330) until the mean reached 67.5% in Year 4 (M = .67507, SD = .087033). The rate increased significantly the next year to 69.1%, resulting in the Year 5 (M = .69107, SD = .075688) measure exceeding Year 1 results. Mauchly's test of sphericity, an often statistical test to validate a repeated measures analysis of variance, was used to test sphericity (Mauchly, 1940). The test indicated that the assumption of sphericity had not been violated, $\chi^2(2) = 10.320$, $p = .330$, as it is. The implementation of the GRAD Act did not lead to any statistically significant changes in 1st to 2nd year retention rate over the time period analyzed, $F(4, 52) = .847$, $p = .502$.

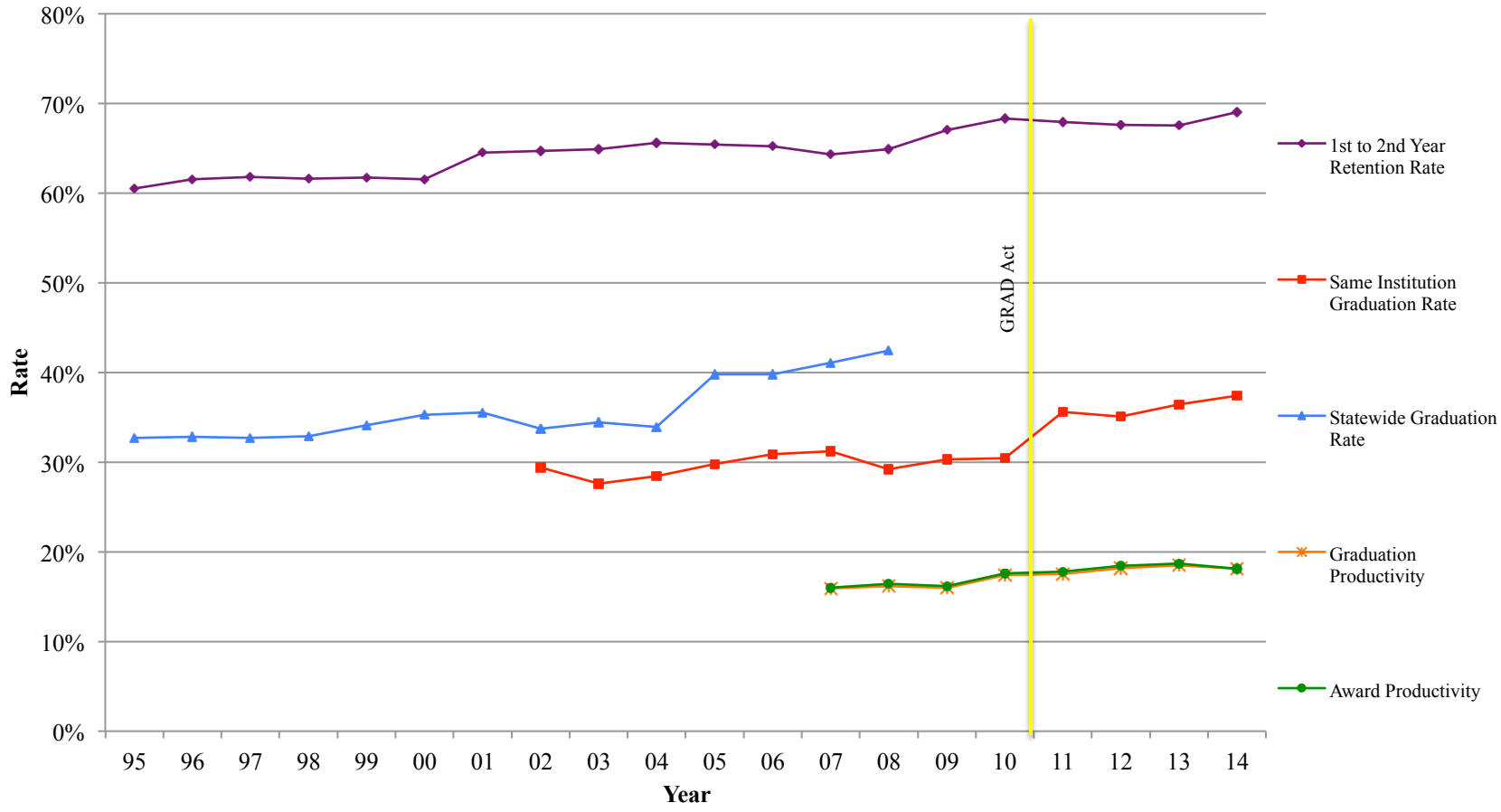


Figure 5. Mean Student Success Measures Across All Institutions in Study. Source: Louisiana Board of Regents (2015d), Statewide Student Profile System (2015).

1st Year to 3rd Year Retention

In Figure 5, the population mean indicates that the 1st to 3rd Year Retention Rates metric has roughly mirrored 1st to 2nd Year Retention Rates, but at a rate approximately 10-15% lower. Year 2 was the highest population mean reported with 55.6% (M = .55657, SD = .091422). The majority of individual institutions saw a slight gain in their rate during the study period, while a few saw overall loses. In Year 5, three of the institutions in the study reported 1st to 3rd year retention rates that were lower than those they reported in Year 1 of the GRAD Act, even after most made some positive gains during the reporting period.

To determine if there was a statistically significant difference in 1st to 3rd year retention rates in the study population, a one-way repeated measures ANOVA was conducted for the time period of the GRAD Act Years 1-5. Several outliers and two extreme outliers were indicated by boxplot. These were investigated as true data points and retained in the analysis, as the researcher does not believe results will be materially affected. A Shapiro-Wilk's test assessed normality at all time points (p>.05). To test for sphericity, Mauchly's test was used and indicated that the assumption of sphericity had been met, $\chi^2(2) = 6.377$, $p = .705$. Reported data indicates that the means are equal in the population, therefore 1st to 3rd year retention rate was not statistically significantly different at the different time points examined after the start of the Act, F(4, 52) = .1.676, p = .170.

Same Institution Graduation Rate

In answering Research Question 1, same institution graduation rate is a Student Success objective that emerged as a common metric used in the GRAD Act reporting by all institutions in the study. In fact, the GRAD Act's own reporting standards require the "same institution graduation rate from the most recently published Integrated Postsecondary Education Data

System (IPEDS), as defined and reported in the National Center of Education Statistics (NCES) Graduation Rate Survey (GRS) for four-year universities and two-year colleges," (Louisiana Board of Regents, 2015b). GRAD Act data for Years 1-5 Same Institution Graduation Rate was obtained from the BoR via PDF-based reports rather than IPEDS download to ensure accuracy with overall GRAD Act reporting and timeframe (see Figure 5). The graphed rates of individual institutions are shown in Appendix C.

The same institution graduation rate was analyzed with one-way repeated measures ANOVA to indicate if there are statistically significant mean differences between the levels of the within-subjects factor. Southern University at New Orleans did not report at rate for Year 3 and was exempt from BoR reporting for that time period. Other outliers were identified by boxplot and determined to be true data points. They were retained in the analysis even though they may be statistically inconvenient, as the researcher does not believe the results will be materially affected. These outliers were not ignored or transformed, as their data points are true measures. They are therefore acknowledged here and appropriately incorporated with the analysis. In testing for normality, a Shapiro-Wilk's test was conducted and identified normality at all time periods examined ($p > .05$). The rate increased each year examined from 31.9% (M = 31969, SD = .124656) in Year 1 to 38.4% (M = 38431, SD = .124814) in Year 5. Mauchly's test of sphericity indicated that the assumption of sphericity had been violated, $\chi^2(2) = 32.315$, $p = .0005$. Epsilon (ε) was 0.471, as calculated according to Greenhouse-Geisser, and was used to correct the one-way repeated measures ANOVA. In SPSS, the Greenhouse-Geisser (1959) is one possible correction used to alter the degrees of freedom and produce an F-ratio where the Type I error rate is reduced. The same institution graduation rate was statistically significantly

different at the different time points after the implementation of the Act, $F(1.885, 22.622) = 13.319$, $p < .0005$.

Change in Baccalaureate Completers

All institutions in the study offer a bachelor's degree. Thirteen of the 14 offer a master's, and eight offer some form of doctoral degree. Increasing degree completers on all levels is an important part of the GRAD Act goals. Recent data on yearly total population completers for baccalaureate, masters and doctoral programs can be seen in Figures 6, 7, and 8. The number of bachelors and masters completers has increased over time, but saw some slowing in the most recent reporting years. Total doctoral degrees granted have also increased over time, with Louisiana State University driving most of the count each year.

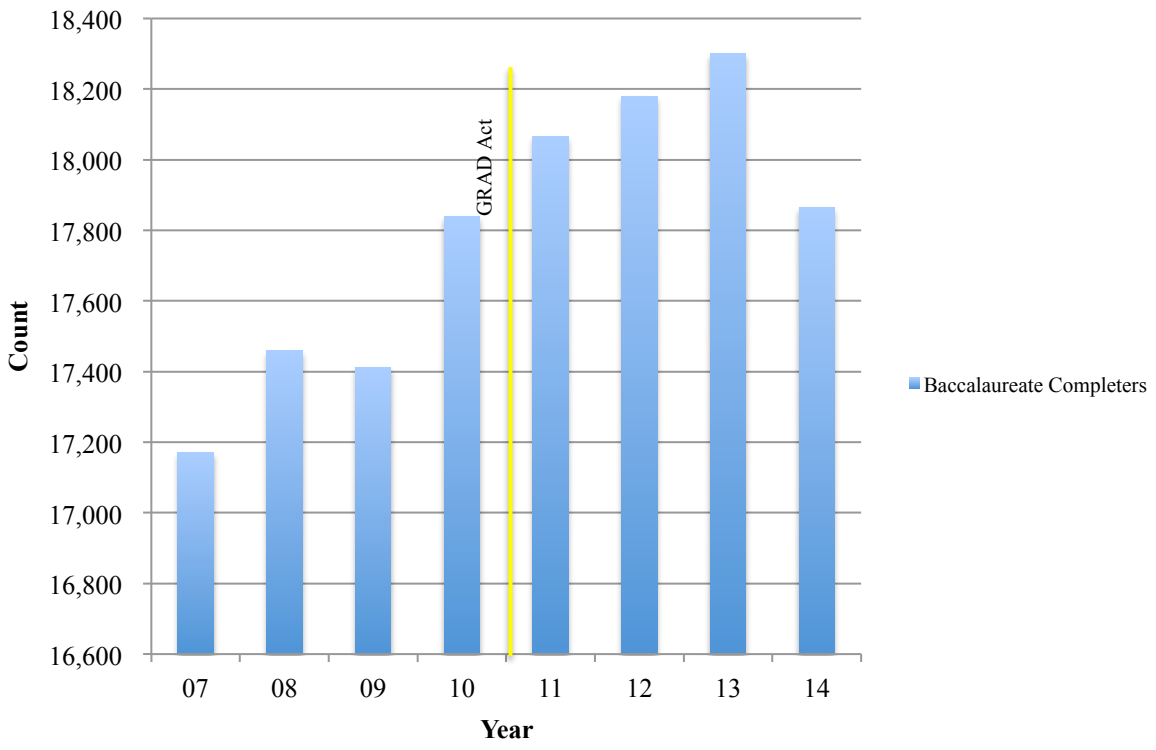


Figure 6. Total Baccalaureate Completers Across Study Population. (Louisiana Board of Regents, 2015d)

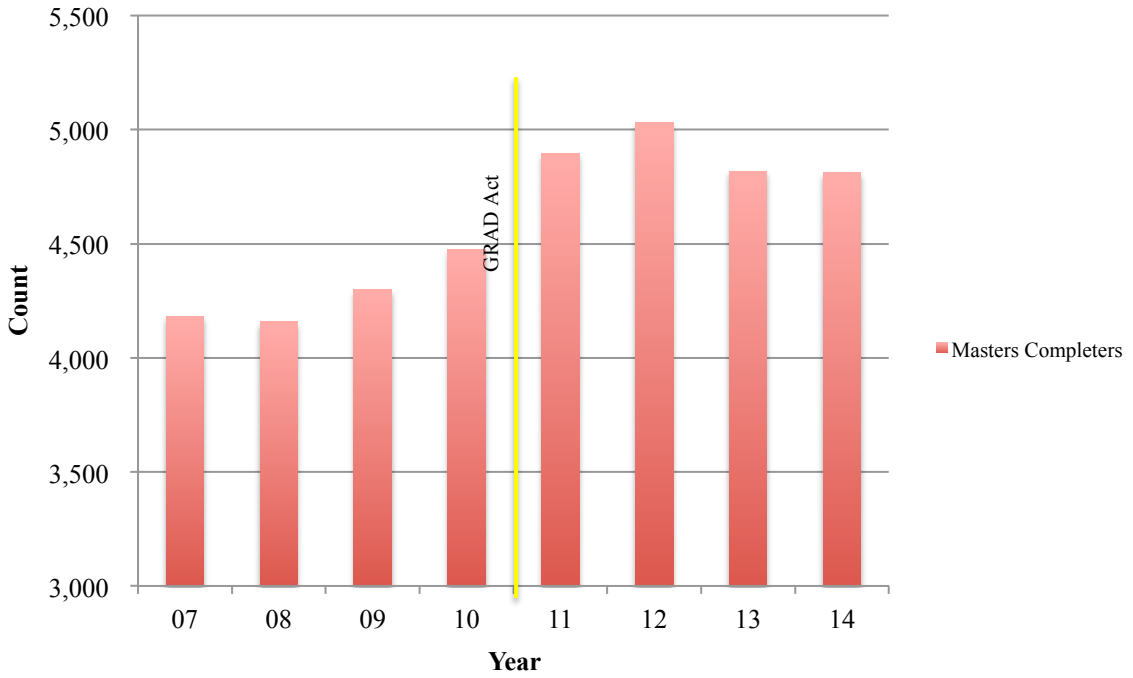


Figure 7. Total Master's Completers Across Study Population. (Louisiana Board of Regents, 2015d).

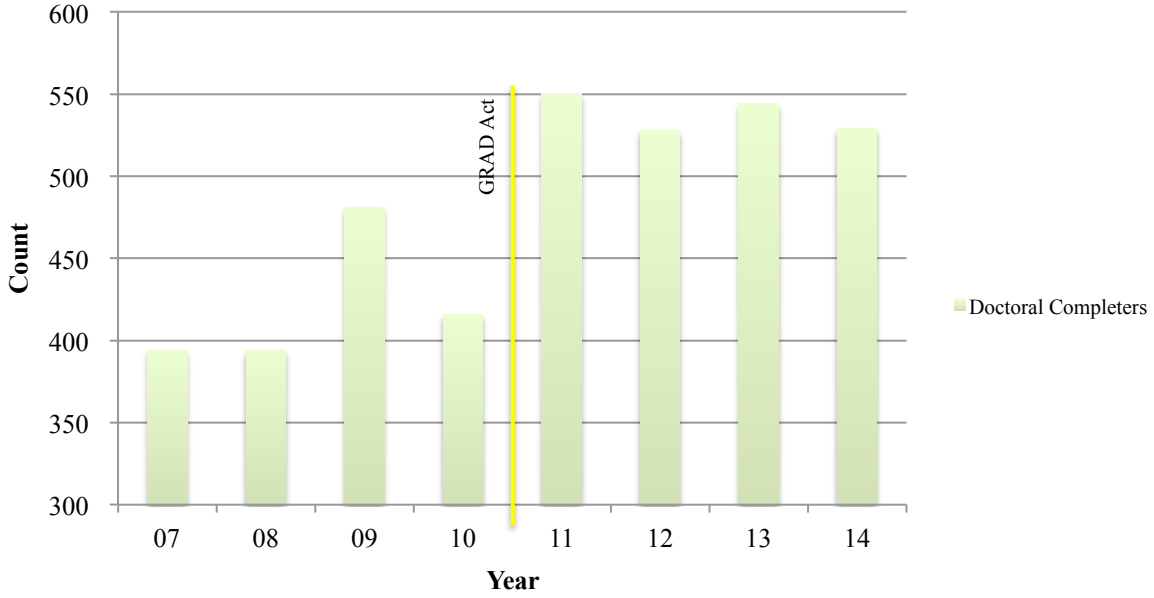


Figure 8. Total Doctoral Completers Across Study Population. (Louisiana Board of Regents, 2015d)

Like other reported measures in the GRAD Act, the percent change in completers at all levels for each institution was calculated upon a baseline completer count established prior to Year 1. The population means of these completers are visible in Figure 4. During GRAD Act Years 1-5, two institutions reported negative rates for all five years when reporting about the percent change in baccalaureate completers. Two other institutions reported negative rates for change in baccalaureate completers four out of five years. Southern University A&M reported negative results in change in masters completers for the five years of the GRAD Act to date.

To examine the population means of the percent change in baccalaureate completers for statistically significant changes, a one-way repeated measures ANOVA was completed. Four outliers were identified by boxplot and determined to be viable data points. They were retained in the analysis. The percent change in baccalaureate completers was determined to be normally distributed at each time point, as assessed by Shapiro-Wilk's test ($p > .05$). Mauchly's test of sphericity indicated that the assumption of sphericity had been violated, $\chi^2(2) = 31.547$, $p < .0005$. Epsilon (ε) was 0.459, as calculated according to Greenhouse-Geisser, and was used to correct the one-way repeated measures ANOVA. The change in baccalaureate completers was statistically significantly different at the different time points after the implementation of the GRAD Act, $F(1.836, 23.872) = 2.115$, $p < .146$.

Comparing GRAD Act Performance Based Upon Institutional Categories

Important to this study is understanding if the GRAD Act had differing results among the groupings and categories of the institutions in the study population. Research Questions 2, 3, and 4 are concerned with the interaction of the various groupings institutions within the study are commonly divided into, and the outcome of the measures reported in the GRAD Act over time. In other words, do the reported outcomes at the different time points depend on which group an

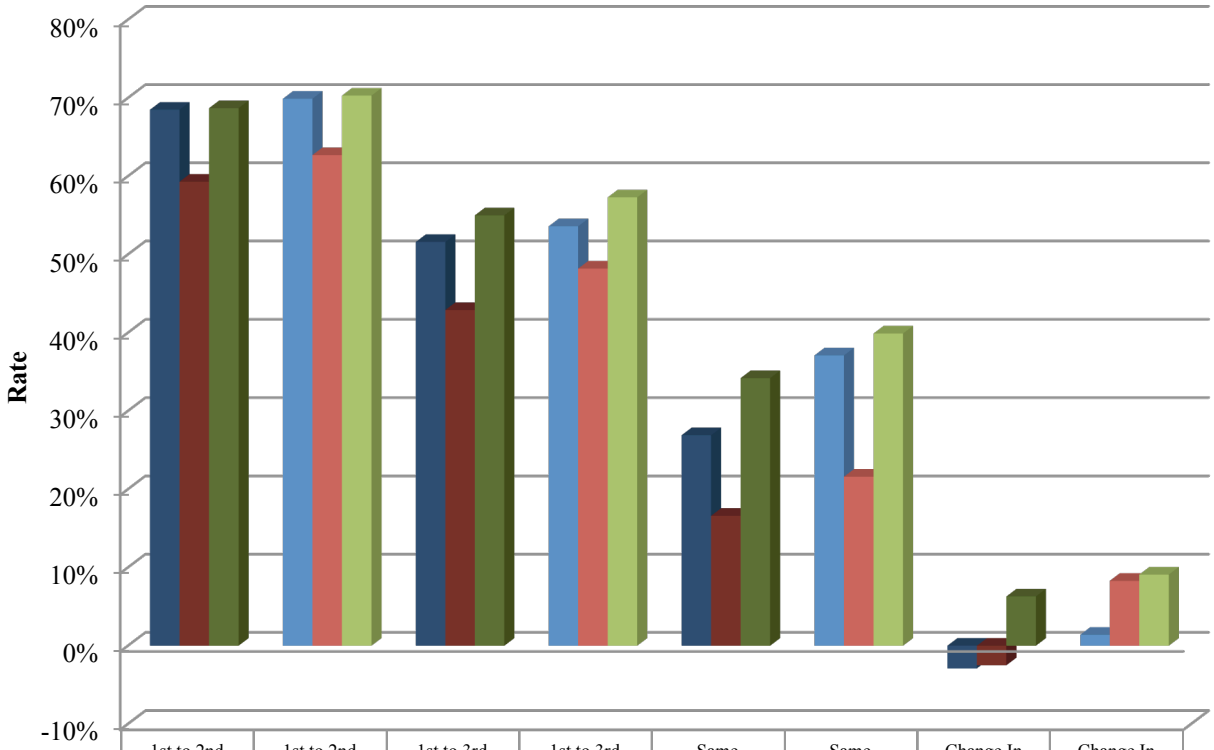
institution is in? In Research Question 2 the Louisiana higher education system the institution belongs to represents the between subjects factor. Research Question 3 explores the Carnegie Classification of an institution as the group. Finally, Research Question 4 looks at whether there are differences between the independent groups of region, enrollment size, and institutional type and the selected dependent variables over time.

To understand if there is an interaction between the two independent variables (group or characteristic, and time) on the dependent variable (student success measure) a mixed ANOVA is used. The selected performance indicators used as dependent variables to answer Research Questions 2, 3, and 4 are the same core student success measures identified in the GRAD Act results previously: 1st to 2nd year retention rate, 1st to 3rd year retention rate, same institution graduation rate, and percent change in baccalaureate completers. Mixed ANOVA were run to analyze the results from the data collected and reported in GRAD Act Year 5. These were compared against the assigned Baseline for each measure in the institution's agreement with the Board of Regents. Post Hoc tests including Tukey were conducted when statistically significant main effects were identified. Tukey was chosen, as it is a technique that enables the researcher to determine which means are significant and which are not. "The Tukey procedure may be used in all cases where a significant F was obtained in the ANOVA calculation" (Bartz, 1981, p. 287).

Higher Education Governing Systems

As indicated in Figure 2, located in Chapter II, Louisiana higher education is actually a two-tiered structure. Although the Board of Regents oversees the funding formula and enforces state policy, management of individual institutions is left to a system board. The institutions that compose this study belong to one of three systems: the Louisiana State University (LSU) System, the Southern System, or the University of Louisiana (UL) System. This study is

interested in exploring if the outcomes of the GRAD Act are impacted by the system to which an institution belongs. Changes to selected performance indicators contained in the GRAD Act are graphed by system in Figure 9. In Figure 9, selected mean group performance indicators of the three Louisiana higher education systems at their Baseline measurements and at Year 5 of the Grad Act across the study population (Louisiana Board of Regents, 2015b, pp. 8-16).



	1st to 2nd Year Retention Baseline	1st to 2nd Year Retention Year 5	1st to 3rd Year Retention Baseline	1st to 3rd Year Retention Year 5	Same Institution Graduation Baseline	Same Institution Graduation Year 5	Change In Baccalaureate Completers Baseline	Change In Baccalaureate Completers Year 5
LSU	68.50%	69.90%	51.60%	53.60%	26.90%	37.10%	-2.90%	1.40%
Southern	59.30%	62.70%	42.90%	48.20%	16.60%	21.60%	-2.50%	8.30%
UL	68.70%	70.30%	55.00%	57.30%	34.20%	39.90%	6.30%	9.10%

Measure by System

Figure 9. Institutional Type Across Study Populations.

1st year to 2nd year retention. To answer Research Question 2, a series of mixed ANOVAs were conducted to see if the selected performance indicators differ between the three Louisiana higher education governing systems studied. 1st to 2nd year retention rate presented a single outlier in the data, as assessed by inspection of a boxplot for values greater than 1.5 box-lengths from the edge of the box. It was investigated and determined to be a true data point and was therefore retained in the analysis. The rate was normally distributed for both Baseline and Year 5 time points, as assessed by Shapiro-Wilk's test ($p > .05$). There was homogeneity of variances, as assessed by Levene's test of homogeneity of variance ($p > .05$). Levene's test is an inferential statistic used to assess the equality of variances for a variable calculated for two or more groups (Levene, 1960). Analysis also indicated there was homogeneity of covariances, as assessed by Box's test of equality of covariance matrices ($p = .061$). Box's test is used to determine whether two or more covariance matrices are equal (Tavakoli, 2013). With 2 levels of repeated measures, there is no need to conduct the Mauchly's test of sphericity. There was no statistically significant interaction between the implementation of the Act and time on 1st to 2nd year retention rate, $F(2,11) = .118$, $p = .890$, partial $\eta^2 = .021$.

The main effect of time showed no statistically significant difference in rate at the different time points, $F(1, 11) = 1.908$, $p = .195$, partial $\eta^2 = .148$. The main effect of system showed that there was not a statistically significant difference in 1st to 2nd year retention rate between higher education systems $F(2, 11) = .813$, $p = .468$, partial $\eta^2 = .129$. There was an increase in rate from the UL System to the rate in the Southern System, a mean increase of .08494, 95% CI [-.09, .26], which was not statistically significant ($p = .452$). There was a decrease from the LSU System 1st to 2nd year retention rate to the UL System rate, a mean decrease of -.00331, 95% CI [-.15, .14], which was not statistically significant ($p = .998$).

Analysis also indicated a decrease in 1st to 2nd year retention rate from the Southern System to the LSU System rate, a mean decrease of -.008163, 95% CI [-.84, .67], which was not statistically significant (p = .784).

Of the 14 institutions in the population study, three are part of the LSU System, nine the UL System, and the two belong to the Southern System. All three systems showed an improvement to their mean retention rate from Baseline to Year 5. The largest gain was made by the Southern system, which improved the group mean 1st to 2nd year retention rate by 3.4% to the Year 5 measure of 62.7% (M = .62700, SD = .100409).

1st year to 3rd year retention. When analyzed for this study, 1st to 3rd year retention rate showed there were no outliers in the data, as assessed by inspection of a boxplot for values greater than 1.5 box-lengths from the edge of the box. Baseline measures indicated in the GRAD Act and Year 5 actuals by system were examined with a mixed ANOVA. A Shapiro-Wilk's test showed the rate was normally distributed at both time points, ($p > .05$). Levene's test indicated that there was homogeneity of variances. The analysis also indicated that the assumption of homogeneity of covariances was met (p = .020). At Baseline, the UL System indicated the highest 1st to 3rd year retention rate at 54.9% (M = .54975, SD = .055330). Although the UL System retained the highest rate by Year 5 with 57.2%, the Southern System made the largest gain increasing from 42.9% to 48.2% (M = .48250, SD = .147785). Tests of within-subjects effects showed there was no statistically significant interaction between systems and time on 1st to 3rd year retention rate, F(2, 11) = .449, p = .649, partial η^2 = .076.

The main effect of time showed a statistically significant difference in 1st to 3rd year retention rate at the different time points, $F(1, 11) = 5.699$, p = .036, partial η^2 = .341. There was a increase in 1st to 3rd year retention rate from 49.8% pre-GRAD Act to 53.1% (M = .531, SD =

.040) in Year 5, a statistically significant increase of 3.2% (95% CI, .463 to .598), $p = .036$. The main effect of system showed that there was not a statistically significant difference in 1st to 3rd year retention rate between the state's higher education systems $F(2, 11) = .735$, $p = .502$, partial $\eta^2 = .118$.

Same institution graduation rate. A mixed ANOVA was again used to examine differences between group means and same institution graduation rate at different times. There were no outliers in the data, as assessed by inspection of a boxplot for values greater than 1.5 box-lengths from the edge of the box. Same institution graduation rate was normally distributed at both time points, as assessed by Shapiro-Wilk's test ($p > .05$). There was homogeneity of variances, as assessed by Levene's test of homogeneity of variance ($p > .05$). Homogeneity of covariances was also indicated, as assessed by Box's test of equality of covariance matrices ($p = .023$). With only two time periods examined, sphericity can be assumed. Profile plots displayed that although all systems had positive gains, the LSU System had the largest increase in same institution graduation rate from Baseline to Year 5. Baseline measures for each system were different by almost 8% with the Southern system having the lowest at 16.6% (M = .16650, SD = .164756). Examination of the test of within-subjects effects indicated there was no statistically significant interaction between the system and time on same institution graduation rate, $F(2,11) = 1.327$, $p = .305$, partial $\eta^2 = .194$.

Time as a main effect showed a statistically significant difference in same institution graduation rate from Baseline to Year 5, $F(1, 11) = 21.459$, $p = .001$, partial $\eta^2 = .661$. The population mean rate increased from 25.9% (M = .259, SD = .045) to 32.9% (M = .329, SD = .042). Tests of between subjects effects calculated the main effect of system showed that there

was no statistically significant difference in statewide graduation rate between the LSU, Southern, and UL Systems $F(2, 11) = 1.364$, $p = .296$, partial $\eta^2 = .199$.

Change in baccalaureate completers. To conclude the exploration the differences based on the Louisiana higher education systems in the study, the change in baccalaureate completers was examined. A mixed ANOVA was utilized to examine differences between population group means and the change in baccalaureate completers at different times. A boxplot revealed no outliers in the data. Normality was tested with Shapiro-Wilk's and found to be normally distributed at all time points ($p > .05$). Levene's test of homogeneity of variance indicated that the assumption of homogeneity of variances had been violated ($p = .008$). This indicated the need for robust mixed ANOVA methods, which are not possible in SPSS. Further analysis with a mixed ANOVA was not conducted due to the likely results of a Type I error.

Carnegie 2010 Basic Classification

Research Question 3 sought additional insight of the reported data by exploring the differences based on the Carnegie Classifications of the institutions. Knowing if there is disparity in how institutional classifications respond to GRAD Act policy as implemented, may allow policy makers to make more informed decisions in the future. The 2010 Basic Carnegie classification system was used in the organization of the data. Information for each institution was downloaded as a variable from the IPEDS data center website as described in Chapter III. Carnegie classifications of each institution in the study are indicated in Table 7.

Table 7

Carnegie Classifications of Study Population by Institution and Size

Carnegie Classification	Institution	Size
RU/VH: Research Universities (Very High Research Activity)	LSU A & M	20,000 and above
RU/H: Research Universities (High Research Activity)	LA Tech	10,000 - 19,999
	UL Lafayette	10,000 - 19,999
	UNO	10,000 - 19,999
Master's L: Master's Colleges and Universities (Larger Programs)	Southeastern	10,000 - 19,999
	McNeese	5,000 - 9,999
	Northwestern	5,000 - 9,999
	Southern BR	5,000 - 9,999
	UL Monroe	5,000 - 9,999
Master's M: Master's Colleges and Universities (Medium Programs)	Grambling	5,000 - 9,999
	Nicholls	5,000 - 9,999
	LSU S	1,000 - 4,999
	Southern NO	1,000 - 4,999
Bac/A&S: Baccalaureate Colleges--Arts & Sciences	LSU A	1,000 - 4,999

Source: National Center for Education Statistics (2015b)

1st year to 2nd year retention. A series of mixed ANOVAs were conducted on the same student success variables used in Research Questions 1 and 2. This analysis was conducted to see if the selected performance indicators differ between the Carnegie classification of the institutions studied and the different time points. When examining 1st to 2nd year retention rate, boxplot showed one extreme outlier. The outlier was investigated and retained for analysis after it was determined to be a true data point. The assumption of normality was violated as assessed by Shapiro-Wilk's test ($p < .05$). A Normal Q-Q plot was also conducted on the variables, as it visually represents a good test statistic for normality when plotted (Filliben, 1975). The plot also showed the residuals too distorted from the diagonal line and suggested that the data violates the assumption of normality. Levene's test of homogeneity of variance indicated that there was not homogeneity of variances, ($p < .05$). Further analysis of the mixed ANOVA was not possible, as SPSS does not provide for robust mixed ANOVA tests.

1st year to 3rd year retention. Data for 1st to 3rd year retention rate was viewed in box plot and found to have one outlier. The data point was retained after being confirmed accurate, as the researcher does not believe it would materially affect results. The rate was normally distributed for at Baseline and Year 5 time points, as assessed by Shapiro-Wilk's test ($p > .05$). The analysis also determined there was homogeneity of variances, as assessed by Levene's test of homogeneity of variance ($p > .05$). Homogeneity of covariances was also affirmed, as assessed by Box's test of equality of covariance matrices ($p = .387$). Profile plots of the estimated marginal means output by SPSS showed that all groups of Carnegie classification reported increases in 1st to 3rd year retention rate from Baseline to Year 5, with the exception of the one very high research activity institution, which experienced a decrease. There was no

statistically significant interaction between the Carnegie classification and time on 1st to 3rd year retention rate, $F(4,9) = 1.124$, $p = .346$, partial $\eta^2 = .363$.

The main effect of time showed no statistically significant difference in 1st to 3rd year retention rate at the different time points, $F(1, 9) = 3.486$, $p < .095$, partial $\eta^2 = .279$. However, the main effect of Carnegie classification showed that there was a statistically significant difference in 1st to 3rd year retention rate between classification groups $F(4, 9) = 6.633$, $p = .009$, partial $\eta^2 = .747$. The lone baccalaureate arts and sciences institution saw the largest increase in the rate going from 31.3% (M = .313, SD = .078) at the Baseline to 38.5% (M = .385, SD = .058) in Year 5. The medium sized masters college and universities group saw the next largest increase with mean improvement of 4.7% by Year 5 (M = .485, SD = .029). Post Hoc testing by Carnegie classification was not possible in SPSS because more than one group had less than two cases.

Same institution graduation rate. Further analyzing the metric of same institution graduation rate and difference between Carnegie classifications at the Baseline and Year 5 was accomplished by mixed ANOVA as well. Two outliers were identified via box plot. They were both retained for analysis. The researcher determined them to be true data and believes they will not materially affect the outcome. The data on same institution graduation rate however was not normally distributed for all the time points, as assessed by Shapiro-Wilk's test ($p > .05$). Visually the residuals are distorted enough from the diagonal line of Normal Q-Q Plot to suggest that the data violates the assumption of normality as well. Despite this violation of normality, there was homogeneity of variances, as assessed by Levene's test of homogeneity of variance ($p > .05$). Due to these results, the analysis continued. Box's test of equality of covariance matrices indicated there was also homogeneity of covariances, ($p = .053$). Examining the Profile

Plots output in SPSS showed that all Carnegie classification groups in the study population experienced increases in their estimated marginal means of same institution graduation rate. Very high research activity institutions saw the best increases in the study period.

Tests of within-subject effects showed there was no statistically significant interaction between Carnegie classification and time on same institution graduation rate, $F(4,9) = .103$, $p = .979$, partial $\eta^2 = .044$. Analysis did specify however that the main effect of time showed a statistically significant difference in same institution graduation rate at the two time points, $F(2, 84) = 390.458$, $p < .0005$, partial $\eta^2 = .903$. Tests of between subject effects further indicated the main effect of Carnegie classification showed that there was a statistically significant difference in same institution graduation rate between groups $F(4, 9) = 5.936$, $p = .013$, partial $\eta^2 = .725$. Post Hoc testing by Carnegie classification was not possible in SPSS because more than one group had less than two cases.

Change in baccalaureate completers. To conclude the exploration the differences based on the Carnegie Classifications of the institutions the percent change in baccalaureate completers was also analyzed with a mixed ANOVA. A single outlier was assessed by inspection of a boxplot for values greater than 1.5 box-lengths from the edge of the box. It was retained as a true data point. A Shapiro-Wilk's test indicated that the data was not normally distributed at all time points ($p > .05$). The analysis of the mixed of ANOVA continued despite the violation. The residuals were charted on a Q-Q plot and showed a distortion from the diagonal line, which suggested that the data violates the assumption of normality. This distortion decreased from the Baseline to Year 5 periods but did not disappear. The analysis did show there was homogeneity of variances, as calculated by Levene's test of homogeneity of variance ($p > .05$). Box's test of equality of covariance matrices also determined there was homogeneity of covariances, ($p =$

.385). Profile plots indicate that estimated marginal means for all classification groups increased over time with the exception of master's colleges and universities with larger programs. However, there was not a statistically significant interaction between the Carnegie classification and time on change in baccalaureate completers, $F(4,9) = .466$, $p = .759$, partial $\eta^2 = .172$.

The analysis was completed with examination of within-subject effects and between-subject effects. When conducting tests of within-subjects effects, the main effect of time showed no statistically significant difference in baccalaureate completers, $F(1, 9) = 2.113$, $p = .180$, partial $\eta^2 = .190$. Similarly the main effect of Carnegie classification showed that there was not a statistically significant difference in change in baccalaureate completers between groups $F(4, 9) = .592$, $p = .677$, partial $\eta^2 = .208$.

Comparing GRAD Act Performance Based Upon Institutional Groups

In answering Research Question 4, a similar approach was taken in selection of student success measures and data analysis. A series of mixed ANOVAs were conducted on the variables common to the population of the study: 1st to 2nd year retention rate, 1st to 3rd year retention rate, same institution gradation rate, and percent change in baccalaureate completers. These selected performance indicators were reported by each institution in the study, and also comprise the core of the student success objectives in the GRAD Act. Data for each was obtained from either the Board of Regents or IPEDS.

Geographic Region

"Region" of the institution in Research Question 4 refers to the region within the state of Louisiana in which the institution is located. The name and location of each region is identified in Figure 3, located in Chapter II. Understanding if there is an interaction between the student success variables over time on the region of an institution may be an important consideration for

policymakers when considering the impacts of the GRAD Act. Regions are indicated in Figure 3 and identified for each institution in Table 5, both in Chapter II. Analyzing the data with SPSS gave mixed results when examining by region. Fully half of the eight regions identified contain only one institution apiece. No outliers were evident in the data when assessing via boxplot. SPSS omitted data for all regions where data was constant (only one institution present). The Northwest area of the state contains the most institutions studied at four. The Capital area, the Southwest/Central area, and the Southeast area of Louisiana contain two institutions each from the study population.

When examining the data for each region by the selected performance variables at both Baseline and Year 5, several trends emerged. The Southeast area showed increases in estimated marginal means of all variables, but held the lowest rates in both 1st to 3rd year retention and same institution graduation. The Florida Parish area had the steepest decline in marginal means of 1st to 2nd year retention rate, dropping more than 5% from Baseline (M = .675) to Year 5 (M = .621). The Capital area and the Northeast area also saw steep declines in 1st to 2nd year retention rate in the same time period. At the same time, the Southeast area also had the greatest increase in average change in baccalaureate completers, increasing from a Baseline of -.7% (M = -.007, SD = .079) to 19.5% (M = .195, SD = .100) by the end of the study period.

When attempting to analyze the data with a mixed ANOVA, Box's test of equality of covariance matrices could not be conducted and Post hoc tests could not be performed because more than one group (region) had fewer than two cases. Further results of mixed ANOVA testing by region were also unreliable in SPSS due to this issue.

Enrollment Size

The term "enrollment" in Research Question 4 refers to the institutional size category utilized in the Integrated Post-secondary Education Database System. Examining institutions' outcomes based upon their enrollment size difference may prove to be insightful when considering the outcomes of the GRAD Act. Data was downloaded from IPEDS for this category variable for all institutions in the study population. Each institution is listed by institutional size category in Table 7.

1st year to 2nd year retention. When exploring the four selected student success measures over time by institutional category size, a mixed ANOVA was used. Data was examined by boxplot for outliers. A single outlier was identified in 1st to 2nd year retention rate. After being investigated and confirmed as true data, it was retained in this analysis, as the researcher believes the outlier will not materially change the results. Data for 1st to 2nd year retention rate was normally distributed for all sizes at all time points, as assessed by Shapiro-Wilk's test ($p > .05$). 1st to 2nd year retention rate data does not have equal variances and therefore further analysis by mixed ANOVA in SPSS was not possible.

1st year to 3rd year retention. When examining the data with Boxplot, a single outlier was identified 1st to 3rd year retention rate. After being investigated and confirmed as true data, it was retained in this analysis, as the researcher believes they will not materially change the results. Data for 1st to 3rd year retention rate was normally distributed for all sizes at all time points, as assessed by Shapiro-Wilk's test ($p > .05$). 1st to 3rd year retention rate did not present homogeneity of variances, as assessed by Levene's test of homogeneity of variance ($p > .05$). Therefore further analysis of the variable by mixed ANOVA in SPSS was not possible.

Same institution graduation rate. No outliers were indicated for same institution graduation rate as assessed by inspection of a boxplot for values greater than 1.5 box-lengths from the edge of the box. Same institution graduation rate analysis indicated the data for this variable is not normally distributed. The variable also does not present equal variances, as assessed by Levene's test of homogeneity of variance, and therefore further analysis by mixed ANOVA in SPSS was not possible.

Change in baccalaureate completers. No outliers were indicated for change in baccalaureate completers as assessed by inspection of a boxplot for values greater than 1.5 box-lengths from the edge of the box. Data for change in baccalaureate completers was normally distributed for all sizes at all time points, as assessed by Shapiro-Wilk's test ($p > .05$). Change in baccalaureate completers indicated homogeneity of variances, as assessed by Levene's test of homogeneity of variance ($p > .05$). There was homogeneity of covariances for change in baccalaureate completers, as assessed by Box's test of equality of covariance matrices ($p = .158$). The estimated marginal means of change in baccalaureate completers of all size categories increased during the study with the exception of institutions sized 5,000 – 9,999. These institutions decreased by just 1.6% from Baseline to Year 5 (M = .060, SD = .060). The smallest institution size, 1,000 – 4,999, had the largest increase in marginal means of change in baccalaureate completers increasing from Baseline (M = -.023, SD = .055) to Year 5 (M = .101, SD = .084). There was no statistically significant interaction between institutional size and time on change in baccalaureate completers, $F(3,10) = .902$, $p = .474$, partial $\eta^2 = .213$. The main effect of time did not show a statistically significant difference in change in baccalaureate completers at the different time points, $F(1, 10) = 1.993$, $p = .188$, partial $\eta^2 = .166$. The main

effect of institutional size category showed that there was no statistically significant difference in change in baccalaureate completers between groups $F(3, 10) = .330$, $p = .804$, partial $\eta^2 = .090$.

Institutional Type

"Institutional type" in Research Question 4 divides the population of the study into commonly understood sub groups. The three types defined for this study are "Flagship," "HBCU," and "four-year." As used in this study "Flagship" identifies an institution as the best-known institution in the state, among the first to be established, and one of the largest and most selective, as well as one of the most research-intensive public universities. "HBCU" refers to Historically Black Colleges and Universities as defined in the Higher Education Act of 1965. In the context of this Research Question, a "four-year" institution is one that does not also share the designation of flagship or HBCU.

1st year to 2nd year retention. The selected performance indicators were examined over time using a mixed ANOVA. When examining the data for differences by institutional type, a number of outliers were identified as assessed by inspection of a boxplot for values greater than 1.5 box-lengths from the edge of the box. These outliers were retained for the analysis after being identified as actual data points. Although it was included in the boxplot, flagship data was not included in some outputs in SPSS due to it representing only one institution in the study and figures therefore remaining constant. 1st to 2nd year retention rate was normally distributed for all time points, as assessed by Shapiro-Wilk's test ($p > .05$). Homogeneity of variance was indicated, as assessed by Levene's test of homogeneity of variance ($p > .05$). Homogeneity of covariances, as assessed by Box's test of equality of covariance matrices was identified for the variable ($p = .512$).

All institution types in the study saw increases from Baseline to Year 5 in the performance indicators examined, with the exception of the flagship type. The flagship experienced a decrease in 1st to 2nd year retention. Although an overall mean decrease was not recorded for the four-year group, 1st to 2nd year retention rates remained almost flat with only a slight increase of .9% (M = .690, SD = .020) recorded by Year 5. The main effect of time showed no statistically significant difference in the rates of 1st to 2nd year graduation rate. However, the main effect of type showed that there was a statistically significant difference in 1st to 2nd year retention rate between institutional types, $F(2, 11) = 5.049$, $p = .028$, partial $\eta^2 = .479$. Post Hoc testing by institutional type was not possible in SPSS because at least one group had less than two cases.

1st year to 3rd year retention. All institutional types in the study saw increases from Baseline to Year 5 in the performance indicators examined, with the exception of the flagship type. When examining 1st to 3rd year retention rate by institutional type, the flagship experienced a decrease in 1st to 3rd year retention by the end of the study period. Data was normally distributed for all time points, as assessed by Shapiro-Wilk's test ($p > .05$). Homogeneity of variances was indicated for 1st to 3rd year retention rate, as assessed by Levene's test of homogeneity of variance ($p > .05$). Homogeneity of covariances, as assessed by Box's test of equality of covariance matrices was identified, ($p = .466$). The main effect of time showed no statistically significant difference in the rates of 1st to 3rd year retention at the different time points. Tests of between-subjects effects indicated the main effect of type showed that there was no statistically significant difference in 1st to 3rd year retention rate between institutional types.

Same institution graduation rate. Results indicate that when it came to same institution graduation rate, the flagship outperformed other types increasing from 60.7% (M = .607, SD = .126) at Baseline, to 69.1% (M = .691, SD = .100) by Year 5. The variable of same institution graduation rate and was found by Shapiro-Wilk's test to violate normalcy in at least one time point. Despite the violation of normality, there was homogeneity of variances of the variable, as assessed by Levene's test of homogeneity of variance ($p > .05$). Homogeneity of covariances, as assessed by Box's test of equality of covariance matrices was identified ($p = .955$). In tests of within-subjects effects, the main effect of time showed a statistically significant difference in same institution graduation rate at the different time points, $F(1, 11) = 11.958$, $p = .005$, partial $\eta^2 = .521$. The main effect of type also showed a statistically significant difference in same institution graduation rate between institutional types, $F(2, 11) = 5.030$, $p = .028$, partial $\eta^2 = .478$. Post Hoc testing by institutional type was not possible in SPSS because at least one group had less than two cases.

Change in baccalaureate completers. HBCUs had the largest mean increase in the variable of change in baccalaureate completers, going from 7.8% (M = .078, SD = .057) at the Baseline time to 13.6% (M = .136, SD = .078) by Year 5. The change in baccalaureate completers was found by Shapiro-Wilk's test to violate normalcy in at least one time point. Additionally the change in baccalaureate completers indicated there was not homogeneity of variances, as assessed by Levene's test of homogeneity of variance ($p > .05$). Further examination by mixed ANOVA on change in baccalaureate completers by institutional type was therefore unreliable in SPSS outputs. The main effects of time and type showed no statistically significant difference in the change in baccalaureate completers at the different time points or institutional types.

The GRAD Act and Financial Indicators

The remaining research questions focus on the funding aspect of the GRAD Act. Although Research Questions 1 through 4 focused on differences in student success measures and various groupings, Research Questions 5 through 7 focus on financial changes and relationships. This is intended to give a more in-depth understanding of the phenomena of performance funding as it is utilized in the GRAD Act. State appropriations from the state of Louisiana to fund institutions were examined over time for trends and changes. A variable that is personal to students and their families – cost of tuition – was also scrutinized for changes after the GRAD Act.

Change in State Appropriations

Research Question 5 explores the changes in state funding levels since the implementation of the GRAD Act. Data was acquired from IPEDS and the Board of Regents. Total year-over-year changes have been graphed in Figure 10. Louisiana has experienced continious changes to its higher education funding levels since the mid 2000s. In the 1990s, state allocations were to Louisiana institutions were well below peer averages. Although allocations did increase slowly over time, it was not until 2007 that appropriations to institutions had a significant increase year-over-year. In 2008 Louisiana finally reached the Southern Region Education Board (SREB) average for Full-Time Equivalent (FTE) funding.

Whatever their source, by 2009 state appropriations to institutions had already begun to decline. Figure 10 graphs this change over time. In 2010, the institutions in the study population experienced a reduction of more than 40% in the amount of state appropriations received from the previous year. Each year thereafter, state appropriations continued to decline. By 2014, state

appropriations to institutions in the study population were lower than had had been a decade prior.

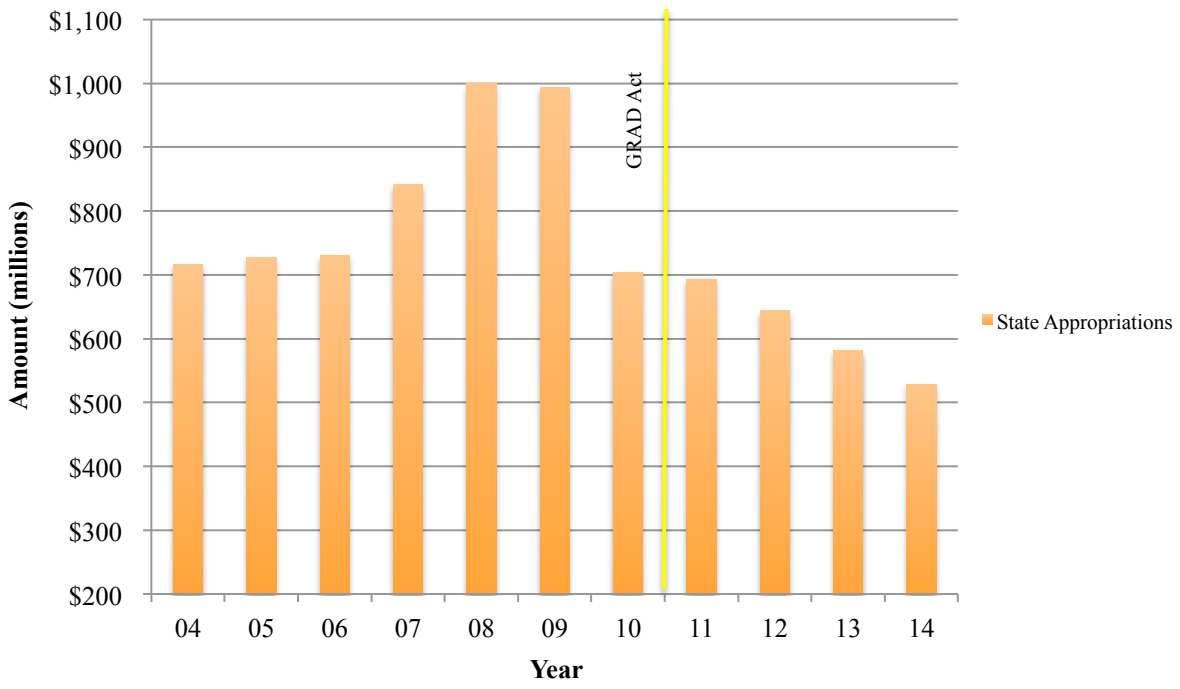


Figure 10. Total State Appropriations to Institutions in Study.

In the first year of GRAD Act, appropriations to institutions in the study saw only a relatively slight decrease from the previous year going from approximately $704 million 2010 to $693 million in 2011. The downward trend in state appropriations to these institutions both continued and accelerated after that year. By 2014, the year with the most recent data available, state appropriations to institutions in the study had been reduced to $528 million. As seen in Figure 11, the institutions in the study have faced significant reductions year-over-year since 2009. These reductions came at the same time the GRAD Act required institutions to increase their productivity through increased retention, graduation, and institutional efficiency.

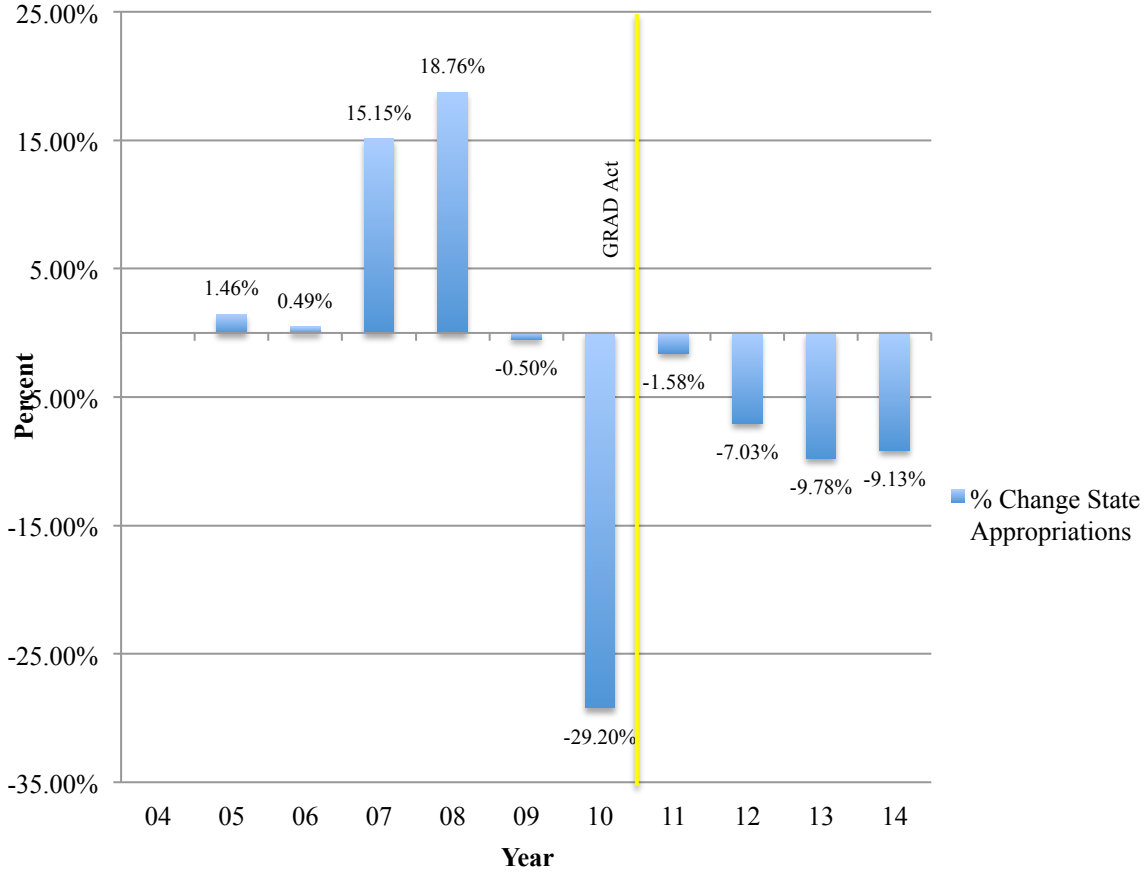


Figure 11. Change in State Appropriations Across Study Population.

The Relationship between Appropriations and Performance

Research Question 6 is concerned with the associative relationship between funding and the selected performance indicators. Many higher education funding policies operate with the assumption that funding impacts the outcomes of student success. A series of Pearson's correlation tests were used to assess the strength of association between funding and selected student success variables. Pearson's correlation coefficient, r, describes the linear relationship between pairs of variables for quantitative data (Witte & Witte, 2010). Data from both IPEDS and the Board of Regents was utilized in the analysis. To conduct the exploration, state

appropriations for the study group were averaged for each year of available data. Then the student success variables of 1st to 2nd year gradation rate, same institution graduation rate, and total baccalaureate completers reported by the institutions in the study were also averaged for each year. These student success variables were chosen as every institution in the study commonly reported on them both before and after the passage of the GRAD Act. Three Pearson's correlations were then conducted. The averaged state appropriations were examined against each of the student success measures separately to provide a determination of the relationship for each performance indicator.

A Pearson's correlation is often used to discover the relationship between two variables. In this study design, measures of two variables are believed to be paired observations and the Research Question wants to determine the strength of any possible linear relationship between these two paired variables. For example, is there a linear relationship between state appropriations and 1st to 2nd graduation rate? Appropriations and same insitution gradution rate? Appropriations and number of baccalaruareate completers?

When attempting to identify a correlation between state appropriations and 1st to 2nd year retention rate, a scatter plot was first developed. Figure 12 illustrates that there is not a linear relationship between mean funding and the mean retention rate from first to second year during the study period. Transforming the data may have provided a more linear result but was rejected by the researcher as possibly invalidating the data. Pearson's correlation could therefore not be conducted on this variable. Other parametric tests were not conducted. A non-parametric test, such as a Spearman's rank-order correlation would also not been aproriate because the data was non-monotonic.

Figure 12. Relationship of Mean State Appropriations Amount and Mean 1st to 2nd Year Retention Rate From 2007-2014 Across Study Population.

A scatter plot was then developed to examine a possible correlation between state appropriations and same insitution graduation rate, as seen in Figure 13. The scatterplot showed that the data did not violate the assumption of linearity. Both variables were normally distributed, as indicated by a Shapiro-Wilk's test ($p > .05$). A Pearson's product-moment correlation was run to assess the relationship between state appropriations and same insitution graduation rate in the years 2007 – 2014. Results indicated that there was a strong negative correlation between funding and same insitution gradution rates, $r(6) = -.890$, $p = .003$.

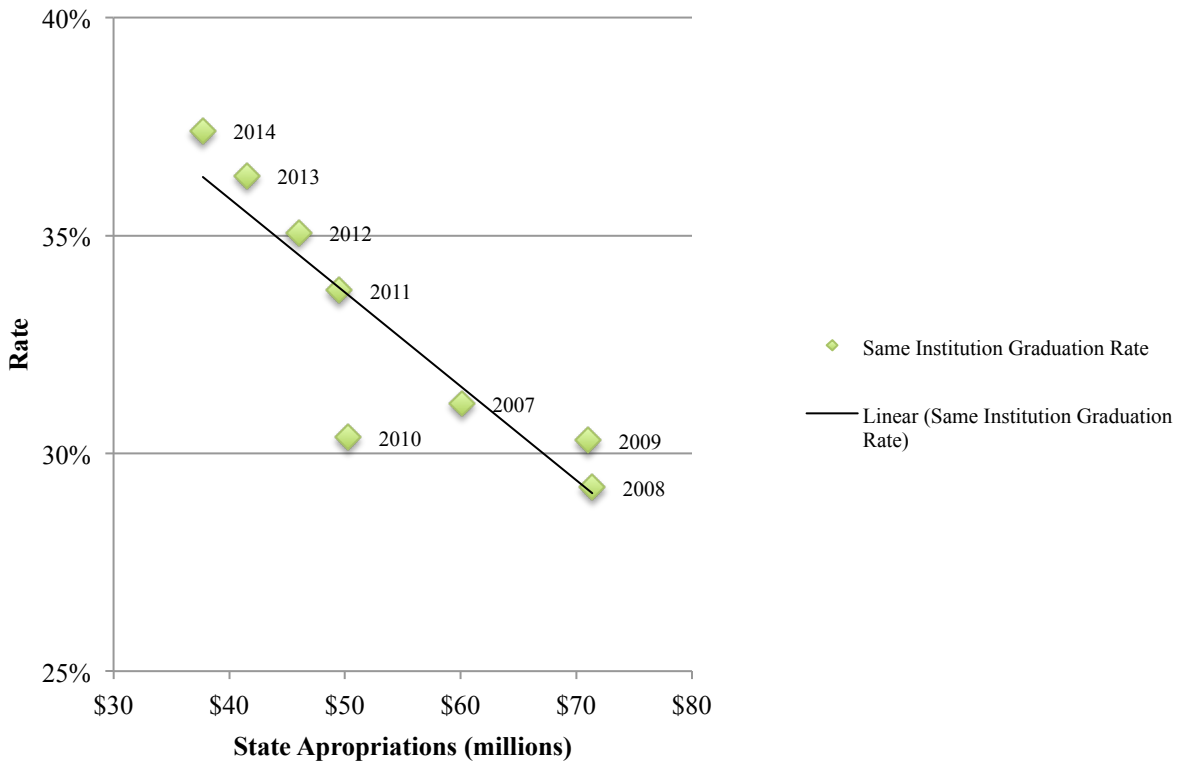


Figure 13. Relationship of Mean State Appropriations Amount and Mean Same Institution Graduation Rate From 2007-2014 Across Study Population.

State appropriations and baccalauraete completers were then graphed on a scatterplot in Figure 14. Visual anylisis of the plot showed the relationship to be linear with both variables normally distributed, as assessed by Shapiro-Wilk test ($p > .05$), and there were no outliers. A Pearson's product-moment correlation was then run to examine the relationship between state appropriations and baccalaureate completers in the years 2007 – 2014. Results of the test indicated there was a strong negative correlation between funding and baccalauraete completers, $r(6) = -.781$, $p = .022$.

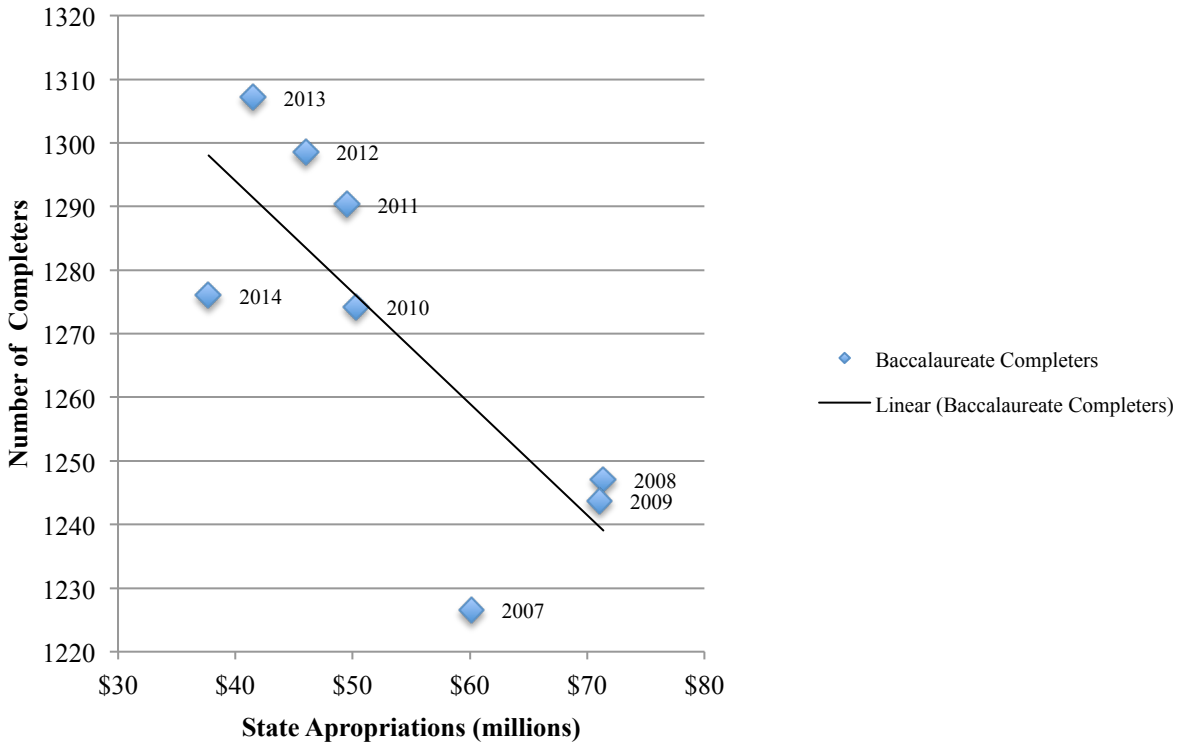


Figure 14. Relationship of Mean State Appropriations Amount and Mean Number of Baccalaureate Completers From 2007-2014 Across Study Population.

Similar data is presented in Table 8. As has been shown, state appropriations began declining in 2008 and have continued to do so through the most recent reporting year. Of the variables examined for correlation, only same institution graduation indicated a correlation statistically significant at the .001 level (two-tailed) with an outcome of $r(6) = -.890$, $p = .003$. The trend of continuiosly increasing same insitution graduation rate is visible within the table as well.

Table 8

r-Values *of Correlation between State Total State Appropriations across Institutions in the Study and the Population Means for Selected Performance Measures, 2007 - 2014*

Year	State Appropriations (in millions)	1st -to-2nd Year Retention Rate	Same Institution Graduation Rate	% Change Baccalaureate Completers
2007	$841,468	64.30%	31.15%	
2008	$999,313	64.86%	29.22%	1.67%
2009	$994,364	67.03%	30.30%	-0.26%
2010	$703,987	68.27%	30.36%	2.45%
2011	$692,866	67.91%	33.75%	1.27%
2012	$644,130	67.56%	35.06%	0.64%
2013	$581,155	67.51%	36.38%	0.67%
2014	$528,107	68.99%	37.40%	-2.38%
r value		-.717*	-.890**	-.781

Note. *Relationship is not linear. ** Correlation is significant at the 0.01 level (two tailed).

Changes in Tuition

Research Question 7 explores the changes to institutional tuition during the study period. In the context of this study "tuition" is defined as the mandatory tuition and fees assessed to undergraduate resident students attending 12 hours per semester at an institution in the study population. Louisiana has had historically low tuition at its public colleges and universities for many years. Data for this exploration was sourced from the Board of Regents annual Tuition and Fees report, as well as IPEDS data. Average tuition cost for the institutions comprising this study are shown in Figure 15. As it indicates mean tuition costs significantly increased from $2,540 (SD = $458) in 2002 to a mean of $7,499 (SD = $995) in 2015. At the beginning of the GRAD Act average tuition was calculated at $4,438 (SD = $603). As can be seen, the pace of the tuition increase has been accelerating in recent years.

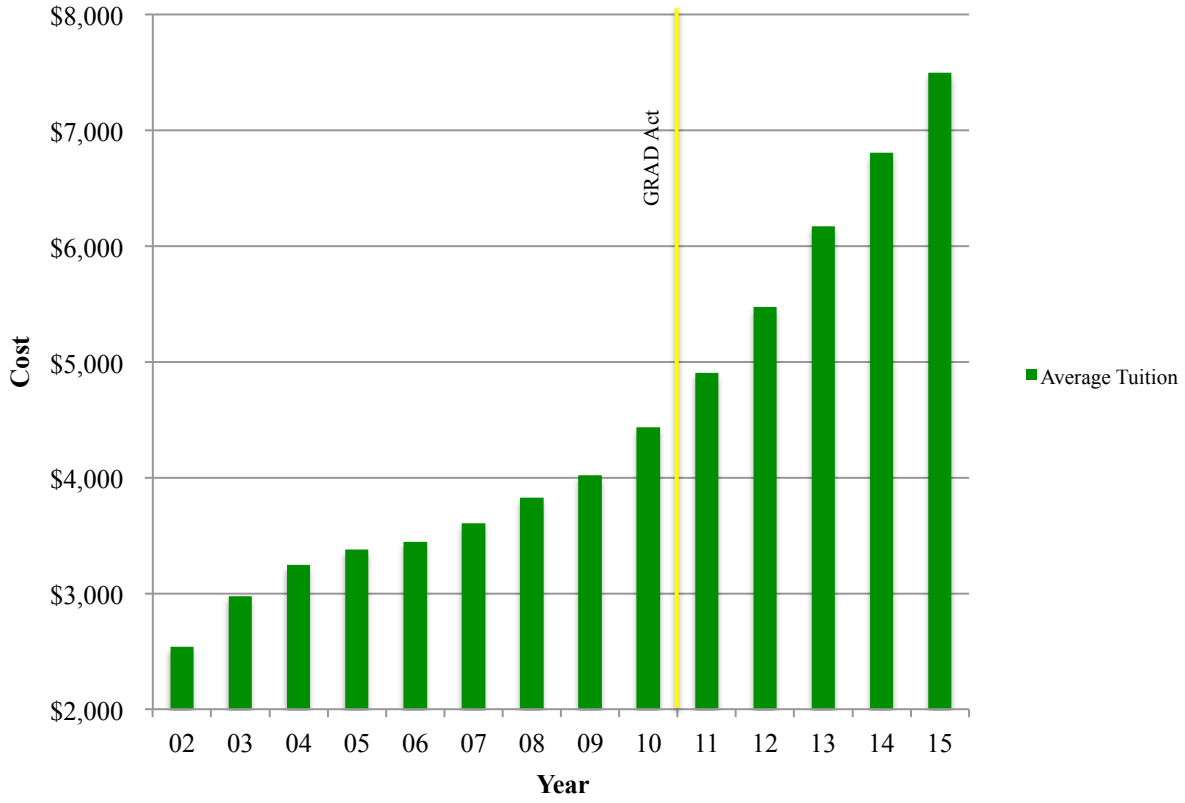


Figure 15. Study Population Average Tuition.

As seen in Figure 16, the cost to students for tuition and mandatory fees has increased since 2006. Since the passage of the GRAD Act, the increases have been at least 10% or more each year. The tuition authority granted to individual institutions as the "incentive" portion of the GRAD Act, appears to have been exercised by all institutions in the study population.

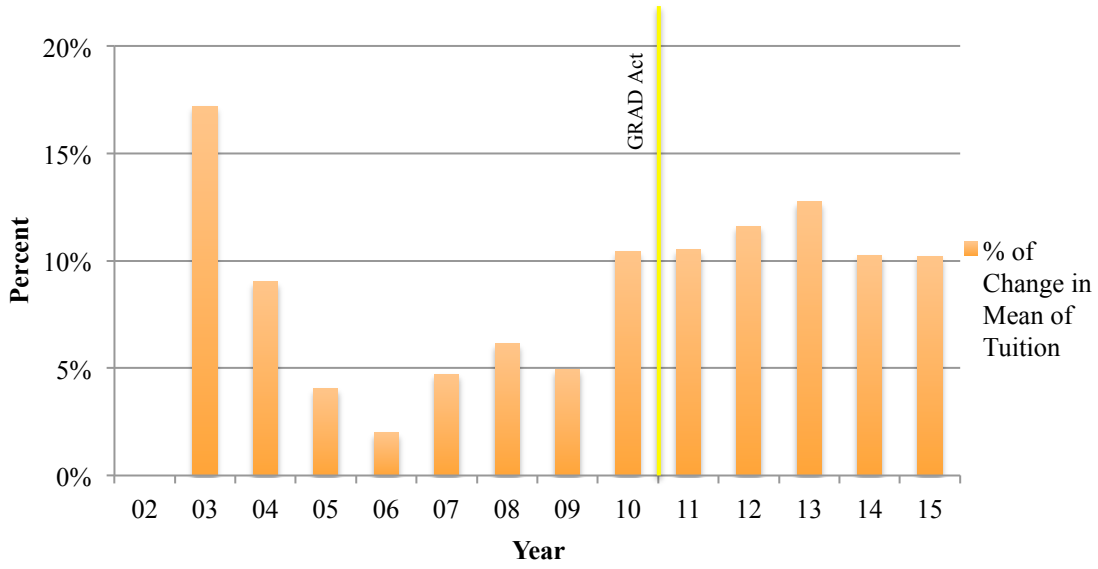


Figure 16. Change in Mean Tuition Across Study Population.

As of 2015, all institutions in the study population had undergone both increases in their average tuition and as well as a reduction in state appropriations. By 2010 the GRAD Act required institutions to begin meeting and reporting on specific measures considered important to success even as state support dwindled and costs to students increased. As Figure 17 shows, in 2013 state appropriations per FTE fell below the level of institutional revenue and fees per FTE as Louisiana's state economy continued to struggle. At approximately the same time, institutions were required to add additional reporting mechanisms to their annual GRAD Act measures.

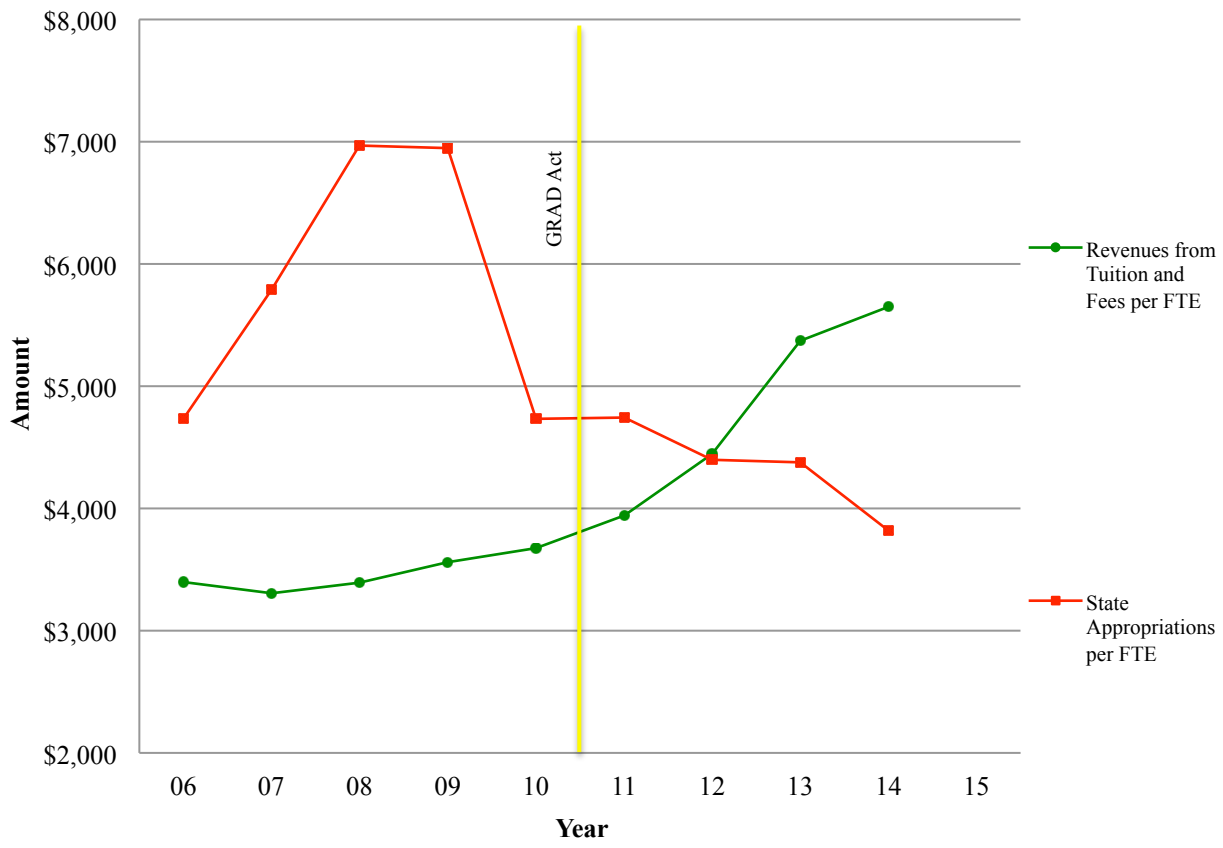


Figure 17. Study Population Revenues and Appropriations per FTE.

Although tuition costs have increased at all institutions in the study, they still vary significantly by institution. Louisiana State University had the highest tuition in 2015 for the study population at $9660. The least costly institution was Southern University New Orleans with a cost of $5,899 for mandatory tuition and fees in 2015. Most of the institutions in the University of Louisiana System were priced within approximately one thousand dollars of each other at the midpoint between the high and low cost institutions of the study. Increasing tuition cost is not a new phenomenon in higher education. Louisiana's sudden and dramatic increases in tuition in the last several years however, have given some concern to observers.

The year of 2008 has become a popular time point from which to compare changes over time. As it corresponds with the global economic downturn, it often makes logical sense to those

interacting with data. In Louisiana it also corresponds with the last year of increases in state appropriations. Each year since, appropriations have decreased, while tuition has increased. It is also the year Louisiana reached the Southern Region Education Board (SREB) average for Full-Time Equivalent (FTE) funding Table 9 illustrates these changes on an institutional level. Tuition authority was a provision within the GRAD Act, but allows for only a 10% increase year over year by the institutions. While it does appear that institutions exercised this authority each year, tuition increases have not offset the decrease in state appropriations to individual institutions.

Table 9

Difference in Semester Mandatory Tuition and Fees by Dollar and Percent at Each Institution in the Study Population, 2008-2015

System	Institution	Fall 2008	Fall 2015	Difference	% Difference
LSU	LSU A & M	$5,005	$9,660	$4,655	93.01%
	LSU A	$3,381	$6,123	$2,742	81.10%
	LSU S	$3,501	$6,711	$3,210	91.69%
Southern	Southern BR	$3,906	$7,346	$3,440	88.07%
	Southern NO	$2,957	$5,899	$2,942	99.49%
UL	Grambling	$3,804	$7,063	$3,259	85.67%
	LA Tech *	$4,881	$8,824	$3,943	80.78%
	McNeese	$3,393	$7,205	$3,812	112.35%
	Nicholls	$3,771	$7,348	$3,577	94.86%
	Northwestern	$3,598	$7,477	$3,879	107.81%
	Southeastern	$3,771	$7,280	$3,509	93.05%
	UL Lafayette	$3,602	$8,244	$4,642	128.87%
	UL Monroe	$3,812	$7,658	$3,846	100.89%
	UNO	$4,222	$8,154	$3,932	93.13%
AVERAGE		$3,829	$7,499	$3,671	96.48%

Note. * Louisiana Tech operates on a quarter system. Figures have been converted to a semester basis. Source: Board of Regents (2015).

Results and Analysis Summary

In Chapter IV, in order to explore the changes in institutional performance indicators over time, descriptive statistical analysis, and repeated measures ANOVA tests were utilized. Further, to investigate the ways in which changes in GRAD Act performance indicators varied based upon institutional characteristics such as state system, Carnegie classification, region of the state, enrollment size, and institutional type, as series of mixed ANOVA tests were used. Descriptive statistical analysis and correlation tests examined the change in tuition and state support after the GRAD Act, as well as the relationship between funding and the selected performance indicators.

In conclusion, review of GRAD Act reports indicated that results of the student success indicators were mostly positive. GRAD Act objectives were achieved at all time points, with the exception of a singular institution in Year 4. In the following chapter, these results will be interpreted as findings, and conclusions supported by this analysis will be presented. Finally, recommendations for policy, practice, and future research will be presented.

CHAPTER V:

FINDINGS, CONCLUSIONS, AND RECOMMENDATIONS

As this study indicated, the state funding structure to institutional budgets and the reporting of key indicators for higher education in Louisiana changed significantly after the passage of the GRAD Act in 2010. This new funding structure has not been sufficiently studied in Louisiana. With the Act's initial six-year expiration date rapidly approaching, quantifiable analysis and results are needed by stakeholders to effectively plan for, prioritize, and allocate finite state resources to higher education. Performance funding is an extensively studied subject, however, Louisiana outcomes have not adequately entered into the literature.

The GRAD Act was examined in this study without set hypotheses about outcomes or funding impacts. The results of the study take no position on whether the GRAD Act is good or bad as policy, only what change occurred, and if set goals - particularly student success measures - were met. In this study, quantitative results are viewed with the understanding that many policies are crafted due to the belief that universities administrators do not place enough emphasis on student outcomes (Rabovsky, 2012); that organizational effectiveness derives from the management of demands, particularly the demands of interest groups upon which the organizations depend for resources and support (Pfeffer & Salancik, 2003); and that - because of the relative short life of the GRAD Act - it is still not well understood nor will its impact on Louisiana higher be known for some time (Jakiel, 2011). Research questions for the study sought to examine change of the selected indicators. An exploration of the available GRAD Act

reports allowed for the study to focus on the results of common student success measures to be used in the statistical analysis of the dataset.

Aggregate analysis of the population data provided a number of interesting results. This will in turn assist in understanding the GRAD Act phenomenon as well as add to further the exploration of performance funding. These mixed results do not provide for compelling evidence that the GRAD Act was more or less of an impact on institutional outcomes than state appropriations, tuition, or any number of other factors. Individual institutions were measured against their own baseline data year-to-year in this study rather than competing against another institutions in performance. If anything these results might suggest that state policy makers should investigate the impacts of declining state support and funding on the ability of institutions to meet specific levels of outcomes.

Chapter V will provide for the interpretation of the study results. First, the summary of findings will be discussed in relationship to the research questions. Each research question is restated and the results from Chapter IV are interpreted. Conclusions supported by the analysis are then discussed. Then, possibilities for additional research are presented. The contribution of the new knowledge will follow as rationale for the study. Recommendations for the implications on policy and practice further explore the phenomenon. Final thoughts about the GRAD Act provide a closing summation of the study.

Discussion of Findings

The institutions that comprised the study population are inclusive of all four-year public, non-specialized colleges and universities of higher education in Louisiana. Analysis of the collected data indicated a common set of variables used by all institutions in their agreed upon GRAD Act reporting. Of the 23 various quantitative measures in the Annual GRAD Act Report

Attachment D (see Appendix B), the institutions in this study population reported on only six common targeted measures between them. Of those, only four were reported starting in the first year of the Act. Annual GRAD Act reports clearly indicate that the study population met all benchmarks and targeted measures since Year 1 of the Act - with the exception of Southern University A&M, which failed the student success area of measures in Year 4. All institutions in the study population met their negotiated benchmarks for performance objectives in the areas of articulation and transfer, workforce and economic development, and institutional efficiency and accountability as seen in Chapter II, Tables 1 and 2, and the results of which for each institution is shown in Appendix B.

The findings of the analysis conducted in Chapter IV are discussed in the Research Questions below. An examination of GRAD Act reports made it possible to identify a set of common performance indicators in order to answer the Research Questions. Four common student success measures were identified: 1st to 2nd year retention rate, 1st to 3rd year retention rate, same institution graduation rate, and percent change in baccalaureate completers. Common characteristics and trends were explored while analyzing the results.

Research Question 1

What have been the changes over time to the selected performance indicators in the LA GRAD Act in the reporting years preceding the implementation of the Act to the first five years following the implementation of the Act? Overall the majority of the means of each selected variable tracked in the study population as part of the GRAD Act show a general positive trend in the time period reported. Each institution's student success variables before and after the GRAD Act are graphically expressed in Appendix C. To gain a more extensive exploration of the indicators common to all institutions reported in the GRAD Act, separate one-way repeated

measures ANOVA were conducted on the variables of 1st to 2nd Year Retention Rate, 1st to 3rd Year Retention Rate, Same Institution Graduation Rate, and Change in Baccalaureate Completers in Years 1-5. Results of the analysis revealed that the implementation of the GRAD Act did not lead to any statistically significant changes in 1st to 2nd year retention rate or 1st to 3rd year retention rate over the time period analyzed. However the results of the repeated measures ANOVA did indicate that there were statistically significant changes in the same institution graduation rate and the change baccalaureate completers in the population studied. Although the institutions included in this study mostly met their goals, not all areas showed significant gains. Some individual indicators did have negative trends in the study period.

The reported indicators contained in the GRAD Act and examined in this study generally improved over time at the population level, but individual institutions gave mixed results. In doing so, the majority of institutions not only met, but also exceeded many targets and benchmarks for some measures. Some institutions had extreme swings year-to-year in a few measures, but increased their overall rate slowly by the end of the study period. Several institutions reported performance indicators that showed repeated year-to-year decreases. The analysis also indicated a number of other interesting results.

The 1st to 2nd year mean retention rate of the population has generally increased over the time. In the five years of the GRAD Act Louisiana State University consistently reported a rate in the 80% range, while Louisiana Tech University reported results in the 70% area. Most institutions in the population had generally positive increases of 1st to 2nd year retention rate; with the exception of Louisiana State University at Alexandria and Southeastern Louisiana University which both have recent decreases year-to-year. Grambling, LSU-A, and LSU-S, Nicholls, SUNO, and UNO all had 1st to 3rd year retention rates that were volatile year-to-year,

but finished in Year 5 higher than they did in Year 1. Southeastern Louisiana University, University of Louisiana Monroe, Southern A&M, and LSU all had slight decline in this metric during the study period.

The change in doctoral completers indicated much larger changes year-to-year than other population means. Two institutions, Southeastern Louisiana University and the University of Louisiana at Monroe, drove these large swings in the population mean rate. Total doctoral degrees granted was driven by Louisiana State University with most of the count each year. The number of bachelors and masters completers has also increased over time in the study population, but saw some slowing in the most recent reporting years. During GRAD Act Years 1-5, two institutions reported negative rates for all five years when reporting about the percent change in baccalaureate completers. Two other institutions reported negative rates for baccalaureate completers four out of five years. However, Southern University A&M reported negative results in masters completers since the start of the GRAD Act.

The majority of performance indicators added after Year 2 of the GRAD Act were not common to all institutions in the study. Some measures such as graduation productivity and percent change in post-baccalaureate completers had only two institutions reporting on these results. The measure for the passage rate for education license examinations was reported by all but one institution in the study. However, it was reported at a 100% rate by all institutions that utilized it as a metric for Years 3-5. Passage rate of the Nursing License Examination was reported by more than one-third of the institutions in the study population after Year 2. Although it is a popular metric in the literature, it was not included in the reporting for all institutions that offered nursing programs at the start of the GRAD Act. It was also one of the few measures that saw a slight decline in the population mean by the end of the study period.

Many institutions also reported several different distance education measures in Years 3-5. The mean counts of students enrolled in distance education and the mean percentage of programs offered via distance education increased in each reporting year for all studied institutions that reported on them as part of their GRAD Act assessments.

Research Question 2

How do the selected performance indicators differ between the three Louisiana higher education governing systems studied? Results indicated there were no statistically significant differences in the main effect of higher education governing system on 1st to 2nd year retention rate, 1st to 3rd year retention rate, and same institution graduation rate during the study period. However, the Southern System did make much larger gains in several measures in the studied time period than other state systems.

Results at the Baseline of the GRAD Act mirrored those at Year 5 with slight increases in mean rates due to time. In other words, at the baseline the Southern System had the lowest targeted mean 1st to 2nd year retention rate with 59.30%, the LSU System second with 68.5%, and the UL System at highest target mean with 68.70%. At Year 5 the order stayed the same although the systems had improved to 62.7%, 69.9%, and 70.3% respectively. This pattern was similar for 1st to 3rd year retention rate and same institution graduation rate. The trend is illustrated well in Figure 9, seen in Chapter IV.

Institutions in the Southern System had the largest gain in 1st to 2nd year retention rate with a group mean rate that increased by nearly 3.4% in five years. The Southern System also out gained the other systems in the study by increasing their 1st to 3rd year retention rate by 5.3% in the across the study period. However, when examining same institution graduation rate, the LSU System reported the largest gains of 9.2% during the study period. This brought their year

five-year mean rate to 37.1%, nearly catching up to the UL System that reported a mean rate of 39.9% the same year. Same institution graduation rate maybe be a simple, standard measure that is easy to calculate, however this common sense indicator of how well an institution is serving its students has gained more attention in performance policies such as the GRAD Act.

More than one system had a Baseline that indicated negatives for the measure of change in baccalaureate completers. Increasing completers at all levels is a priority for the GRAD Act however, and aggressive benchmarks were set. The Southern System again outperformed the other systems in the study. Institutions in the Southern System increased their change in baccalaureate completers rate from a baseline of -2.5% to 8.3% in five years. This nearly matched the highest rate in the study, reported by the UL System at 9.1%. Overall the results seem to indicate the Southern System saw the biggest gains across the studied systems.

Research Question 3

How do the selected performance indicators differ based on the Carnegie Classification of the individual institutions studied? The main effect of Carnegie classification did show a statistically significant difference in 1st to 3rd year retention rate and same institution graduation rate. However, Post Hoc testing by Carnegie classification was not possible in SPSS because more than one group had less than two cases.

The criteria and descriptions come from the Carnegie Classification 2010: Basic data set. The institutions that encompass the population of this study are comprised of five of the classification values as seen in Table 7, located in Chapter IV. Louisiana State University is the only very high research activity institution in the population. Similarly, Louisiana State University at Alexandria is the only baccalaureate arts and sciences institution. The majority of the study population consists of master's colleges and universities of medium to large size. The

lone baccalaureate arts and sciences institution saw the largest increase in the 1st to 3rd year retention rate going from 31.3% to 38.5% during the study period. Similarly, the one Carnegie classification institution considered very high research activity saw the best increase in same institution graduation rate during the study period.

Research Question 4

How do the selected performance indicators differ between the institutions studied based upon region, enrollment, and institutional type? A clear response to this question proved to be difficult. Analysis was impeded by the nature of how it was posed. Research Question 4 is different from Research Questions 2 and 3 due to the nature of how the question is stated. It combines several group designations together in one question, unlike the questions that precede it. When asking, "how do the selected performance indicators differ between the institutions studied based upon region, enrollment, and institutional type," three separate groups are identified in the same question. This is due to several assumptions about the data. Prior to the start of the analysis, it was known to the researcher that the state has only one flagship institution. It was also known that no HBCU was the Flagship. Also, all institutions in the study are four-year institutions even if they are the Flagship or an HBCU.

No statistically significant changes were identified in the selected performance indicators by institutional region of the state due to the nature of the data. By location, the Southeast area of the state had the greatest increase in average change in baccalaureate completers, increasing by almost 20% by the end of the study period. Regionally the Capital area and the Northeast area saw steep declines in 1st to 2nd year retention rate in the study period. The Florida Parish area had the steepest decline in marginal means of 1st to 2nd year retention rate, dropping more than 5% in the study period. The Southeast area of the state reported the lowest rates in both 1st

to 3rd year retention and same institution graduation rate over the study period. The Capital area reported the highest mean same institution graduation rate. Statistical analysis of institutions by region using a mixed ANOVA was inconclusive due to the nature of the data; far too many of the regions had fewer than two cases to analyze properly using SPSS and the chosen statistical methods. The cases were artificially spread among the identified regions of the map utilized in identifying areas of the state as indicated in Chapter I (see Table 5).

Enrollment category size analysis was not possible with a mixed ANOVA for 1st to 2nd year retention rate, 1st to 3rd year retention rate, and same institutions graduate as the variables did not present equal variances, as assessed by Levene's test of homogeneity of variance, and therefore further analysis of these variables by mixed ANOVA in SPSS was not possible. Additional analysis did indicate that there was no statistically significant difference in change in baccalaureate completers between the institutional sizes.

Four institutional enrollment size categories were indicated as shown Table 7, located in Chapter IV. One category size, 20,000 and above, consisted of a single institution, Louisiana State University. The majority of the study population was comprised of institutions in the 5,000 - 9,999 size range. The smallest enrollment size category of 1,000 – 4, 999 in this study consisted of Southern University New Orleans, Louisiana State University at Alexandria and Louisiana State University in Shreveport.

When examining the groups by institutional type, results showed that statistically significant differences were identified in 1st to 2nd year retention rate and same institution graduation rate between the types. However, Post Hoc analysis of institutions by region using a mixed ANOVA was inconclusive due to the nature of the data; more than one enrollment size

category had fewer than two cases to analyze properly. This presented too few cases to examine using the chosen statistical methods in SPSS

The majority of the study population was comprised of four-year type institutions. Only two were identified as HBCUs, while a singular institution, Louisiana State University was categorized as the flagship. HBCUs as a group had the largest mean increase in the variable of change in baccalaureate completers. The flagship experienced a decrease in both 1st to 2nd year retention and 1st to 3rd year retention during the study period. However in same institution graduation rate, the flagship outperformed other institutional types in the five years of the GRAD Act studied.

Research Question 5

What changes to state funding levels have institutions experienced since the implementation of the GRAD Act? In the first year of GRAD Act, appropriations to institutions across the study population saw only a relatively slight decrease from the previous year going from approximately $704 million 2010 to $693 million in 2011. However, the downward trend in state appropriations to these institutions both continued and accelerated after that year. Between 2010 and 2014, total appropriations for the study population decreased from approximately $704 million to just over $528 million. This represents a more than 25% decrease since the passage of the GRAD Act.

Rather than receiving increased funding for better performance, institutions in the study population found themselves increasing tuition to offset lost state funding. This occurred even though targets and benchmarks were met in spite of the reduced resources. The period prior to the beginning of the GRAD Act saw increased state funding with Louisiana finally reaching the Southern Region Education Board (SREB) average for Full-Time Equivalent (FTE) funding in

2008. Some of this sudden increase in funds was due to effects from post-Katrina recovery funds and federal stimulus dollars intended to combat the global economic downturn in 2008. Beginning in 2009 state appropriations to all institutions across the study population have steadily declined each year. Louisiana State University received the most appropriations from the state in the study period, accepting more than a third of total appropriations of the study population in a given year. The flagship institution was not immune from the overall reductions and saw their appropriates reduced from $271.3 million in 2010 to $220.5 million in 2014. This represented a near 19% reduction from 2010 to 2014. Between the year the GRAD Act was passed and 2014, all institutions in the study had their state allocations reduced. However these reductions were far more drastic for some than others. Southeastern Louisiana University experienced a more dramatic decrease in state appropriations than any other institution in the study, going from approximately $53.5 million to $32.7 million in just four years. This was a near 39% reduction in the institution's state appropriations. The recipient of the least amount of state appropriations, Louisiana State University at Alexandria went from an appropriation of $8.2 million in 2010 to a total state appropriation of just over $5.8 million for the institution in 2014. This meant LSU-A received nearly 29% less funds by the end of the study period than they had received in 2010. Southern University A&M was the least affected institution in the study group, experiencing a comparatively modest 13% reduction in their appropriations since the passage of the GRAD Act, going from $41.8 million in 2010 to $36.2 million in 2014. On average across the study population, an institution underwent a 28% reduction in their individual state apportions from after the passage of the GRAD Act.

Research Question 6

What is the relationship, if any, between funding and performance indicators? In answering Research Question 6, correlation testing showed state appropriations had a strong negative correlation to both same institution graduation rate and baccalaureate completers during the study period. This is not all that surprising considering prior analysis indicated that state appropriations have declined for the majority of the study period, and do to the requirements of the GRAD Act, the selected performance indicators were required to increase. As the level of appropriations went down at each institution, the majority of the study population was able to maintain or increase the indicated student success measures in the study period. While the results to this question do indicate a negative correlation, it is important to remember this does not imply causation.

Research Question 7

How have institutional tuition rates changed since the implementation of the GRAD Act? In the years since the passage of the GRAD Act, mandatory tuition and fees increased significantly at all institutions in the study. In 2010, the mean tuition and mandatory fees for the institutions in the study was $4,438. By 2015 the cost had grown to $7,499, an increase of nearly 69% since the passage of the Act. Southern University at New Orleans has retained the lowest level of tuition cost in the study population with at cost in 2010 of $3,508, which increased to $5,899 by 2015. This represented an overall increase of more than 68%. The highest cost institution in the study population was Louisiana State University A&M which cost $5,731 in 2010 and also increased by nearly 69% to $9,660 in 2015. Although increases in tuition did not begin with the implementation of the GRAD Act, it is reasonable to conclude that Louisiana institutions of higher education have experienced some of the largest tuition increases since the

passage of the Act. The University of Louisiana at Lafayette has increased its mandatory tuition and fees more than any other institution in the study population to a total of $8,244 in 2015, a more than 86% increase over 2010 cost. Grambling State University represents the institution to have increased cost by the least amount with only a 59.5% increase in tuition and mandatory fees since the passage of the GRAD Act. Tuition authorities provided to institutions for good performance in GRAD Act measures however, have not offset the decrease in state appropriations to individual institutions.

Conclusions

Based on the above analysis of the findings, a number of conclusions can be drawn from this study.

Conclusion One

The GRAD Act is a true performance funding policy. In 2011, the Board of Regents indicated that a full 15% of state funding would be tied to success metrics in retention, graduation, and number of completers. Meeting benchmarks would also grant tuition authority of up to a 10% increase in the cost of tuition. In total, nearly 25% of an institution's funding was contingent on meeting certain performance measures. A significant and complex level of reporting was also an integral part of the funding matrix. No actual additional funding incentive was provided to the institutions across the study population. The funding policy did not provide for additional funds or other revenues above some set amount. Rather in the case of the GRAD Act, institutions sought to meet the requirements to receive both the state funding allocation as well as have the ability to increase tuition up to a certain amount. Even when achieving the targets contained in the GRAD Act, institutions in this study did not see gains, but simply

minimized potential losses as the remaining portion of the state allocation has been reduced year-over-year.

In Chapter I, Jakiel's view of "understanding the LA GRAD Act's orientation as a performance policy may help leaders of postsecondary institutions anticipate future policy directions and prepare for policy changes that will affect their institutions" was introduced (Jakiel, 2011, p. 2). As one of the few researchers to study the GRAD Act, Jakiel positioned the GRAD Act as performance budgeting, indicating there was discretion that outcomes were to be part of the consideration for funding but allowed for individual circumstances. The tight and direct alignment of funding to 15% of the state funding formula, and the possibility institutional control of 10% tuition authority, was actually directly tied to set benchmarks and targets after 2011. This indicates that the GRAD Act, while it may have begun with "agreements" and "incentives" of increased tuition autonomy, was actually applied as a performance funding policy as other state funding declined significantly. By all measures the GRAD Act fits the performance funding model described as connecting "state funding directly and tightly to institutional performance on individual indicators" (Dougherty & Reddy, 2013, p. 5). Although the intent may have been to serve as a mechanism to incentivize institutions, the reality of its application was not in agreement with its design. The Board of Regents indicated "in many of the years during the six-year agreement, tuition authority did not result in any increased revenues to the institution, due to a corresponding reduction in state funding" (Louisiana Board of Regents, 2015a). In actually, an institution could therefore actually lose additional funding by increasing tuition, nullifying any benefits of the new tuition authority granted by meeting the requirements of the GRAD Act.

Conclusion Two

The GRAD Act did increase awareness and reporting accuracy of the metrics used. Initial data collection for this study discovered that accurate data collection and reporting was a major issue for GRAD Act measures. An examination of reports issued in Years 1 and 2, and those containing data from Years 1 and 2 in subsequent reports, reveal inconsistences in some reported areas for several institutions in the study. The Board of Regents explains this as updates to inaccurately reported numbers after institutional corrections were applied. A number of exceptions and data updates were made to information maintained by the BoR during the last five years. Southern University at New Orleans and the University of New Orleans both received an exemption for the reporting of several metrics during the reporting years of 2005 and 2006. This impacted both IPEDS and the Board of Regents Statewide Student Profile System required data. This then impacted their reporting metrics for the GRAD Act several years later, as well as how some benchmarks and targets were calculated. The 1st to 3rd Year Retention Rate was one of the GRAD Act indicators that although reported by each institution in reporting Years 1-5, it was not a routinely reported metric to the Board of Regents before the implementation of the Act. While individual institutions or other state and federal entities may have reported this variable before the GRAD Act, the Board of Regents has not maintained an institutional a database for this metric.

This study also revealed that including updates to data, some benchmarks and targets, as well as at least one institutional characteristic, changed during the course of the five years of the GRAD Act to date. After failing to meet benchmarks and targets in Year 4, Southern University A&M was the only institution across the study population to fail the requirements of GRAD Act performance measures. The institution underwent a remediation process with the Board of

Regents and other state officials. While the process was aimed at ensuring the institution could retain funding and realign processes to meet GRAD Act objectives, it also ultimately resulted in the institution renegotiating the targets it was to meet in GRAD Act Years 5 and 6. Rabovsky (2012) indicated that performance accountability methods make it easier for policy makers and the public to evaluate public institutions' outputs and impose restrictions or corrective action if the desired results are not received.

In addition to that change, the University of New Orleans also experienced fundamental change in its organizational structure after the start of the GRAD Act. In the 2011 Louisiana Regular Legislative Session, Act 419 moved UNO from the management of the LSU System to the UL System. For purposes of analysis in both cases the Year 5 data was retained for the examination of data, as it was the most accurate at the time the study began. Statistical analysis undertaken for this study used GRAD Act data from Year 5 as it was determined to be the most accurate. This data was combined with other "on the shelf" tracked data from the Board of Regents, and the most currently available data downloaded from IPEDS, for the study's analysis.

Conclusion Three

Institutional funding underwent immediate changes. The precipitous drop in state appropriations coincided with the passage of the GRAD Act in 2010. As reporting requirements and the new state higher education funding formula were implemented, state funding to institutions declined at an incredible rate. The data largely revealed overall significant decreases in state allocations and continuously larger increases in tuition and mandatory fees. This is consistent with evidence in the literature. Dougherty and Reddy (2013) indicated that "changes in institutional funding are typically the main policy instrument that policy makers have in mind

when they consider performance funding and are indeed the most frequently mentioned immediate impact on colleges and universities" (p. 35).

After the implementation of the GRAD Act, the mean rate of revenues from tuition and fees per FTE exceeded those from state appropriations in the study population for the first time in the study period. Although the state had traditionally appropriated more funds to institutions per FTE, after 2012 revenue from tuition and fess made up an increasingly larger amount of funds to an institution. The GRAD Act allowed a 10% increase each year an institution met the requirements of the Act. Even with these increased costs to the individual student, the additional revenue from higher tuition has not offset the sharp decline in state appropriations at any of the institutions across the study population. Consistent with Resource Dependence Theory (Pfeffer & Salancik, 2003), the institutions in the study were reliant on external resources and attempted to meet the required goals in order to obtain financial resources.

The Board of Regents indicated the difficult position institutions found themselves facing fiscally, even when passing the requirements of the GRAD Act, in a recent report to the state legislature. "Instead of being deemed ineligible for additional performance funding by failing GRAD Act, institutions stood to lose state general funds. Failing institutions were asked to improve performance with even less state support, while institutions that passed the GRAD Act saw no additional benefits through the funding formula" (Louisiana Board of Regents, 2015a, p. 4).

This fiscal decline impacted not only the institutions, but also the implementation of the GRAD Act itself. The BoR also indicated that the declines to state funding and the resulting difficulties that resulted did not allow for the GRAD Act to be implemented as originally intended. Future higher education policy must take into account not just desired goals in

incentivizing institutions, but also how funding shortfalls could impact the ability of the state to meet the levels of funding required to efficiently and effectively fund the institutions in addition to meeting stated goals.

Conclusion Four

The GRAD Act is overly complex. McKeown-Moak (2013) indicated that one of the guiding principles in establishing institutional performance indicators should be simplicity and also recommended a limited number of indicators be utilized. With more than 50 possible indicators to choose from, 23 different measures reported on, 6 common measures used across all institutions, and only 4 measures reported by all institutions from the start of the GRAD Act, the policy's reporting metrics have continually evolved and changed. Only a handful of measures provided an as-similar basis upon which to make comparisons amongst institutions.

Although several institutions missed their initial set benchmarks by a few percentage points, the Board of Regents allowed some margin of error. Often institutions were given credit in a number of ways: a 2% margin of error for reporting metrics, for significant progress towards benchmarks, improvements averaged over several years, or amended results going back years to correct data that were due to simple reporting issues.

As indicated in Chapter II, one major purpose that states have in regulating data collection, and the reporting from individual institutions, is to increase consistency and commonality throughout state systems in reporting benchmark data (McKeown-Moak, 2013; Powell et al., 2012). While the GRAD Act has helped to bring awareness and appreciation of data collection, few metrics were actually applied to all institutions. Some metrics that were reported by a majority of the population were met at 100% for all institutions in the study, which questions the value of choosing a measure that all institutions meet at all times. In addition, the

struggles at the campus level in wrestling with continuous budget cuts made it more difficult to meet the requirements of the Act. "Institutions failing to achieve annual GRAD Act requirements did not merely lose out on a reward; they were, in essence, penalized. Thus, the penalties for failing the GRAD Act were steep, while the rewards for passing were non-existent" (Louisiana Board of Regents, 2015a, p. 5). Although state funding decreased during the study period, many institutions increased a number of student success metrics. While a negative correlation between funding and some metrics does exist, the changes in one do not explain the changes in the other, and does not imply causality. A simpler method of reporting measures which incorporates not only a plethora of outputs, but instead focuses on costs, student success measures, and common institutional performance measures with a limited number of indicators should be considered for future policy.

Further Research

Incorporating the findings and conclusions presented above, a clear need for additional quantitative study exists, and the following recommendations are made for possible further research:

While some of these findings are consistent with other performance funding outcomes, more robust statistical analysis of available data is warranted. Year 6 results of the GRAD Act annual reports will add to the breadth and depth of the exploration of the issue. A future study should replicate several of the research questions of the current study after additional time has passed. Capturing quantitative data from the time period encompassing the entire lifecycle of the GRAD Act will enable a complete analysis of its impact on student success outcomes and funding levels. Changes to funding and outcomes after the conclusion of the Act will clarify the actual impact it held as a fiscal policy.

Additionally, extensive qualitative research in the form of case study, document analysis, and mixed methods could yield answers about the change in Louisiana higher education due to the GRAD Act that is not possible in quantitative evaluation. A future qualitative study on the GRAD Act should focus on the extensive narrative reports detailing institutional level accomplishments and issues that are also provided as part of the GRAD Act annual reports (Louisiana Board of Regents, 2015b). These qualitative reports provide context to the quantitative aspects of the performance indicators. Narratives also explain progress on other requirements such as developing partnerships with high schools and community colleges, eliminating low completer or misaligned programs of study, increasing the use of technology, and reducing remedial education. These yearly narratives are important to understanding the phenomena completely and should undergo extensive document analysis.

An additional future study on the GRAD Act should explore its creation and manner in which the final Act was arrived at. The origins of, and the negotiations leading to, the establishment of the baselines, benchmarks, targets, and measures would be highly beneficial to understanding political, local, and institutional beliefs and assumptions in regards to performance funding. An analysis of documents produced in the time period, as well as extensive interviews and surveying of the involved stakeholders, would provide a unique and informative set of insights in to the evolution of both educational and political fiscal policy. Coupled with a qualitative examination of prior and current funding formulas, and state expenditures, would allow for a deeper understanding of Louisiana higher educational policy and politics. Further study could then include interviews with legislators about the intentions of the act and whether they were met. Mixed methods research may therefore provide the best comprehensive results for examination of many facets of this phenomenon.

A future study should examine the data collection process that has become the core of performance funding policies. A substantial increase in data collection and reporting has occurred since Year 1 in order to satisfy the reporting requirements of the GRAD Act. Like the policy itself, this accounting system is largely new to Louisiana, and has not been studied extensively. Cost, effectiveness, and homogeneity of data from this new system should also be studied in Louisiana. As data collection brought awareness to the outcomes themselves, a future study could attempt analysis of the data collection system, perhaps highlighting methods, costs, accuracy in accountability, and changes to institutional structure and manpower needed to support such data collection and reporting on an ongoing basis. Differences in the approaches at individual institutions could be explored in case study to provide a more detailed examination of the phenomenon. If data collection and reporting is to become the routine and continuously adjusted component of higher education accountability in Louisiana, additional knowledge of the actual mechanics of that data collection could serve both institutions and the state well.

The impacts of continuously increasing tuition should be the focus of a future study across the institutions of the current study. This study has shown that a significant amount of the cost of attendance has shifted from the state to the individual; little however, has been examined on what effects this has had on enrollment, educational outcomes, or how it is influenced by amount, financial aid, or socioeconomic backgrounds of students. A future study should investigate changes in state enrollment levels based on higher education funding policy, as well as how such policy alters the landscape for lower income students, as well as commonly tracked educational outcomes. Federal Pell support often impacts any sensitivity to tuition fluctuation. The population's mean percent of undergraduate students receiving Pell grants increased from 34% in 2008 to 39% in 2009. It has since settled at a mean rate of 40% – 42% for the population

in the last three reporting years. In 2010 the level of the maximum Pell grant was $6,065 when the study population's average tuition was $4,438. By 2015 the average tuition cost of the study population had risen to $7,499, and the maximum allowable Pell grant was $5,730. How Pell eligibility impacts the measures contained in the GRAD Act would be important to expanding understanding of the phenomena. Louisiana also has a significant additional form of state student support that comprises part of the state budget for higher education and may affect tuition, funding, and educational outcomes. The Taylor Opportunity Program for Students (TOPS) has existed in one form or another since 1989, providing for state-funded, merit-based college tuition scholarships. What relationships TOPS may have to tuition, funding, enrollment levels, and educational outcomes in the GRAD Act are areas important to further research.

Finally, with such an emphasis on increasing retention, graduation, and number of completers, questions may arise as to how well institutions are meeting the rigor required of matriculating so many students. A future study may look at the quality of completers as institutions meet the requirements of performance funding policies. Do institutional changes required in order to meet immediate, intermediate, and ultimate outcomes impact the rigor and quality of the curriculum or instruction at any Louisiana institutions? This possible future research could also aid in identifying additional unintended outcomes to performance funding.

Implications and Recommendations for Policy and Practice

As indicated in the literature, there are very few studies of the GRAD Act. It is outside of the scope of this study to make recommendations about continuing or discontinuing the provisions of the GRAD Act. This study was concerned with the changes the Act may have effected after its implementation and if institutions had met their established goals and

benchmarks. However, based on the findings of this study, the researcher makes the following recommendations for police and practice in Louisiana:

Recommendation One

The Board of Regents should require all management boards and institutions to organize and operate similar reporting methodologies, personnel structure and practices at all institutions. It was evident during data collection that a statewide effort at reporting the same data, in the same manner, had brought new attention and sensitivity to data collection and accuracy. This in and of itself may have had a positive outcome. As Dougherty and Reddy (2013) indicated, awareness of performance data may compel improvements at an institutional level. It also provided the individual institutions with a more structured and regular manner in which to report important metrics to both the Board of Regents and the public.

Though a more common data set and a better understanding of what comprises that data occurred in Louisiana after the implementation of the GRAD Act, little organized effort was made to standardize the structural and reporting operations at the institutional level. If increasingly larger amounts of funding will rely on reported metrics, the individual institutions should have a guide on how to operationally accomplish the gathering, analysis, and reporting of data. Although the GRAD Act made great strides in bringing such organization to Louisiana higher education, a concerted effort to bring all operational, personnel, and procedure areas into a common alignment would benefit the entire state. Future study regarding the creation of a guiding policy for individual institutions to follow should therefore be undertaken. The Board of Regents, as the overseeing body reporting to the legislature, is in the unique position to implement such a policy, which will effect, and instruct, all institutions of higher education within the state. Doing so would minimize variation and error, allow for the sharing of

information, and provide a common structure for all to operate in, leading to additional efficiencies and effectiveness in the collection and use of important metrics.

Recommendation Two

Future policy should include not only ultimate outcomes, but also instructions in best practices in reaching those outcomes. Although the GRAD Act had clearly defined outcomes, to increase same institution graduation rate to a certain target level for instance, little to no instruction was given to institutions on how to actually meet these targets. The GRAD Act had set targets to reach over a six-year period. Guidance was given in the form of yearly benchmarks to meet in striving for the targeted outcome level. However, no direct intervention, instruction, or campus level changes were provided to institutions. It was not until an institution failed to meet requirements of the Act that direct intervention and procedural changes were made. Outside oversight was given to an institution at a distance until the problem caused benchmarks to be missed.

A more proactive approach should be undertaken in future performance funding policy. For example if increasing the 1st to 2nd year retention rate is a desired outcome, programs, policies, and activities proven to assist freshman student should be made part of the implementation of the fiscal policy. Without guidance on intermediate steps, the Board of Regents and other state higher education officials will only be able to provide corrective action after an institution fails to meet some predetermined performance indicator. Dougherty and Reddy (2011) indicated that intermediate results involving modifications of institutional policies, programs, and practices such as changes in instruction and student support services should be well articulated and planned for in the implementation of performance funding policy to be most effective. Policymakers would do well to include immediate and intermediate instructions and

steps in future policy in order to ensure the state consistently achieves the ultimate goals set forth in the policy.

Recommendation Three

Individual institutions should communicate their results more publicly. The findings of this study also have the potential to provide evidence to critics of higher education policy as to the quality and efficiency of the institutions involved both previous to and following a shift in funding policy. Public confidence may therefore be influenced by the utility of the indicators in the Act and their outcomes on both institutional and state levels. The results of the study support the view of Carey and Aldeman (2008) who found that in difficult state funding environments higher education must realize that in order to make the case for more public funding, they'll have to provide more information and accountability in return.

Public institutions of higher education have increasingly faced calls for more transparency, accountability, and value. With an increase in reliable, available, and commonly used metrics, individual institutions could answer the calls of their stakeholders for more accountability and information. Communicating the outcomes of annual reporting publicly and routinely, would serve to not only bolster public confidence, but also provide a consistent basis for the comparison of institutions across the state. Trends, issues, and areas for desired change could then quickly and easily be identified by higher educations leaders, policymakers, and the public in a reliable and common fashion. The sharing of information would therefore aid in accountability at all levels of higher education.

Final Thoughts

Results of the student success measures contained in the GRAD Act show generally positive improvements over baseline for the population studied. All but a single institution in the population met all yearly performance objectives contained within the Act. Although the Act has many requirements, it also proved to be flexible and still goal orientated. The case of Southern University A&M failing to meet requirements in Year 4 indicated how benchmarks in the Act alerted state policymakers for the need of institutional changes based on input and actual outcomes.

At the conclusion of this study, the future of the GRAD Act is uncertain. Legislators and educational leaders will present Year 6 findings in June of 2016. To date, the GRAD Act could be considered successful. An increase in this study population's mean retention rates, graduation rates, and number of completers at the baccalaureate level has occurred. As the data indicated however, not all of these changes were statistically significant, even those that met the benchmarks set in the GRAD Act.

Policy makers largely described the GRAD Act as an instrument to incentivize institutions to increase the outcomes in the desired performance areas contained in the Act. This researcher agrees with Rabovsky (2012) who acknowledged that it may be possible that most universities already have incentive to ensure the best student outcomes they can without the need for performance funding policies. The institutions in the study population were able to meet most of their benchmark targets even during a period of decreased state appropriations. In his work, Rabovsky (2012) argues that institutions may need additional resources in order to meet the demands of better outcomes. The research conducted in this paper's study could have been

conducted not as study of the GRAD Act, so much as it could have been a study of how institutions met outcome goals after a loss of state appropriations.

Louisiana's institutions of higher education now find themselves facing both an uncertain future as far as the GRAD Act, and some of the most challenging years of budget crises they have encountered. Act 462 of the 2014 legislative session directed the Board of Regents to develop an out-comes based funding formula and make for necessary changes to the GRAD Act in order to do so (Louisiana Board of Regents, 2015f). Act 359 of the 2015 legislative session eliminated possible campus autonomies (the operational incentives in the original GRAD Act) by removing outcomes of the GRAD Act as the determining factor in being eligible to receive the autonomies (Louisiana Board of Regents, 2015b). The new legislation made the eligibility for these autonomies now dependent on an institution receiving a "clean" financial audit by the state. Recently, the BoR made a series of recommendations that include among other items, not renewing the GRAD Act agreements with institutions and encouraging the legislature that the GRAD Act law itself to be repealed (Louisiana Board of Regents, 2015f). The Board of Regents has also concluded that a methodology that more appropriately considers both cost and performance should be used in funding higher education. By FY2016 the state of Louisiana was facing fiscal shortfalls totaling nearly $700 million. Some projections placed budget state budget shortfalls for FY2017 at nearly $1.9 billion. As indicated early in this study, these deficits will most likely be disproportionally shouldered by cuts to higher education in Louisiana.

This research agrees with the Board of Regents recent recommendations and underscores the assessment that declines in state funding may have prevented the GRAD Act from being implemented as intended. No true incentives were ever granted to institutions, even though benchmarks and targets were largely met. Without the incentives or autonomies, the GRAD Act

provides for no additional funding, and only negative consequences for institutions which fail to meet targets. Ultimately, this study concludes that although goals on student success measures and accountability may have been met, more effective funding mechanisms might serve the state and the institutions in the study population with a clearer system of incentives and improved performance expectations. Analysis of the student success measures outcomes, funding declines, and tuition increases in this study provided for mixed results that presented little evidence to support the idea that performance funding has been an effective higher education policy in Louisiana. While the GRAD Act may have been an important mechanism to report and measure institutional outcomes, declines in state appropriations and increasing tuition costs complicate the examination of its success or failure. It is likely that continuing changes to both the political and economic environment of the state will persist in altering the funding methodology in Louisiana higher education. To best serve institutions, practitioners, and most importantly students, legislators should study the limitations, advantages, and disadvantages of using the budget to influence the meeting of state goals for higher education. Policy that allows for differences in institutional mission, focuses on both outcome and performance measures, commits a stable base of funding with possible increased incentives, aligns measures with both institutional as well as state goals, and has built in evaluation and adjustment procedures will require the engagement of stakeholders at all levels, but will ultimately be necessary to ensure a strong future for all institutions of higher education across the study population.

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APPENDICES

Appendix A

Institutional Mission Statements and Classification Data

Louisiana State University and A&M College

As the flagship institution of the state, the vision of Louisiana State University is to be a leading research-extensive university, challenging undergraduate and graduate students to achieve the highest levels of intellectual and personal development. Designated as a land-, sea-, and space-grant institution, the mission of Louisiana State University is the generation, preservation, dissemination, and application of knowledge and cultivation of the arts. In implementing its mission, LSU is committed to: offer a broad array of undergraduate degree programs and extensive graduate research opportunities designed to attract and educate highly qualified undergraduate and graduate students; employ faculty who are excellent teacher-scholars, nationally competitive in research and creative activities, and who contribute to a world-class knowledge base that is transferable to educational, professional, cultural, and economic enterprises; and use its extensive resources to solve economic, environmental, and social challenges (Louisiana State University, 2015).

LSU is categorized as the states sole SREB Four-Year I institution, as Louisiana's only Carnegie Doctoral/Research Extensive University, and as a COC/SACS Level VI institution. The university maintains the most rigorous undergraduate admissions requirements in Louisiana's public system of postsecondary education. The majority of the enrollment at LSU is upper division undergraduate students and graduate students. The university offers a wide array of doctoral programs and a broad range of research programs with extensive grant and contract activities. (Carnegie Classification of Institutions of Higher Education, 2015; Louisiana

Postsecondary Education Review Commission, 2010; Southern Association of Colleges and Schools / Commision on Colleges, 2015; Southern Regional Education Board, 2015).

LSU-Alexandria

As the only state-supported undergraduate university in Louisiana, LSUA's mission is to provide a broad spectrum of affordable undergraduate degrees in a robust academic environment that challenges students to excel and creates proactive and reciprocal relationships that meet the needs of the diverse student body and community that it serves (LSU-A, 2015).

LSUA is categorized as a SREB Four-Year with Bachelor's institution, as a Carnegie Associate's Dominant, and as a COC/SACS Level II institution. The institution awards specialized certificates and associate and baccalaureate degrees (Carnegie Classification of Institutions of Higher Education, 2015; Louisiana Postsecondary Education Review Commission, 2010; Southern Association of Colleges and Schools / Commision on Colleges, 2015; Southern Regional Education Board, 2015).

LSU-Shreveport

Louisiana State University in Shreveport is the public senior university serving the Shreveport/Bossier Metropolitan area and the Ark-La-Tex. The mission of LSUS is to: Provide a stimulating and supportive learning environment in which students, faculty and staff participate freely in the creation, acquisition and dissemination of knowledge; Encourage an atmosphere of intellectual excitement; Foster the academic and personal growth of students; Produce graduates who possess the intellectual resources and professional and personal skills that will enable them to be effective and productive members of an ever-changing global community; and Enhance the cultural, technological, social and economic development of the region through outstanding teaching, research and public service (LSU-S, 2015).

LSUS is categorized as an SREB Four Year 4 institution, as a Carnegie Master's College and University I, and as a COG/SACS Level IV institution. The university offers a wide range of baccalaureate programs and master's level graduate degrees (Carnegie Classification of Institutions of Higher Education, 2015; Louisiana Postsecondary Education Review Commission, 2010; Southern Association of Colleges and Schools / Commision on Colleges, 2015; Southern Regional Education Board, 2015).

University of New Orleans

The University of New Orleans is a comprehensive urban research university committed to providing educational excellence to a diverse undergraduate and graduate student body. The University is one of the region's foremost public resources, offering a variety of world-class, research-based programs, advancing shared knowledge and adding to the region's industry, culture and economy. The University of New Orleans, as a global community asset, serves national and international students and enhances the quality of life in New Orleans, the state, the nation, and the world, by participating in a broad array of research, service learning, cultural and academic activities (University of New Orleans, 2015).

UNO is categorized as an SREB Four-Year 2 institution, as a Carnegie Doctoral/Research University-Intensive, and as a COC/SACS Level VI institution. UNO is committed to graduate education through the doctorate, and conducts research appropriate to the level of academic programs offered. Graduate study and research are integral to the university's purpose. Doctoral programs focus on fields of study in which UNO has the ability to achieve national competitiveness or to respond to specific state or regional needs (Carnegie Classification of Institutions of Higher Education, 2015; Louisiana Postsecondary Education Review

Commission, 2010; Southern Association of Colleges and Schools / Commision on Colleges, 2015; Southern Regional Education Board, 2015).

Southern University and A&M College

The mission of Southern University and A&M College, an Historically Black, 1890 land-grant institution, is to provide opportunities for a diverse student population to achieve a high-quality, global educational experience, to engage in scholarly, research, and creative activities, and to give meaningful public service to the community, the state, the nation, and the world so that Southern University graduates are competent, informed, and productive citizens (Southern University, 2015).

Southern University and A&M College is categorized as an SREB Four-Year 3 institution, as a Carnegie Master's College and University I, and as a COG/SACS Level V institution. The University's mission encompasses graduate and professional training and it conducts research appropriate to academic programs offered (Carnegie Classification of Institutions of Higher Education, 2015; Louisiana Postsecondary Education Review Commission, 2010; Southern Association of Colleges and Schools / Commision on Colleges, 2015; Southern Regional Education Board, 2015).

Southern University at New Orleans

Southern University at New Orleans primarily serves the educational and cultural needs of the Greater New Orleans metropolitan area. As a public, historically black university, SUNO creates and maintains an environment conducive to learning and growth as well as promotes the upward mobility of a diverse population of both traditional and nontraditional students through quality academic programs and service to achieve excellence in higher education (Southern University at New Orleans, 2015).

SUNO is categorized as an SREB Four-Year 5 institution, as a Carnegie Master's College and University I, and as a COG/SACS Level III institution. The university offers a wide range of baccalaureate programs and is committed to graduate education to meet regional or state needs through the master's degree (Carnegie Classification of Institutions of Higher Education, 2015; Louisiana Postsecondary Education Review Commission, 2010; Southern Association of Colleges and Schools / Commision on Colleges, 2015; Southern Regional Education Board, 2015).

Grambling State University

Grambling State University is a comprehensive, historically black, public institution that offers a broad spectrum of undergraduate and graduate programs of study. Through its undergraduate major courses of study, which are under girded by a traditional liberal arts program, and through its graduate school, which has a decidedly professional focus, the University embraces its founding principle of educational opportunity. With a commitment to the education of minorities in American society, the University seeks to reflect in all of its programs the diversity present in the world. The university advances the study and preservation of African American history, art and culture. Grambling State University is a community of learners who strive for excellence in their pursuit of knowledge and who seek to contribute to their respective major academic disciplines. The University prepares its graduates to compete and succeed in careers related to its programs of study, to contribute to the advancement of knowledge, and to lead productive lives as informed citizens in a democratic society. The University provides its students a living and learning environment, which nurtures their development for leadership in academics, athletics, campus governance, and in their future pursuits. The University affords each student the opportunity to pursue any program of study

provided that the student makes reasonable progress and demonstrates that progress in standard ways. Grambling fosters, in its students, a commitment to service and to the improvement in the quality of life for all persons. The University expects that all persons who matriculate and who are employed at Grambling will reflect through their study and work that the University is indeed a place where all persons are valued, "where everybody is somebody" (Grambling State University, 2015).

Grambling is categorized as an SREB Four-Year 4 institution, as a Carnegie Master's College and University (medium programs), and as a COC/SACS Level V institution. The University offers undergraduate and graduate programs that address state and national educational needs (Carnegie Classification of Institutions of Higher Education, 2015; Louisiana Postsecondary Education Review Commission, 2010; Southern Association of Colleges and Schools / Commision on Colleges, 2015; Southern Regional Education Board, 2015).

Louisiana Tech University

As a selective-admissions, comprehensive public university, Louisiana Tech is committed to quality in teaching, research, creative activity, public service, and workforce/economic development. Louisiana Tech maintains as its highest priority the education and development of its students in a challenging, yet safe and supportive, diverse community of learners (Louisiana Tech University, 2015).

Louisiana Tech is categorized as an SREB Four-Year 2 institution, as a Carnegie Doctoral/Research University, and as a COC/SACS Level VI institution Louisiana Tech views graduate study and research as integral to the university's purpose. Committed to graduate education through the doctorate, it conducts research appropriate to the level of academic programs offered and has a defined ratio of undergraduate to graduate enrollment. Doctoral

programs focus on fields of study in which the University has the ability to achieve national competitiveness or to respond to specific state or regional needs (Carnegie Classification of Institutions of Higher Education, 2015; Louisiana Postsecondary Education Review Commission, 2010; Southern Association of Colleges and Schools / Commision on Colleges, 2015; Southern Regional Education Board, 2015).

McNeese State University

McNeese State University is primarily a teaching institution whose mission is successful education of the undergraduate and graduate students and services to the employers and communities in the southwest Louisiana region. McNeese uses a traditional admissions process based on courses completed, GPA, and standardized test scores. All academic programs at McNeese State University emphasize in-depth disciplinary knowledge and its application to academic and professional environments. McNeese graduates achieve success through the studied acquisition of content knowledge, the demonstration of discipline-specific skills and dispositions as well as mastery of general education competencies such as critical thinking, effective communication, and independent learning (McNeese State University, 2015).

McNeese is categorized as an SREB Four-Year 4 institution, as a Carnegie Master's College and University (larger programs), and as a COC/SACS Level IV institution. The university offers a wide range of baccalaureate programs and master's level graduate degrees and conducts research appropriate to the level of academic programs offered (Carnegie Classification of Institutions of Higher Education, 2015; Louisiana Postsecondary Education Review Commission, 2010; Southern Association of Colleges and Schools / Commision on Colleges, 2015; Southern Regional Education Board, 2015).

Nicholls State University

Nicholls State University is a student-centered regional institution dedicated to the education of a diverse student body in a culturally rich and engaging learning environment through quality teaching, research, and service. Nicholls supports the educational, cultural, and economic needs of its service region and cultivates productive, responsible, and engaged citizens (Nicholls State University, 2015).

Nicholls is categorized as an SREB Four-Year 4 institution, as a Carnegie Master's College and University (medium programs), and as a COC/SACS Level IV institution. The University meets regional and state needs with a wide range of baccalaureate through master's and specialist level programs. It conducts research appropriate to the academic programs offered (Carnegie Classification of Institutions of Higher Education, 2015; Louisiana Postsecondary Education Review Commission, 2010; Southern Association of Colleges and Schools / Commision on Colleges, 2015; Southern Regional Education Board, 2015).

Northwestern State University of Louisiana

Northwestern State University is a responsive, student-oriented institution that is committed to the creation, dissemination, and acquisition of knowledge through teaching, research, and service. The University maintains as its highest priority excellence in teaching in graduate and undergraduate programs. Northwestern State University will prepare its students to become productive members of society and will promote economic development and improvements in the quality of life of the citizens in its region (Northwestern State University of Louisiana, 2015).

Northwestern is categorized as an SREB Four-Year 4 institution, as a Carnegie Master's College and University (larger programs), and as a COG/SACS Level V institution. It offers a

wide range of baccalaureate programs and is committed to graduate education through the master's and specialist degrees. The University conducts research appropriate to academic programs offered and necessary for program accreditation (Carnegie Classification of Institutions of Higher Education, 2015; Louisiana Postsecondary Education Review Commission, 2010; Southern Association of Colleges and Schools / Commision on Colleges, 2015; Southern Regional Education Board, 2015).

Southeastern Louisiana University

The mission of Southeastern Louisiana University is to lead the educational, economic and cultural development of southeast Louisiana (Southeastern Louisiana University, 2015).

Southeastern is categorized as an SREB Four-Year 3 institution, as a Carnegie Master's College and University (larger programs), and as a COC/SACS Level V institution. The University offers a wide range of baccalaureate and master's degree programs and appropriate doctoral programs to meet regional/state needs. It conducts research appropriate to academic programs offered and necessary for program accreditation (Carnegie Classification of Institutions of Higher Education, 2015; Louisiana Postsecondary Education Review Commission, 2010; Southern Association of Colleges and Schools / Commision on Colleges, 2015; Southern Regional Education Board, 2015).

University of Louisiana at Lafayette

The University of Louisiana at Lafayette, the largest member of the University of Louisiana System, is a public institution of higher education offering bachelors, master's, and doctoral degrees. Within the Carnegie classification, the University is designated as a Research University with High Research Activity. The University's academic programs are administered by the Colleges of the Arts, Education, Engineering, General Studies, Liberal Arts, Nursing and

Allied Health Professions, B. I. Moody III College of Business Administration, Ray P. Authement College of the Sciences, and the Graduate School. The University is dedicated to achieving excellence in undergraduate and graduate education, in research, and in public service. For undergraduate education, this commitment implies a fundamental subscription to general education, rooted in the primacy of the traditional liberal arts and sciences as the core around which all curricula are developed. The graduate programs seek to develop scholars who will variously advance knowledge, cultivate aesthetic sensibility, and improve the material conditions of humankind. The University reaffirms its historic commitment to diversity and integration. Thus, through instruction, research, and service, the University promotes regional economic and cultural development, explores solutions to national and world issues, and advances its reputation among its peers (University of Louisiana at Lafayette, 2015).

UL Lafayette is categorized as an SREB Four-Year 2 institution, as a Carnegie Research University (High Research Activity), and as a COC/SACS Level VI institution. It is committed to graduate education through the doctorate and conducts research appropriate to the level of academic programs offered. Graduate study and research are integral to the university's mission. Doctoral programs focus on fields of study in which UL Lafayette has the ability to achieve national competitiveness or to respond to specific state or regional needs (Carnegie Classification of Institutions of Higher Education, 2015; Louisiana Postsecondary Education Review Commission, 2010; Southern Association of Colleges and Schools / Commision on Colleges, 2015; Southern Regional Education Board, 2015).

University of Louisiana at Monroe

The University of Louisiana at Monroe seeks students who find value in our programs and prepares them to compete, succeed, and contribute in an ever-changing global society through a transformative education (University of Louisiana at Monroe, 2015).

UL Monroe is categorized as an SREB Four-Year 3 institution, as a Carnegie Master's College and University (larger programs), and as a COC/SACS Level VI institution. It offers a wide range of baccalaureate programs and is committed to graduate and professional education through the doctoral degree. The university conducts research appropriate to academic programs offered (Carnegie Classification of Institutions of Higher Education, 2015; Louisiana Postsecondary Education Review Commission, 2010; Southern Association of Colleges and Schools / Commision on Colleges, 2015; Southern Regional Education Board, 2015).

Appendix B

LA GRAD Act Reports

The Louisiana Granting Resources and Diplomas Act was approved by the legislature and signed into law by Governor Bobby Jindal in June 2010. As a result, the Board of Regents has entered into six-year performance agreements with each of the public higher education institutions in Louisiana. In their agreements each institution commits to meeting specific performance objectives in exchange for increased tuition authority and eligibility to participate in certain autonomies. "Regents monitors the performance of the institutions and submits an annual report highlighting progress made towards reaching the specified targets to the Legislature and the Governor no later than July 15th" of each year. "In addition, at any time, Regents may revoke an agreement for failure to abide by the terms" (Louisiana Board of Regents, 2015e).

Complete annual reports including all templates, narratives, and addendums are housed with the Board of Regents. The multipart reports are based upon templates provided to the individual institutions by the BoR. The following pages contain the "Attachment D" section of the "Year 5 Annual Report" for the 14 institutions that comprise the population of public four-year, comprehensive, non-specialized universities in Louisiana. Actual yearly data from these reports are presented and analyzed in Chapter IV and Appendix C.

Attachment D 4-year university, 2-year college, technical college Year 5 Annual Report

System: University of Louisiana System
Institution: Grambling State University
July 2015

GRAD Act Template for Reporting Annual Benchmarks and 6-Year Targets

Element Reference		Measure		Baseline Year/Term Data to include	Baseline data	Year 1 Benchmark	Year 1 Actual	Year 2 Benchmark	Year 2 Actual	Year 3 Benchmark	Year 3 Actual	Year 4 Benchmark	Year 4 Actual	Year 5 Benchmark	Year 5 Actual	Year 6 Target
1. Student Success																
a. *i. a.*	Targeted	1st to 2nd Year Retention Rate		Fall 08 to Fall 09	55.5%	54-58%	65.4%	56.0%	67.8%	57.0%	68.6%	58.0%	68.5%	59.0%	67.3%	62.0%
			Actual Baseline Data:	*# in Fall 08 Cohort*	1203		910		706		743		746		701	
				# retained to Fall 09	668		595		479		510		511		472	
ii.	Targeted	1st to 3rd Year Retention Rate		Fall 07 cohort	45.3%	46-50%	48.3%	48.5%	53.6%	49.0%	62.9%	49.5%	55.0%	50.0%	51.9%	52.0%
			Actual Baseline Data:	*# in Fall 07 Cohort*	1184		1203		910		706		743		746	
				# retained to Fall 09	536		581		488		444		409		387	
iv.	Targeted	Same Institution Graduation Rate		2008 Grad Rate Survey	36.3%	27.6-31.6%	30.0%	27.9%	28.0%	30.2%	28.0%	32.6%	31.0%	34.9%	32.0%	39.0%
			Actual Baseline Data:	*Fall revised cohort (total)*	851		1022		1111		1127		1119		1184	
				completers <=150% of time	309		304		311		313		347		375	
v.	Targeted	Graduation Productivity		2008-09 AY						0.121	0.156	0.122	0.171	0.126	0.177	0.13
			Actual Baseline Data:	*2008-09 undergrad FTE*							4448.3		4191.3		3879.3	
				2008-09 completers (undergrad)							692		718		685	
vi.	Targeted	Award Productivity		2008-09 AY	0.12	0.168	0.17	0.123	0.167	0.125	0.158	0.125	0.177	0.13	0.183	0.135
			Actual Baseline Data:	*2008-09 undergrad FTE*	4754		4440.6		4377.8		4448.3		4191.3		3879.3	
				awards (duplicated)	587		748		730		702		740		710	
b. *i.*	Targeted	Percent Change in program completers														
		Bachelors				28.3%	28.3%	0.4%	25.0%	1.0%	25.0%	2.0%	29.9%	3.0%	24.2%	5.5%
				2008-09 AY	541	694	694	543	676	546	676	552	703	557	672	571
		Masters				15.7%	15.7%	-16.0%	48.7%	-8.0%	71.3%	6.6%	96.5%	7.6%	117.4%	9.5%
				2008-09 AY	115	133	133	97	171	106	197	123	226	124	250	126
		Doctoral				-55.6%	-55.6%	-55.6%	-77.8%	-44.4%	-33.3%	-44.4%	-33.3%	-33.3%	-55.6%	-29.0%
				2008-09 AY	9	4	4	4	2	5	6	5	6	6	4	6
d. *i. b.*	Targeted	Passage rate on licensure exam in Education		2007-08 AY						98.0%	100.0%	98.0%	100.0%	98.0%	100.0%	98.0%
			Actual Baseline Data:	*# of students who took exam*							21		19		23	
				# of students that passed							21		19		23	
2. Articulation & Transfer																
a. *i.a.*	Targeted	1st to 2nd Year Retention Rate of Transfer Students		2008-09 AY to Fall 09						63.5%	65.3%	64.0%	67.3%	64.5%	70.4%	65.0%
			Actual Baseline Data:	*# in AY 08-09 Cohort*							389		413		361	
				# retained to Fall 09							253		278		264	
3. Workforce & Economic Development																
b. *iii.*	Targeted	# of programs offered through 100% distance ed.		January 1, 2013						0	1	1	1	3	3	4
4. Institutional Efficiency & Accountability																
d. *i.*	Targeted	Percent of eligible programs that are discipline accredited		January 1, 2013						90.30%	100.00%	90.30%	100.00%	90.30%	100.00%	90.30%
			Actual Baseline Data:	*# programs*							34		31		31	
				# discipline accredited							34		31		31	

A margin of error will be allowed for annual benchmarks and 6-year targets in the Annual Review

Attachment D 4-year university, 2-year college, technical college Year 5 Annual Report

System: Louisiana State University System

Institution: Louisiana State University and A&M College

July 2015

GRAD Act Template for Reporting Annual Benchmarks and 6-Year Targets

Element Reference	Measure	Baseline Year/Term Data to include	Baseline data	Year 1 Benchmark	Year 1 Actual	Year 2 Benchmark	Year 2 Actual	Year 3 Benchmark	Year 3 Actual	Year 4 Benchmark	Year 4 Actual	Year 5 Benchmark	Year 5 Actual	Year 6 Target
1. Student Success														
a. *i. a.* Targeted	1st to 2nd Year Retention Rate	Fall 08 to Fall 09	83.6%	83.6%	84.2%	81.8%	84.3%	84.0%	83.3%	84.3%	82.6%	84.6%	84.6%	85.0%
	Actual Baseline Data:	*# in Fall 08 Cohort*	5134		4779		5477		5281		5716		5498	
		# retained to Fall 09	4292		4026		4615		4397		4720		4651	
ii. Targeted	1st to 3rd Year Retention Rate	Fall 07 cohort	76.5%	73.3%	74.2%	71.5%	75.0%	74.0%	75.2%	75.3%	73.0%	76.6%	73.1%	77.0%
	Actual Baseline Data:	*# in Fall 07 Cohort*	4587		5134		4779		5477		5281		5716	
		# retained to Fall 09	3509		3811		3585		4121		3857		4180	
iv. Targeted	Same Institution Graduation Rate	2008 Grad Rate Survey	60.7%	60.7%	60.8%	60.7%	60.6%	61.0%	62.0%	61.3%	66.7%	61.6%	69.1%	64.0%
	Actual Baseline Data:	*Fall revised cohort (total)*	5170		5359		5692		4966		4503		4585	
		completers <=150% of time	3138		3258		3448		3080		3003		3170	
vii. Targeted	*Statewide Graduation Rate*	Fall 2002 Cohort						67.5%	67.5%	68.0%	73.0%	68.5%	73.7%	69.0%
	Actual Baseline Data:	*# of Fall 02 FTF (cohort)*							4967		4502		4588	
		completers <=150% of time							3352		3287		3382	
b. *i.* Targeted	Percent Change in program completers													
	Baccalaureate			-7.2%	-7.2%	-9.6%	-6.5%	-9.6%	-2.8%	-8.6%	-4.4%	-8.0%	-1.2%	-5.3%
		2008-09 AY	4648	4313	4312	4202	4347	4202	4519	4248	4443	4276	4593	4402
	Masters			7.9%	7.9%	0.9%	13.0%	0.9%	27.5%	0.9%	20.5%	0.9%	15.1%	0.9%
		2008-09 AY	966	1042	1042	975	1092	975	1232	975	1164	975	1112	975
	Specialist			-5.3%	-5.3%	-47.4%	10.5%	-47.4%	-36.8%	-47.4%	-47.4%	-47.4%	5.3%	-47.4%
		2008-09 AY	19	18	18	10	21	10	12	10	10	10	20	10
	Doctoral			25.0%	25.0%	4.2%	6.3%	4.2%	34.2%	4.2%	27.1%	4.2%	43.8%	4.2%
		2008-09 AY	240	300	300	250	255	250	322	250	305	250	345	250
	Professional			0.0%	0.0%	0.0%	-7.4%	0.0%	1.2%	0.0%	1.2%	0.0%	-3.7%	0.0%
		2008-09 AY	81	81	81	81	75	81	82	81	82	81	78	81
2. Articulation & Transfer														
a. *i.a.* Targeted	1st to 2nd Year Retention Rate of Transfer Students	2008-09 AY to Fall 09						80.1%	80.2%	80.3%	83.0%	80.5%	81.8%	81.0%
	Actual Baseline Data:	*# in AY 08-09 Cohort*							1117		1105		1179	
		# retained to Fall 09							896		918		965	
3. Workforce & Economic Development														
b. *ii.* Targeted	Number of students enrolled in distance education courses													
	# enrolled in courses w/ 50% -99% distance ed	2008-09 AY						480	480	500	609	525	1196	550
	# enrolled in courses w/ 100% distance ed	2008-09 AY						3,088	3,088	3,100	3,587	3,125	6,197	3,160
c. *iii. b.* Targeted	Dollar amt research & development expenditures per	2006-2011 FYs						$131,000	$138,385	$131,000	$139,600	$131,000	$141.057	$131,000
	research/instructional faculty	Total R&D expenditures							$151,324		$151,745		$151.044	
		# of inst/research fac FTE							1093.5		1087		1071	
4. Institutional Efficiency & Accountability														
d. *i.* Targeted	*Percent of eligible programs that are discipline accredited*	January 1, 2013						89.0%	98.7%	89.0%	98.6%	90.0%	98.6%	90.0%
	Actual Baseline Data:	*# programs*							76		73		73	
		# discipline accredited							75		72		72	

A margin of error will be allowed for annual benchmarks and 6-year targets in the Annual Review

Attachment D 4-year university, 2-year college, technical college Year 5 Annual Report

System: Louisiana State University System
Institution: Louisiana State University Alexandria
July 2015

GRAD Act Template for Reporting Annual Benchmarks and 6-Year Targets

Element Reference	Measure	Baseline Year/Term Data to include	Baseline data	Year 1 Benchmark	Year 1 Actual	Year 2 Benchmark	Year 2 Actual	Year 3 Benchmark	Year 3 Actual	Year 4 Benchmark	Year 4 Actual	Year 5 Benchmark	Year 5 Actual	Year 6 Target
1. Student Success														
a. *i.* Targeted	1st to 2nd Year Retention Rate	Fall 08 to Fall 09	*54.2%*	*59.0%*	*59.1%*	*59.0%*	*55.0%*	*60.0%*	*48.8%*	*60.0%*	*49.5%*	*61.0%*	*59.3%*	*61.0%*
	Actual Baseline Data:	*# in Fall 08 Cohort*	*306*		*308*		*307*		*283*		*317*		*332*	
		# retained to Fall 09	*166*		*182*		*169*		*138*		*157*		*197*	
ii. Targeted	1st to 3rd Year Retention Rate	Fall 07 cohort	*31.3%*	*36.0%*	*36.9%*	*36.0%*	*40.7%*	*37.0%*	*37.5%*	*37.0%*	*38.2%*	*38.0%*	*38.5%*	*38.0%*
4-Yr only	*Actual Baseline Data:*	*# in Fall 07 Cohort*	*297*		*306*		*307*		*307*		*283*		*317*	
		# retained to Fall 09	*93*		*113*		*125*		*115*		*108*		*122*	
iv. Targeted	Same Institution Graduation Rate	2008 Grad Rate Survey	*5.0%*	*10.0%*	*10.8%*	*9.0%*	*9.5%*	*9.0%*	*10.0%*	*11.0%*	*12.2%*	*13.0%*	*14.0%*	*15.0%*
	Actual Baseline Data:	*Fall revised cohort (total)*	*455*		*389*		*421*		*388*		*328*		*297*	
		completers <=150% of time	*24*		*42*		*40*		*37*		*40*		*41*	
vii. Targeted	Statewide Graduation Rate	Fall 2002 Cohort	*15.0%*	*17.0%*	*17.7%*	*16.0%*	*16.6%*	*16.0%*	*17.5%*	*17.0%*	*20.7%*	*18.0%*	*23.3%*	*19.0%*
optional	*Actual Baseline Data:*	*# of Fall 02 FTF (cohort)*	*455*		*389*		*415*		*388*		*323*		*296*	
		completers <=150% of time	*69*		*69*		*69*		*68*		*67*		*69*	
b. *i.* Targeted	Percent Change in program completers													
	Baccalaureate			*0.0%*	*-17.5%*	*1.2%*	*-3.6%*	*2.4%*	*8.4%*	*3.6%*	*9.6%*	*4.8%*	*14.5%*	*6.6%*
		2008-09 AY	*166*	*166*	*137*	*168*	*160*	*170*	*180*	*172*	*182*	*174*	*190*	*177*
d. *i. d.* Targeted	*Passage rate on licensure exam in Education*	2008 Calendar YR						*100.0%*	*100.0%*	*100.0%*	*100.0%*	*100.0%*	*100.0%*	*100.0%*
	Actual Baseline Data:	*# of students taking PRAXIS*							*13*		*25*		*22*	
		# who met standards for passage							*13*		*25*		*22*	
2. Articulation & Transfer														
a. *i.a.* Targeted	1st to 2nd Year Retention Rate of Transfer Students	2008-09 AY to Fall 09						*55.6%*	*55.8%*	*55.6%*	*58.8%*	*55.8%*	*66.7%*	*56.0%*
	Actual Baseline Data:	*# in AY 08-09 Cohort*							*351*		*267*		*297*	
		# retained to Fall 09							*196*		*157*		*198*	
3. Workforce & Economic Development														
b. *ii.* Targeted	Number of students enrolled in distance education courses													
	# enrolled in courses w/ 50% -99% distance ed	2008-09 AY						*1,080*	*1093*	*1,100*	*1251*	*1,115*	*1270*	*1,130*
	# enrolled in courses w/ 100% distance ed	2008-09 AY						*1,180*	*1201*	*1,210*	*1418*	*1,225*	*2008*	*1,240*
4. Institutional Efficiency & Accountability														
d. *i.* Targeted	*Percent of eligible programs that are discipline accredited*	January 1, 2013						*60.0%*	*69.2%*	*60.0%*	*64.3%*	*70.0%*	*73.3%*	*80.0%*
	Actual Baseline Data:	*# programs*							*13*		*14*		*15*	
		# discipline accredited							*9*		*9*		*11*	

A margin of error will be allowed for annual benchmarks and 6-year targets in the Annual Review

Attachment D 4-year university, 2-year college, technical college Year 5 Annual Report

System: Louisiana State University System

Institution: Louisiana State University Shreveport

July 2015

GRAD Act Template for Reporting Annual Benchmarks and 6-Year Targets

Element Reference	Measure	Baseline Year/Term Data to include	Baseline data	Year 1 Benchmark	Year 1 Actual	Year 2 Benchmark	Year 2 Actual	Year 3 Benchmark	Year 3 Actual	Year 4 Benchmark	Year 4 Actual	Year 5 Benchmark	Year 5 Actual	Year 6 Target
1. Student Success														
a. *i.* Targeted	1st to 2nd Year Retention Rate	Fall 08 to Fall 09	64.8%	65.0%	68.7%	66.0%	65.0%	67.0%	65.7%	68.0%	66.2%	69.0%	66.4%	70.0%
	Actual Baseline Data:	*# in Fall 08 Cohort*	349		345		334		315		364		318	
		# retained to Fall 09	226		237		217		207		241		211	
ii. Targeted	1st to 3rd Year Retention Rate	Fall 07 cohort	46.3%	45.0%	46.4%	46.0%	56.8%	47.0%	52.4%	48.0%	47.3%	49.0%	49.5%	50.0%
	Actual Baseline Data:	*# in Fall 07 Cohort*	341		349		345		334		315		364	
		# retained to Fall 09	158		162		196		175		149		180	
iv. Targeted	Same Institution Graduation Rate	2008 Grad Rate Survey	20.0%	20.7%	20.0%	22.0%	28.0%	24.0%	26.5%	26.0%	26.9%	28.0%	33.0%	30.0%
	Actual Baseline Data:	*Fall revised cohort (total)*	463		565		322		408		383		341	
		completers <=150% of time	93		113		90		108		103		111	
vi. Targeted	Award Productivity	2008-09 AY	0.177	0.158	0.158	0.16	0.185	0.164	0.169	0.167	0.178	0.169	0.177	0.17
	Actual Baseline Data:	*2008-09 undergrad FTE*	2994		3168		3047.8		3065.1		2891.6		2528.9	
		awards (duplicated)	529		502		565		517		515		448	
b. *i.* Targeted	Percent Change in program completers													
	Baccalaureate			-5.0%	-5.0%	-4.0%	6.3%	-2.0%	-2.8%	0.0%	-3.0%	1.0%	-15.4%	2.0%
		2008-09 AY	527	501	501	506	560	516	512	527	511	532	446	538
	Masters			-10.0%	-10.0%	-6.0%	9.0%	-3.0%	3.0%	0.0%	20.0%	1.0%	27.0%	2.0%
		2008-09 AY	100	90	90	94	109	97	103	100	120	101	127	102
	Specialist			33.0%	33.3%	33.0%	-83.3%	33.0%	0.0%	33.0%	-50.0%	33.0%	-33.3%	33.0%
		2008-09 AY	6	8	8	8	1	8	6	8	3	8	4	8
d. *i. b.* Targeted	*Passage rate on licensure exam in Education*	2007-08 AY						100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
	Actual Baseline Data:	*# of students taking PRAXIS*							122		92		77	
		# who met standards for passage							122		92		77	
2. Articulation & Transfer														
a. *i.b.* Targeted	1st to 2nd Year Retention Rate of Transfer Students (full time, bacc, soph)	2008-09 AY to Fall 09						64.0%	66.7%	64.2%	67.1%	64.5%	66.6%	65.0%
	Actual Baseline Data:	*# in AY 08-09 Cohort*							381		319		329	
		# retained to Fall 09							254		214		219	
3. Workforce & Economic Development														
b. *iii.* Targeted	# of programs offered through 100% distance education	January 1, 2013						2	2	2	5	3	5	3
4. Institutional Efficiency & Accountability														
d. *i.* Targeted	*Percent of eligible programs that are discipline accredited*	January 1, 2013						76.0%	80.0%	76.0%	80.0%	76.0%	81.5%	76.0%
	Actual Baseline Data:	*# programs*							30		30		27	
		# discipline accredited							24		24		22	

**** A margin of error will be allowed for annual benchmarks and 6-year targets in the Annual Review**

Attachment D 4-year university, 2-year college, technical college Year 5 Annual Report

System: University of Louisiana System

Institution: Louisiana Tech University

July 2015

GRAD Act Template for Reporting Annual Benchmarks and 6-Year Targets

Element Reference	Measure	Baseline Year/Term Data to include	Baseline data	Year 1 Benchmark	Year 1 Actual	Year 2 Benchmark	Year 2 Actual	Year 3 Benchmark	Year 3 Actual	Year 4 Benchmark	Year 4 Actual	Year 5 Benchmark	Year 5 Actual	Year 6 Target
1. Student Success														
a. *i. a.* Targeted	1st to 2nd Year Retention Rate	Fall 08 to Fall 09	74.2%	74-78%	74.3%	76.2%	77.4%	76.4%	76.1%	76.6%	78.4%	76.8%	79.7%	77.0%
	Actual Baseline Data:	*# in Fall 08 Cohort*	1506		1450		1528		1579		1269		1504	
		# retained to Fall 09	1118		1078		1182		1201		995		1198	
ii. Targeted	1st to 3rd Year Retention Rate	Fall 07 cohort	61.6%	62-66%	64.9%	64.2%	64.9%	64.4%	64.1%	64.6%	66.2%	64.8%	67.4%	65.0%
	Actual Baseline Data:	*# in Fall 07 Cohort*	1522		1506		1451		1528		1579		1269	
		# retained to Fall 09	938		978		941		979		1045		855	
iv. Targeted	Same Institution Graduation Rate	2008 Grad Rate Survey	47.3%	45.5-49.5%	45.5%	48.0%	47.4%	48.3%	48.2%	48.7%	47.0%	49.0%	49.3%	50.0%
	Actual Baseline Data:	*Fall revised cohort (total)*	1936		1948		1646		1653		1625		1522	
		completers <=150% of time	916		887		780		796		764		751	
vii. Targeted	Statewide Graduation Rate	Fall 2002 Cohort	53.0%	51.3-57.1%	53.20%	55.20%	54.20%	55.4%	54.80%	55.6%	52.80%	55.8%	56.2%	56.0%
	Actual Baseline Data:	*# of Fall 02 FTF (cohort)*	1969		1962		1646		1656		1624		1525	
		completers <=150% of time	1045		1043		892		908		857		857	
b. *i.* Targeted	Percent Change in program completers													
	Bachelors			-3.4%	-3.4%	-3.1%	-6.9%	-2.3%	-7.4%	-1.0%	-8.3%	0.0%	0.0%	2.0%
		2008-09 AY	1306	1262	1261	1266	1216	1276	1210	1293	1197	1306	1306	1332
	Post-Bac			31.5%	31.6%	56.0%	115.8%	68.0%	-10.5%	76.0%	-36.8%	85.0%	-57.9%	85.0%
		2008-09 AY	19	25	25	30	41	32	17	33	12	35	8	35
	Masters			16.7%	16.8%	16.0%	27.8%	16.0%	31.5%	18.0%	34.9%	18.0%	29.0%	20.0%
		2008-09 AY	352	411	411	408	450	408	463	415	475	415	454	422
	Doctoral			-2.7%	-2.7%	-0.7%	-10.8%	1.0%	29.7%	1.0%	45.9%	1.0%	16.2%	2.0%
		2008-09 AY	37	36	36	37	33	37	48	37	54	37	43	38
d. *i. b.* Targeted	Passage rate on licensure exam in Education	2007-08 AY						98%	100%	98%	100%	98%	100%	98%
	Actual Baseline Data:	*# of students who took exam*							171		226		175	
		# of students that passed							171		226		175	
2. Articulation & Transfer														
a. *i.a.* Targeted	1st to 2nd Year Retention Rate of Transfer Students	2008-09 AY to Fall 09						62.0%	62.8%	62.4%	61.0%	62.6%	73.7%	63.0%
	Actual Baseline Data:	*# in AY 08-09 Cohort*							600		551		494	
		# retained to Fall 09							377		336		364	
3. Workforce & Economic Development														
b. *iii.* Targeted	# of programs offered through 100% distance ed.	January 1, 2013						12	13	13	14	13	15	13
c. *v.* Targeted	# of intellectual property measures resulting fm research prod & tech trans	2008-09 FY						42	46	43	52	43	46	44
4. Institutional Efficiency & Accountability														
d. *i.* Targeted	Percent of eligible programs that are discipline accredited	January 1, 2013						93.2%	95.0%	93.2%	93.7%	93.2%	93.7%	93.2%
	Actual Baseline Data:	*# programs*							80		79		79	
		# discipline accredited							76		74		74	

A margin of error will be allowed for annual benchmarks and 6-year targets in the Annual Review

Attachment D 4-year university, 2-year college, technical college Year 5 Annual Report

System: University of Louisiana System

Institution: McNeese State University

July 2015

GRAD Act Template for Reporting Annual Benchmarks and 6-Year Targets

Element Reference	Measure	Baseline Year/Term Data to include	Baseline data	Year 1 Benchmark	Year 1 Actual	Year 2 Benchmark	Year 2 Actual	Year 3 Benchmark	Year 3 Actual	Year 4 Benchmark	Year 4 Actual	Year 5 Benchmark	Year 5 Actual	Year 6 Target
1. Student Success														
a. *i. a.* Targeted	1st to 2nd Year Retention Rate	Fall 08 to Fall 09	67.5%	67-71%	68.3%	69.1%	67.3%	69.3%	67.8%	69.5%	68.9%	69.7%	69.7%	71.0%
	Actual Baseline Data:	*# in Fall 08 Cohort*	1275		1236		1266		1332		1297		1312	
		# retained to Fall 09	861		844		852		903		893		915	
ii. Targeted	1st to 3rd Year Retention Rate	Fall 07 cohort	54.8%	54-58%	56.0%	56.1%	56.7%	56.4%	57.5%	56.8%	55.4%	57.2%	57.9%	58.0%
	Actual Baseline Data:	*# in Fall 07 Cohort*	1252		1275		1224		1266		1332		1297	
		# retained to Fall 09	686		714		694		728		738		751	
iv. Targeted	Same Institution Graduation Rate	2008 Grad Rate Survey	36.0%	33-37%	35.1%	35.2%	35.1%	35.5%	37.3%	36.0%	38.0%	36.5%	38.2%	39.0%
	Actual Baseline Data:	*Fall revised cohort (total)*	1358		1506		1603		1311		1272		1247	
		completers <=150% of time	494		528		562		489		480		476	
vi. Targeted	Award Productivity	2008-09 AY	0.17	0.16	0.16	0.16	0.163	0.16	0.173	0.16	0.193	0.16	0.193	0.165
	Actual Baseline Data:	*2008-09 undergrad FTE*	6781		7077		7251.4		7216.4		6973		6758	
		awards (duplicated)	1171		1127		1182		1250		1334		1302	
b. *i.* Targeted	Percent Change in program completers													
	Bachelors			-7.1%	-7.1%	-6.3%	-6.9%	-5.8%	5.2%	-4.8%	12.1%	-3.5%	9.28%	2.0%
		2008-09 AY	1035	962	962	970	964	975	1089	985	1160	999	1131	1056
	Post-Bac			N/A*	N/A*	N/A*	N/A*	N/A*	N/A*	N/A*	N/A*	N/A*	N/A*	N/A*
		2008-09 AY	0	0	0	27	27	28	26	33	25	34	31	37
	Masters			-9.2%	-9.2%	0.0%	8.2%	-8.2%	-5.4%	1.4%	-11.2%	-3.1%	-7.5%	2.5%
		2008-09 AY	294	267	267	294	318	270	278	298	261	285	272	301
	Education Specialist			N/A*	N/A*	N/A*	N/A*	N/A*	N/A*	N/A*	N/A*	N/A*	N/A*	N/A*
		2008-09 AY	0	3	3	2	9	1	2	2	2	2	0	3
d. *i. b.* Targeted	Passage rate on licensure exam in Education	2007-08 AY						98.0%	100.0%	98.0%	100.0%	98.0%	100.0%	98.0%
	Actual Baseline Data:	*# of students who took exam*							200		189		166	
		# of students that passed							200		189		166	
2. Articulation & Transfer														
a. *i.b.* Targeted	1st to 2nd Year Retention Rate of Transfer Students (full time, bacc, soph)	2008-09 AY to Fall 09						72.8%	73.8%	73.0%	80.1%	74.0%	81.6%	75.0%
	Actual Baseline Data:	*# in AY 08-09 Cohort*							343		296		354	
		# retained to Fall 09							253		237		289	
3. Workforce & Economic Development														
b. *iii.* Targeted	# of programs offered through 100% distance ed.	January 1, 2013						9	17	12	16	13	19	14
4. Institutional Efficiency & Accountability														
d. *i.* Targeted	Percent of eligible programs that are discipline accredited	January 1, 2013						86.0%	88.0%	86.0%	87.5%	86.0%	89.4%	86.0%
	Actual Baseline Data:	*# programs*							50		48		47	
		# discipline accredited							44		42		42	

A margin of error will be allowed for annual benchmarks and 6-year targets in the Annual Review

* Percent change from baseline cannot be calculated from a baseline of 0

Attachment D 4-year university, 2-year college, technical college Year 5 Annual Report

System: University of Louisiana System
Institution: Nicholls State University
July 2015

GRAD Act Template for Reporting Annual Benchmarks and 6-Year Targets

Element Reference	Measure		Baseline Year/Term Data to include	Baseline data	Year 1 Benchmark	Year 1 Actual	Year 2 Benchmark	Year 2 Actual	Year 3 Benchmark	Year 3 Actual	Year 4 Benchmark	Year 4 Actual	Year 5 Benchmark	Year 5 Actual	Year 6 Target
1. Student Success															
a. *i. a.* Targeted	1st to 2nd Year Retention Rate		Fall 08 to Fall 09	67.6%	66.1-70.1%	70.3%	68.6%	71.2%	69.1%	71.0%	69.6%	67.8%	70.1%	69.5%	70.6%
		Actual Baseline Data:	*# in Fall 08 Cohort*	1219		1213		1050		983		1035		1055	
			# retained to Fall 09	824		853		748		698		702		733	
ii. Targeted	1st to 3rd Year Retention Rate		Fall 07 cohort	56.6%	54.1-58.1%	53.9%	57.6%	58.5%	58.1%	57.9%	58.6%	59.1%	59.1%	54.6%	59.6%
		Actual Baseline Data:	*# in Fall 07 Cohort*	1161		1219		1213		1050		983		1035	
			# retained to Fall 09	657		657		709		608		581		565	
iv. Targeted	Same Institution Graduation Rate		2008 Grad Rate Survey	26.6%	26-30%	29.2%	30.0%	28.7%	35.0%	38.4%	35.5%	39.4%	36.0%	41.3%	38.0%
		Actual Baseline Data:	*Fall revised cohort (total)*	1404		1391		1574		1171		1069		1156	
			completers <=150% of time	374		406		451		450		421		477	
vi. Targeted	Award Productivity		2008-09 AY	0.17	0.175	0.18	0.175	0.188	0.175	0.189	0.175	0.215	0.175	0.225	0.178
		Actual Baseline Data:	*2008-09 undergrad FTE*	5957.6		6064.8		5907.6		5653.2		5432.5		5314.8	
			awards (duplicated)	1036		1091		1111		1067		1169		1195	
vii. Targeted	Statewide Graduation Rate		Fall 2002 Cohort	30.0%	29-33%	31.9%	32.0%	32.1%	36.5%	41.9%	37.0%	43.3%	37.5%	46.6%	39.0%
		Actual Baseline Data:	*# of Fall 02 FTF (cohort)*	1411		1395		1582		1170		1057		1161	
			completers <=150% of time	424		444		508		490		458		541	
b. *i.* Targeted	Percent Change in program completers														
	Bachelors				8.8%	8.8%	-6.0%	10.9%	-1.0%	5.4%	1.5%	5.0%	-1.0%	11.9%	-5.0%
			2008-09 AY	855	930	930	804	948	846	901	868	898	846	957	812
	Post-Bac				N/A*	N/A*	N/A*	N/A*	N/A*	N/A*	N/A*	N/A*	N/A*	N/A*	N/A*
			2008-09 AY	0	0	0	2	0	3	0	4	0	5	0	6
	Masters				32.1%	32.1%	2.0%	9.2%	3.0%	73.4%	4.0%	46.8%	5.0%	49.5%	7.0%
			2008-09 AY	109	144	144	111	119	112	189	113	160	114	163	117
	Specialist				66.7%	66.7%	66.7%	100.0%	66.7%	133.3%	66.7%	300.0%	66.7%	100.0%	66.7%
			2008-09 AY	3	5	5	5	6	5	7	5	12	5	6	5
d. *i. b.* Targeted	Passage rate on licensure exam in Education		2007-08 AY						98.0%	100.0%	98.0%	100.0%	98.0%	100.0%	98.0%
		Actual Baseline Data:	*# of students who took exam*							182		177		139	
			# of students that passed							182		177		139	
i. d. Targeted	Passage rate on licensure exam in Nursing (RN)		2008 Calendar Year						87.0%	93.2%	87.3%	97.8%	87.6%	85.7%	88.0%
		Actual Baseline Data:	*# of students who took exam*							73		93		112	
			# of students that passed							68		91		96	
2. Articulation & Transfer															
a. *i.b.* Targeted	1st to 2nd Year Retention Rate of Transfer Students (full time, bacc, soph)		2008-09 AY to Fall 09						69.4%	70.7%	69.6%	79.8%	69.8%	71.3%	70.0%
		Actual Baseline Data:	*# in AY 08-09 Cohort*							174		208		122	
			# retained to Fall 09							123		166		87	
3. Workforce & Economic Development															
b. *iii.* Targeted	# of programs offered through 100% distance ed.		January 1, 2013						1	5	4	9	5	16	6
4. Institutional Efficiency & Accountability															
d. *i.* Targeted	Percent of eligible programs that are discipline accredited		January 1, 2013						80.0%	82.9%	80.0%	87.0%	80.0%	88.6%	80.0%
		Actual Baseline Data:	*# programs*							41		46		44	
			# discipline accredited							34		40		39	

A margin of error will be allowed for annual benchmarks and 6-year targets in the Annual Review

* Percent change from baseline cannot be calculated from a baseline of 0

Attachment D 4-year university, 2-year college, technical college Year 5 Annual Report

System: University of Louisiana System
Institution: Northwestern State University
July 2015

GRAD Act Template for Reporting Annual Benchmarks and 6-Year Targets

Element Reference	Measure	Baseline Year/Term Data to include	Baseline data	Year 1 Benchmark	Year 1 Actual	Year 2 Benchmark	Year 2 Actual	Year 3 Benchmark	Year 3 Actual	Year 4 Benchmark	Year 4 Actual	Year 5 Benchmark	Year 5 Actual	Year 6 Target
1. Student Success														
a. *i. a.* Targeted	1st to 2nd Year Retention Rate	Fall 08 to Fall 09	67.9%	68.5-72.5%	70.2%	70.5%	67.5%	70.5%	67.1%	71.6%	71.0%	71.6%	68.2%	72.6%
	Actual Baseline Data:	*# in Fall 08 Cohort*	1184		1238		1068		1144		1287		1160	
		# retained to Fall 09	804		869		721		768		914		791	
ii. Targeted	1st to 3rd Year Retention Rate	Fall 07 cohort	52.8%	51.4-54.0%	53.8%	53.4%	55.3%	53.4%	55.0%	54.7%	51.7%	55.7%	58.4%	55.7%
	Actual Baseline Data:	*# in Fall 07 Cohort*	1283		1184		1238		1068		1144		1287	
		# retained to Fall 09	678		637		685		587		592		752	
iv. Targeted	Same Institution Graduation Rate	2008 Grad Rate Survey	28.1%	26-30%	29.5%	28.0%	27.1%	32.0%	34.0%	34.0%	35.0%	35.0%	37.4%	36.0%
	Actual Baseline Data:	*Fall revised cohort (total)*	1875		1826		1793		1417		1324		1281	
		completers <=150% of time	527		539		486		479		462		479	
vi. Targeted	Award Productivity	2008-09 AY	0.19	0.185	0.19	0.195	0.259	0.195	0.281	0.195	0.214	0.195	0.215	0.205
	Actual Baseline Data:	*2008-09 undergrad FTE*	7150		7305		7223		7157.7		7082.4		6745.4	
		awards (duplicated)	1364		1369		1870		2009		1514		1452	
b. *i.* Targeted	Percent Change in program completers													
	Bachelors			2.3%	2.3%	-0.7%	2.4%	-0.6%	1.0%	-0.5%	4.9%	-0.2%	-1.7%	0.0%
		2008-09 AY	1052	1076	1076	1045	1077	1046	1062	1047	1104	1050	1034	1052
	Post-Bac Cert.			N/A*	N/A*	N/A*	N/A*	N/A*	N/A*	N/A*	N/A*	N/A*	N/A*	N/A*
		2008-09 AY	0	0	0	59	57	59	56	59	60	59	50	59
	Masters			-2.7%	-2.6%	0.3%	8.3%	1.6%	11.3%	0.7%	21.7%	2.0%	20.4%	2.0%
		2008-09 AY	230	224	224	231	249	234	256	232	280	235	277	235
	Post-Masters Cert			N/A*	N/A*	N/A*	N/A*	N/A*	N/A*	N/A*	N/A*	N/A*	N/A*	N/A*
		2008-09 AY	0	0	0	2	5	2	8	2	7	2	11	2
	Specialists			-25.0%	-25.0%	-20.0%	-35.0%	-20.0%	-60.0%	-20.0%	-30.0%	-10.0%	-35.0%	-10.0%
		2008-09 AY	20	15	15	16	13	16	8	16	14	18	13	18
d. *i. b.* Targeted	Passage rate on licensure exam in Education	2007-08 AY						98.0%	100.0%	98.0%	100.0%	98.0%	100.0%	98.0%
	Actual Baseline Data:	*# of students who took exam*							100		98		136	
		# of students that passed							100		98		136	
i. d. Targeted	Passage rate on licensure exam in Nursing (RN)	2008 Calendar Year						92.0%	96.8%	92.0%	94.5%	92.0%	90.1%	92.0%
	Actual Baseline Data:	*# of students who took exam*							95		128		141	
		# of students that passed							92		121		127	
2. Articulation & Transfer														
a. *i.b.* Targeted	1st to 2nd Year Retention Rate of Transfer Students (full time, bacc, soph)	2008-09 AY to Fall 09						68.1%	73.1%	68.3%	69.8%	68.4%	76.8%	68.5%
	Actual Baseline Data:	*# in AY 08-09 Cohort*							364		281		298	
		# retained to Fall 09							266		196		229	
3. Workforce & Economic Development														
b. *iii.* Targeted	# of programs offered through 100% distance ed.	January 1, 2013						45	45	45	50	45	53	45
4. Institutional Efficiency & Accountability														
d. *i.* Targeted	Percent of eligible programs that are discipline accredited	January 1, 2013						93.0%	96.5%	93.0%	96.6%	93.0%	94.9%	93.0%
	Actual Baseline Data:	*# programs*							57		58		59	
		# discipline accredited							55		56		56	

A margin of error will be allowed for annual benchmarks and 6-year targets in the Annual Review

* Percent change from baseline cannot be calculated from a baseline of 0

Attachment D 4-year university, 2-year college, technical college Year 5 Annual Report

System: University of Louisiana System
Institution: Southeastern Louisiana University
July 2015

GRAD Act Template for Reporting Annual Benchmarks and 6-Year Targets

Element Reference	Measure	Baseline Year/Term Data to include	Baseline data	Year 1 Benchmark	Year 1 Actual	Year 2 Benchmark	Year 2 Actual	Year 3 Benchmark	Year 3 Actual	Year 4 Benchmark	Year 4 Actual	Year 5 Benchmark	Year 5 Actual	Year 6 Target
1. Student Success														
a. *i. a.* Targeted	1st to 2nd Year Retention Rate	Fall 08 to Fall 09	67.5%	65-69%	67.0%	67.8%	68.6%	68.5%	66.4%	69.0%	63.1%	69.5%	62.1%	71.0%
	Actual Baseline Data:	*# in Fall 08 Cohort*	2618		2513		2418		2294		2228		2370	
		# retained to Fall 09	1766		1683		1658		1524		1443		1471	
ii. Targeted	1st to 3rd Year Retention Rate	Fall 07 cohort	51.2%	50.4-54.4%	53.4%	52.8%	52.5%	53.6%	55.9%	54.3%	54.2%	54.8%	52.1%	55.8%
	Actual Baseline Data:	*# in Fall 07 Cohort*	2529		2618		2512		2420		2294		2288	
		# retained to Fall 09	1294		1397		1318		1354		1243		1193	
iv. Targeted	Same Institution Graduation Rate	2008 Grad Rate Survey	28.5%	28.5-32.5%	30.7%	32.5%	33.4%	32.3%	33.4%	34.0%	34.3%	37.0%	36.0%	39.5%
	Actual Baseline Data:	*Fall revised cohort (total)*	2382		2539		2137		2228		2665		2524	
		completers <=150% of time	679		779		714		744		914		904	
vi. Targeted	Award Productivity	2008-09 AY	0.162	0.165	0.164	0.175	0.169	0.175	0.168	0.175	0.173	0.175	0.179	0.175
	Actual Baseline Data:	*2008-09 undergrad FTE*	12043		12414		12463		12106.9		11775.7		11302.5	
		awards (duplicated)	1947		2030		2105		2028		2037		2024	
b. *i.* Targeted	Percent Change in program completers													
	Bachelors			4.0%	4.0%	6.8%	2.5%	8.2%	4.1%	9.5%	4.4%	10.8%	4.6%	11.0%
		2008-09 AY	1872	1947	1947	1999	1919	2026	1948	2050	1954	2074	1959	2078
	Post-Bac Cert.			N/A*	N/A*	N/A*	N/A*	N/A*	N/A*	N/A*	N/A*	N/A*	N/A*	N/A*
		2008-09 AY	0	0	0	0	0	17	0	20	0	23	0	26
	Masters			-4.0%	-4.0%	-6.0%	23.6%	-7.4%	5.7%	-8.8%	18.5%	-10.3%	11.7%	-11.7%
		2008-09 AY	351	337	337	330	434	325	371	320	416	315	392	310
	Doctoral			-33.3%	-33.3%	0.0%	233.3%	66.7%	433.3%	100.0%	300.0%	133.4%	200.0%	166.7%
		2008-09 AY	3	2	2	3	10	5	16	6	12	7	9	8
d. *i. b.* Targeted	Passage rate on licensure exam in Education	2007-08 AY						98.0%	100.0%	98.0%	100.0%	98.0%	100.0%	98.0%
	Actual Baseline Data:	*# of students who took exam*							216		232		276	
		# of students that passed							216		232		276	
2. Articulation & Transfer														
a. *i.b.* Targeted	1st to 2nd Year Retention Rate of Transfer Students (full time, bacc, soph)	2008-09 AY to Fall 09						76.5%	79.0%	77.0%	78.3%	77.5%	76.4%	78.0%
	Actual Baseline Data:	*# in AY 08-09 Cohort*							568		520		499	
		# retained to Fall 09							449		407		381	
3. Workforce & Economic Development														
b. *iii.* Targeted	# of programs offered through 100% distance ed.	January 1, 2013						2	6	2	7	4	7	4
4. Institutional Efficiency & Accountability														
d. *i.* Targeted	Percent of eligible programs that are discipline accredited	January 1, 2013						81.0%	86.0%	81.0%	88.9%	81.0%	90.7%	81.0%
	Actual Baseline Data:	*# programs*							57		54		54	
		# discipline accredited							49		48		49	

A margin of error will be allowed for annual benchmarks and 6-year targets in the Annual Review

* Percent change from baseline cannot be calculated from a baseline of 0

Attachment D 4-year university, 2-year college, technical college Year 5 Annual Report

System: Southern University System

Institution: Southern University and A&M College

July 2015 (Renegotiated Yr. 5 benchmarks/Yr. 6 targets approved by BoR 2/23/15 and JLCB 5/20/15 are highlighted)

GRAD Act Template for Reporting Annual Benchmarks and 6-Year Targets

Element Reference	Measure		Baseline Year/Term Data to include	Baseline data	Year 1 Benchmark	Year 1 Actual	Year 2 Benchmark	Year 2 Actual	Year 3 Benchmark	Year 3 Actual	Year 4 Benchmark	Year 4 Actual	Year 5 Benchmark	Year 5 Actual	Year 6 Target
1. Student Success															
a. *i.* Targeted	1st to 2nd Year Retention Rate		Fall 08 to Fall 09	71.7%	72.0%	72.2%	72.4%	70.4%	72.7%	68.7%	73.1%	67.4%	68.0%	69.8%	68.1%
		Actual Baseline Data:	*# in Fall 08 Cohort*	1033		993		868		831		743		1100	
			# retained to Fall 09	741		717		611		571		501		768	
ii. Targeted	1st to 3rd Year Retention Rate		Fall 07 cohort	59.0%	60.1%	59.4%	61.0%	60.0%	62.2%	55.9%	63.2%	55.7%	56.7%	58.7%	57.2%
		Actual Baseline Data:	*# in Fall 07 Cohort*	1125		1034		993		868		831		743	
			# retained to Fall 09	664		614		596		485		463		436	
iv. Targeted	Same Institution Graduation Rate		2008 Grad Rate Survey	28.3%	30.1%	30.3%	30.5%	29.3%	32.0%	30.5%	32.4%	29.4%	32.9%	32.0%	34.9%
		Actual Baseline Data:	*Fall revised cohort (total)*	1176		1351		1575		1434		1129		1178	
			completers <=150% of time	333		409		462		437		332		375	
b. *i.* Targeted	Percent Change in program completer														
	Baccalaureate				-2.9%	-2.9%	1.0%	-7.8%	2.0%	-10.9%	3.0%	-4.6%	-15.5%	-14.6%	-16.0%
			2008-09 AY	895	869	869	904	825	913	797	922	854	756	764	752
	Masters				-9.3%	-9.3%	1.0%	-6.4%	1.9%	-5.8%	2.9%	0.6%	-15.1%	-10.6%	-11.9%
			2008-09 AY	312	283	283	315	292	318	294	321	314	265	279	275
	Doctoral				11.1%	11.1%	5.6%	27.8%	11.1%	138.9%	16.7%	50.0%	-44.4%	-44.4%	-38.9%
			2008-09 AY	18	20	20	19	23	20	43	21	27	10	10	11
d. *i. b.* Targeted	*Passage rate on licensure exam in Education*		2007-08 AY						98.0%	100.0%	98.5%	100.0%	98.8%	100.0%	99.0%
		Actual Baseline Data:	*# of students taking PRAXIS*							73		65		45	
			# who met standards for passage							73		65		45	
i. d. Targeted	*Passage rate on licensure exam in Nursing (RN)*		2008 Calendar YR						86.4%	86.5%	86.6%	93.2%	86.8%	81.3%	87.0%
		Actual Baseline Data:	*# of students taking NCLEX*							111		88		112	
			# who met standards for passage							96		82		91	
2. Articulation & Transfer															
a. *i.b.* Targeted	1st to 2nd Year Retention Rate of Transfer Students (full time, bacc, soph)		2008-09 AY to Fall 09						75.0%	75.4%	75.5%	76.0%	76.0%	82.9%	76.5%
		Actual Baseline Data:	*# in AY 08-09 Cohort*							317		283		362	
			# retained to Fall 09							239		215		300	
3. Workforce & Economic Development															
b. *iii.* Targeted	# of programs offered through 100% distance education		January 1, 2013						3	4	4	8	4	8	5
4. Institutional Efficiency & Accountability															
d. *i.* Targeted	*Percent of eligible programs that are discipline accredited*		January 1, 2013						85.0%	93.9%	85.0%	94.1%	85.0%	93.9%	85.0%
		Actual Baseline Data:	*# programs*							33		34		33	
			# discipline accredited							31		32		31	

A margin of error will be allowed for annual benchmarks and 6-year targets in the Annual Review

Attachment D 4-year university, 2-year college, technical college Year 5 Annual Report

System: Southern University System
Institution: Southern University at New Orleans
July 2015

GRAD Act Template for Reporting Annual Benchmarks and 6-Year Targets

Element Reference	Measure	Baseline Year/Term Data to include	Baseline data	Year 1 Benchmark	Year 1 Actual	Year 2 Benchmark	Year 2 Actual	Year 3 Benchmark	Year 3 Actual	Year 4 Benchmark	Year 4 Actual	Year 5 Benchmark	Year 5 Actual	Year 6 Target
1. Student Success														
a. *i.* Targeted	1st to 2nd Year Retention Rate	Fall 08 to Fall 09	46.9%	47.4%	48.1%	47.9%	48.3%	48.4%	59.2%	48.9%	52.3%	49.4%	55.6%	49.9%
	Actual Baseline Data:	*# in Fall 08 Cohort*	273		399		319		98		172		180	
		# retained to Fall 09	128		192		154		58		90		100	
ii. Targeted	1st to 3rd Year Retention Rate	Fall 07 cohort	26.9%	27.4%	33.3%	27.9%	38.6%	28.4%	32.6%	28.9%	40.8%	29.4%	37.8%	29.9%
	Actual Baseline Data:	*# in Fall 07 Cohort*	279		273		399		319		98		172	
		# retained to Fall 09	75		91		154		104		40		65	
iv. Targeted	Same Institution Graduation Rate	2008 Grad Rate Survey	5.0%	8.0%	8.0%	5.4%	4.0%	N/A*	N/A*	10.9%	17.5%	11.4%	11.2%	13.1%
	Actual Baseline Data:	*Fall revised cohort (total)*	261		388		373		N/A*		183		277	
		completers <=150% of time	13		30		15		N/A*		32		31	
b. *i.* Targeted	Percent Change in program completers													
	Baccalaureate			-2.2%	-2.2%	0.0%	19.4%	1.0%	30.8%	1.3%	39.2%	1.8%	31.3%	2.2%
		2008-09 AY	227	222	222	227	271	229	297	230	316	231	298	232
	Masters			-10.8%	-10.8%	-4.1%	6.1%	-2.0%	3.4%	0.0%	24.3%	1.4%	23.6%	2.7%
		2008-09 AY	148	132	132	142	157	145	153	148	184	150	183	152
d. *i. b.* Targeted	*Passage rate on licensure exam in Education*	2007-08 AY						97.0%	100.0%	98.0%	100.0%	99.0%	100.0%	100.0%
	Actual Baseline Data:	*# of students taking PRAXIS*							25		16		26	
		# who met standards for passage							25		16		26	
2. Articulation & Transfer														
a. *i.b.* Targeted	1st to 2nd Year Retention Rate of Transfer Students (full time, bacc, soph)	2008-09 AY to Fall 09						58.6%	76.6%	60.6%	80.0%	62.6%	79.6%	64.6%
	Actual Baseline Data:	*# in AY 08-09 Cohort*							145		185		226	
		# retained to Fall 09							111		148		180	
3. Workforce & Economic Development														
b. *iii.* Targeted	# of programs offered through 100% distance education	January 1, 2013						1	3	2	3	2	3	2
4. Institutional Efficiency & Accountability														
d. *i.* Targeted	*Percent of eligible programs that are discipline accredited*	January 1, 2013						77.8%	92.3%	88.9%	90.9%	100.0%	100.0%	100.0%
	Actual Baseline Data:	*# programs*							13		11		13	
		# discipline accredited							12		10		13	

A margin of error will be allowed for annual benchmarks and 6-year targets in the Annual Review

* SUNO was closed due to impact of Hurricanes Katrina & Rita and was exempt from IPEDS and BoR reporting for SSPS

Attachment D 4-year university, 2-year college, technical college Year 5 Annual Report

System: University of Louisiana System
Institution: University of Louisiana at Lafayette
July 2015

GRAD Act Template for Reporting Annual Benchmarks and 6-Year Targets

Element Reference	Measure	Baseline Year/Term Data to include	Baseline data	Year 1 Benchmark	Year 1 Actual	Year 2 Benchmark	Year 2 Actual	Year 3 Benchmark	Year 3 Actual	Year 4 Benchmark	Year 4 Actual	Year 5 Benchmark	Year 5 Actual	Year 6 Target
1. Student Success														
a. *i. a.* Targeted	1st to 2nd Year Retention Rate	Fall 08 to Fall 09	75.9%	73-77%	73.3%	76.0%	73.4%	76.5%	74.3%	77.0%	74.3%	77.5%	76.3%	78.0%
	Actual Baseline Data:	*# in Fall 08 Cohort*	2545		2496		2830		2809		2646		2642	
		# retained to Fall 09	1931		1829		2078		2087		1966		2017	
ii. Targeted	1st to 3rd Year Retention Rate	Fall 07 cohort	62.4%	61-65%	63.8%	63.0%	61.8%	63.5%	60.7%	63.5%	61.3%	64.5%	62.4%	65.0%
	Actual Baseline Data:	*# in Fall 07 Cohort*	2662		2545		2496		2830		2809		2646	
		# retained to Fall 09	1660		1623		1542		1719		1721		1651	
iv. Targeted	Same Institution Graduation Rate	2008 Grad Rate Survey	40.2%	38.5-42.5%	42.2%	42.0%	39.6%	43.0%	41.4%	45.0%	43.9%	47.5%	45.0%	50.0%
	Actual Baseline Data:	*Fall revised cohort (total)*	2387		2576		2645		2730		2799		2691	
		completers <=150% of time	959		1086		1048		1131		1229		1206	
vi. Targeted	Award Productivity	2008-09 AY	0.16	0.16	0.16	0.165	0.167	0.17	0.171	0.175	0.181	0.18	0.189	0.19
	Actual Baseline Data:	*2008-09 undergrad FTE*	13264		13348		13645		13735		13368		13387	
		awards (duplicated)	2124		2138		2279		2348		2426		2527	
b. *i.* Targeted	Percent Change in program completers													
	Bachelors			0.7%	0.7%	1.3%	7.1%	1.7%	7.8%	2.3%	10.3%	2.8%	17.3%	3.3%
		2008-09 AY	2117	2132	2132	2145	2268	2153	2282	2166	2334	2176	2483	2187
	Post-Bac			N/A*	N/A*	N/A*	N/A*	N/A*	N/A*	N/A*	N/A*	N/A*	N/A*	N/A*
		2008-09 AY	0	1	1	19	0	21	52	23	80	24	34	26
	Masters			3.7%	3.7%	0.0%	2.9%	1.1%	-9.0%	2.1%	12.2%	3.2%	7.1%	4.2%
		2008-09 AY	378	392	392	378	389	382	344	386	424	390	405	394
	Doctoral			21.9%	21.9%	3.1%	-6.3%	6.3%	53.1%	9.4%	62.5%	12.5%	59.4%	18.8%
		2008-09 AY	32	39	39	33	30	34	49	35	52	36	51	38
d. *i. b.* Targeted	Passage rate on licensure exam in Education	2007-08 AY						98%	100%	98%	100%	98%	100%	98%
	Actual Baseline Data:	*# of students who took exam*							332		304		296	
		# of students that passed							332		304		296	
i. d. Targeted	Passage rate on licensure exam in Nursing (RN)	2008 Calendar Year						95%	95%	95%	100%	95%	96.9%	95%
	Actual Baseline Data:	*# of students who took exam*							132		127		130	
		# of students that passed							125		127		126	
2. Articulation & Transfer														
a. *i.b.* Targeted	1st to 2nd Year Retention Rate of Transfer Students (full time, bacc, soph)	2008-09 AY to Fall 09						76.0%	79.6%	76.3%	80.1%	76.5%	79.3%	76.7%
	Actual Baseline Data:	*# in AY 08-09 Cohort*							663		538		627	
		# retained to Fall 09							528		431		497	
3. Workforce & Economic Development														
b. *iii.* Targeted	# of programs offered through 100% distance ed.	January 1, 2013						4	8	6	10	8	12	9
c. *iii. b.* Targeted	Dollar amt research & development expenditures per research faculty	2004-2009 FYs						$154,000	$162,314	$158,000	$163,623	$161,000	$161,000	$162,500
4. Institutional Efficiency & Accountability														
d. *i.* Targeted	Percent of eligible programs that are discipline accredited	January 1, 2013						89%	93%	89%	90%	89%	93.1%	89%
	Actual Baseline Data:	*# programs*							69		72		72	
		# discipline accredited							64		65		67	

A margin of error will be allowed for annual benchmarks and 6-year targets in the Annual Review

* Percent change from baseline cannot be calculated from a baseline of 0

Attachment D 4-year university, 2-year college, technical college Year 5 Annual Report

System: University of Louisiana System
Institution: University of Louisiana at Monroe
July 2015

GRAD Act Template for Reporting Annual Benchmarks and 6-Year Targets

Element Reference	Measure	Baseline Year/Term Data to include	Baseline data	Year 1 Benchmark	Year 1 Actual	Year 2 Benchmark	Year 2 Actual	Year 3 Benchmark	Year 3 Actual	Year 4 Benchmark	Year 4 Actual	Year 5 Benchmark	Year 5 Actual	Year 6 Target
1. Student Success														
a. *i. a.* Targeted	1st to 2nd Year Retention Rate	Fall 08 to Fall 09	73.1%	71-75%	72.5%	73.5%	68.7%	73.5%	69.4%	74.0%	67.9%	74.0%	69.9%	75.0%
	Actual Baseline Data:	*# in Fall 08 Cohort*	1187		1276		972		1068		1281		1325	
		# retained to Fall 09	868		925		668		741		870		926	
ii. Targeted	1st to 3rd Year Retention Rate	Fall 07 cohort	55.1%	54-58%	56.7%	57.0%	54.6%	58.0%	55.6%	58.0%	53.8%	59.0%	53.6%	60.0%
	Actual Baseline Data:	*# in Fall 07 Cohort*	1401		1187		1275		972		1146		1281	
		# retained to Fall 09	772		673		696		540		616		686	
iv. Targeted	Same Institution Graduation Rate	2008 Grad Rate Survey	30.9%	27-31%	30.5%	30.0%	34.1%	31.0%	35.0%	32.0%	37.3%	34.0%	40.2%	36.0%
	Actual Baseline Data:	*Fall revised cohort (total)*	1056		1283		1474		1505		1425		1399	
		completers <=150% of time	326		391		502		527		531		562	
v. *Targeted*	Graduation Productivity	*2008-09 AY*						0.163	0.189	0.169	0.181	0.169	0.173	0.169
	Actual Baseline Data:	*2008-09 undergrad FTE*							6162.8		5935.4		5795.4	
		completers (undergrad)							1163		1073		1005	
vi. Targeted	Award Productivity	2008-09 AY	0.14	0.165	0.164	0.165	0.182	0.165	0.19	0.175	0.181	0.175	0.174	0.175
	Actual Baseline Data:	*2008-09 undergrad FTE*	6624		6742		6427		6162.8		5935.4		5795	
		awards (duplicated)	923		1104		1169		1171		1077		1007	
b. *i.* Targeted	Percent Change in program completers													
	Bachelors			16.4%	16.4%	2.4%	24.8%	4.8%	26.2%	7.2%	16.3%	9.6%	7.1%	12.0%
		2008-09 AY	878	1022	1022	899	1096	920	1108	941	1021	962	940	983
	Post-Bac			-100.0%	-100.0%	0.0%	-100.0%	100.0%	-100.0%	100.0%	-100.0%	200.0%	-100.0%	300.0%
		2008-09 AY	1	0	0	1	0	2	0	2	0	3	0	4
	Professional			-24.2%	-24.2%	0.0%	0.0%	0.0%	2.2%	-45.1%	-53.8%	-3.3%	-22.0%	0.0%
		2008-09 AY	91	69	69	91	91	91	93	50	42	88	71	91
	Masters			2.6%	2.6%	1.7%	-8.1%	3.4%	26.5%	5.0%	23.9%	6.7%	26.5%	9.0%
		2008-09 AY	234	240	240	238	215	242	296	246	290	250	296	255
	Doctoral			150.0%	150.0%	150.0%	80.0%	150.0%	0.0%	150.0%	100.0%	150.0%	160.0%	150.0%
		2008-09 AY	10	25	25	25	18	25	10	25	20	25	26	25
d. *i. b.* Targeted	Passage rate on licensure exam in Education	2007-08 AY						98.0%	100.0%	98.0%	100.0%	98.0%	100.0%	98.0%
	Actual Baseline Data:	*# of students who took exam*							81		179		98	
		# of students that passed							81		179		98	
i. d. Targeted	Passage rate on licensure exam in Nursing (RN)	2008 Calendar Year						89.5%	90.6%	89.6%	97.4%	89.8%	94.1%	90.0%
	Actual Baseline Data:	*# of students who took exam*							85		77		51	
		# of students that passed							77		75		48	
2. Articulation & Transfer														
a. *i.b.* Targeted	1st to 2nd Year Retention Rate of Transfer Students (full time, bacc, soph)	2008-09 AY to Fall 09						72.1%	74.4%	72.6%	77.7%	73.1%	77.0%	73.6%
	Actual Baseline Data:	*# in AY 08-09 Cohort*							433		394		305	
		# retained to Fall 09							322		306		235	
3. Workforce & Economic Development														
b. *iii.* Targeted	# of programs offered through 100% distance ed.	January 1, 2013						17	28	18	32	19	38	20
4. Institutional Efficiency & Accountability														
d. *i.* Targeted	Percent of eligible programs that are discipline accredited	January 1, 2013						90.9%	94.5%	90.9%	94.5%	90.9%	91.2%	90.9%
	Actual Baseline Data:	*# programs*							55		55		57	
		# discipline accredited							52		52		52	

A margin of error will be allowed for annual benchmarks and 6-year targets in the Annual Review

Attachment D 4-year university, 2-year college, technical college Year 5 Annual Report

System: University of Louisiana System
Institution: University of New Orleans
July 2015

GRAD Act Template for Reporting Annual Benchmarks and 6-Year Targets

Element Reference		Measure		Baseline Year/Term Data to include	Baseline data	Year 1 Benchmark	Year 1 Actual	Year 2 Benchmark	Year 2 Actual	Year 3 Benchmark	Year 3 Actual	Year 4 Benchmark	Year 4 Actual	Year 5 Benchmark	Year 5 Actual	Year 6 Target
1. Student Success																
a. *i. a.*	Targeted	1st to 2nd Year Retention Rate		Fall 08 to Fall 09	68.6%	63.6%	63.4%	65.0%	66.8%	65.5%	64.5%	66.5%	67.2%	67.5%	69.1%	69.5%
			Actual Baseline Data:	*# in Fall 08 Cohort*	1203		1218		1020		1044		856		842	
				# retained to Fall 09	825		772		681		673		575		582	
ii.	Targeted	1st to 3rd Year Retention Rate		Fall 07 cohort	52.4%	49.7%	49.4%	50.0%	50.2%	50.5%	54.9%	51.5%	48.0%	52.0%	53.4%	53.0%
			Actual Baseline Data:	*# in Fall 07 Cohort*	1030		1208		1218		1020		1044		856	
				# retained to Fall 09	540		597		611		560		501		457	
iv.	Targeted	Same Institution Graduation Rate		2008 Grad Rate Survey	22.0%	21.0%	21.0%	20.0%	20.0%	35.0%	38.1%*	26.0%	34.5%	28.0%	32.1%	30.0%
			Actual Baseline Data:	*Fall revised cohort (total)*	1685		1961		1782		215		951		1030	
				completers <=150% of time	372		409		356		82		328		331	
vi.	Targeted	Award Productivity		2008-09 AY	0.181	0.177	0.177	0.195	0.195	0.178	0.199	0.181	0.211	0.183	0.235	0.184
			Actual Baseline Data:	*2008-09 undergrad FTE*	7512.23		7617.8		7367.6		7067		6597		6097.1	
				awards (duplicated)	1356		1347		1435		1405		1390		1430	
b. *i.*	Targeted	Percent Change in program completers														
		Bachelors				0.6%	0.7%	1.5%	5.8%	0.6%	3.3%	1.0%	3.1%	1.5%	7.8%	2.0%
				2008-09 AY	1286	1294	1295	1305	1361	1294	1329	1299	1326	1305	1386	1312
		Masters				6.6%	6.6%	5.5%	24.6%	5.5%	26.2%	6.0%	25.7%	6.0%	5.5%	6.0%
				2008-09 AY	561	598	598	592	699	592	708	595	705	595	592	595
		Doctoral				33.3%	33.3%	-2.2%	-2.2%	0.0%	40.0%	0.0%	22.2%	0.0%	26.7%	2.2%
				2008-09 AY	45	60	60	44	44	45	63	45	55	45	57	46
d. *i. b.*	Targeted	Passage rate on licensure exam in Education		2007-08 AY						98.0%	100.0%	98.0%	100.0%	98.0%	100.0%	98.0%
			Actual Baseline Data:	*# of students who took exam*							105		143		127	
				# of students that passed							105		143		127	
2. Articulation & Transfer																
a. *i.a.*	Targeted	1st to 2nd Year Retention Rate of Transfer Students		2008-09 AY to Fall 09						61.4%	63.8%	61.6%	68.4%	61.8%	69.2%	62.0%
			Actual Baseline Data:	*# in AY 08-09 Cohort*							1225		994		1029	
				# retained to Fall 09							782		680		712	
3. Workforce & Economic Development																
b. *iii.*	Targeted	# of programs offered through 100% distance ed.		January 1, 2013						0	3	1	3	2	5	3
c. *i.*	Targeted	Percent of research/instructional faculty holding active research								18.2%	20.4%	18.3%	21.5%	18.4%	21.5%	18.5%
		and development grants/contracts		2009-10 FY												
			Actual Baseline Data:	# of faculty holding grants/contracts							383		349		339	
				total # of research/instructional FTE							78		75		73	
4. Institutional Efficiency & Accountability																
d. *i.*	Targeted	Percent of eligible programs that are discipline accredited		January 1, 2013						89.1%	96.0%	89.1%	98.0%	89.1%	95.7%	89.1%
			Actual Baseline Data:	*# programs*							50		49		47	
				# discipline accredited							48		48		45	

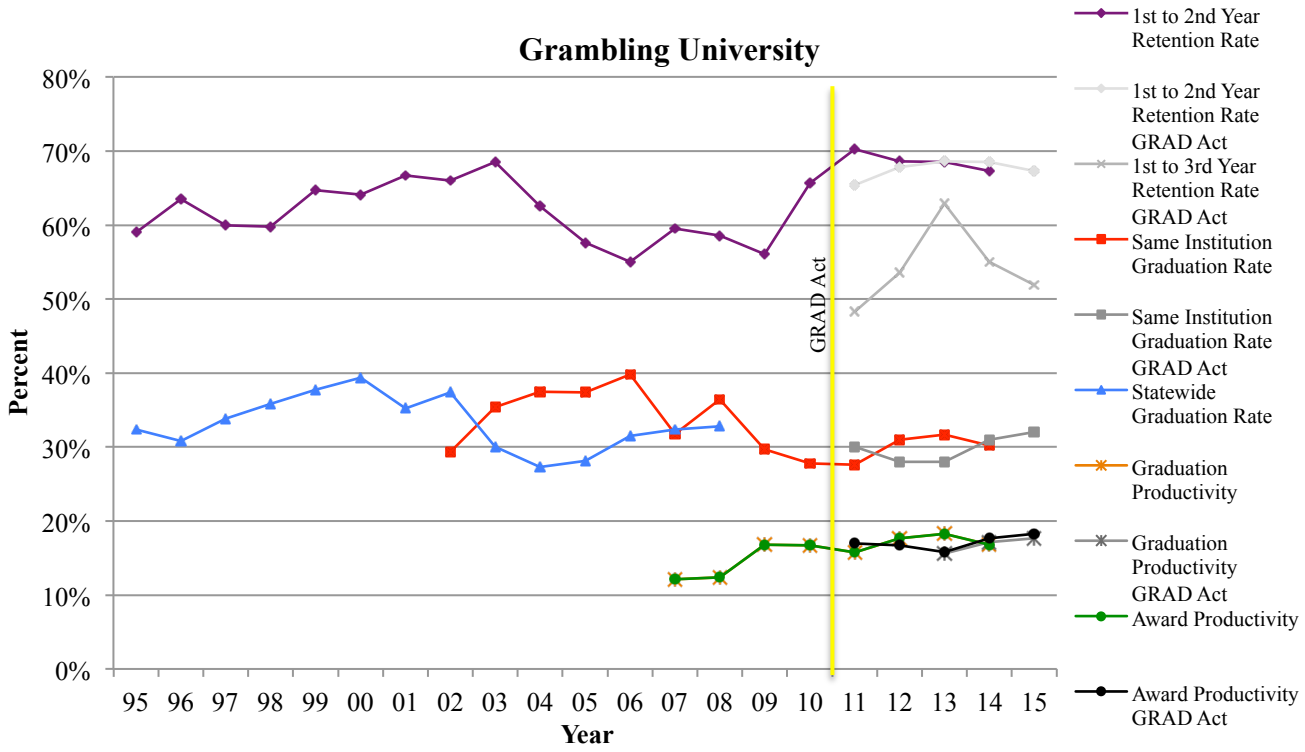
A margin of error will be allowed for annual benchmarks and 6-year targets in the Annual Review

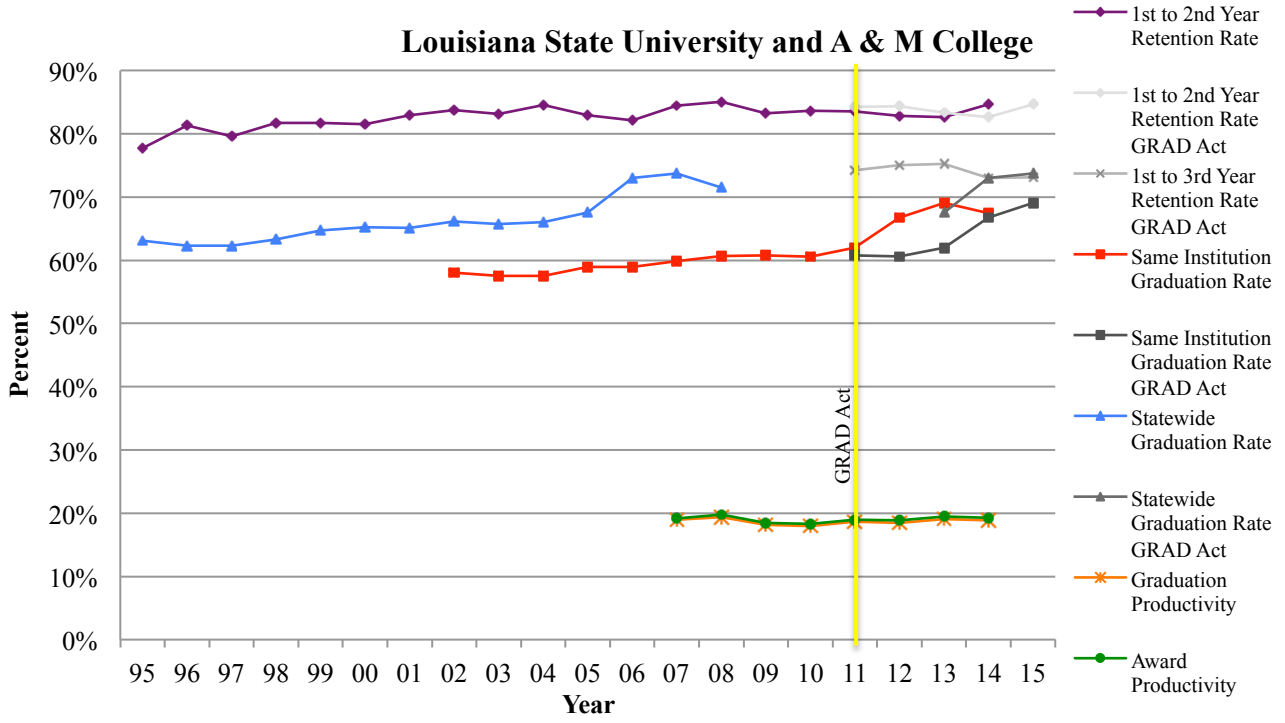
* UNO was impacted by Hurricane Katrina in 2005 & therefore submited an adjusted cohort for that year

Appendix C

Student Success Variables

Data sets for the study came from two primary sources. The first dataset was be acquired from the Louisiana Board of Regents. A combination or reports, documents, and publications were required to amass the data. The passage of the GRAD Act requires that all institutions report selected information directly to the Board of Regents each fiscal year. This information contains quantitative data regarding the performance indicators contained in the Act. Copies of each reporting year were downloaded for analysis. Institutional data tracked from the Statewide Student Profile System, the Louisiana Higher Education Fact Book, and Board of Regents reports were added for data points over time prior to and after the passage of the Act. Data was requested from the BoR. While a limited amount of the available data was acquired in CSV and Excel file format, most was in the form of PDFs. The data from the BoR available only in PDF format was manually added to SPSS and Excel where needed in order to complete the full dataset for all institutions for use in this study's statistical analysis. The following pages show line graphs for the Student Success measures reported by each institution in the study. Discussion and analysis of these figures and the reported measures appear in Chapter IV.


Grambling University
80%
70%
60%
50%
40%
30%
20%
10%
0%
Percent
95 96 97 98 99 00 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15
Year
GRAD Act
1st to 2nd Year Retention Rate
1st to 2nd Year Retention Rate GRAD Act
1st to 3rd Year Retention Rate GRAD Act
Same Institution Graduation Rate
Same Institution Graduation Rate GRAD Act
Statewide Graduation Rate
Graduation Productivity
Graduation Productivity GRAD Act
Award Productivity
Award Productivity GRAD Act


Louisiana State University and A & M College
90%
80%
70%
60%
50%
40%
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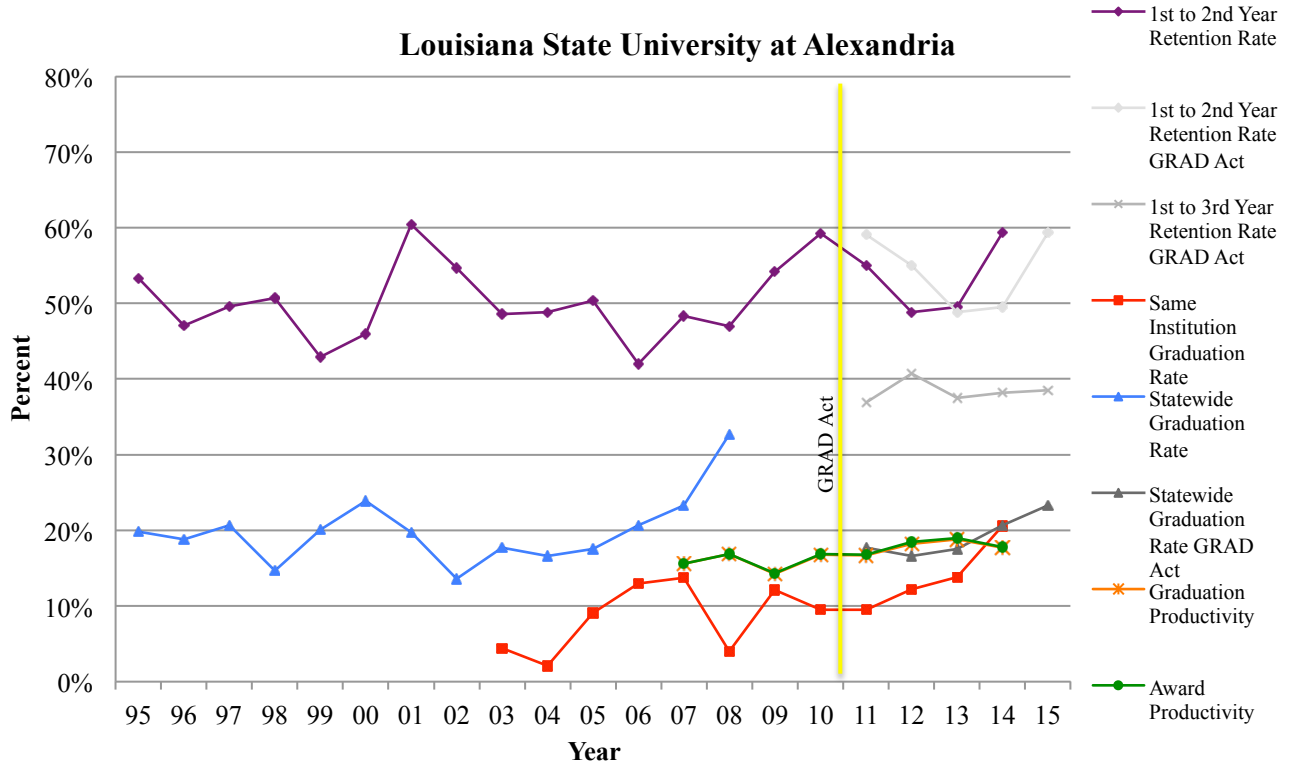
Percent
95 96 97 98 99 00 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15
Year
GRAD Act
1st to 2nd Year Retention Rate
1st to 2nd Year Retention Rate GRAD Act
1st to 3rd Year Retention Rate GRAD Act
Same Institution Graduation Rate
Same Institution Graduation Rate GRAD Act
Statewide Graduation Rate
Statewide Graduation Rate GRAD Act
Graduation Productivity
Award Productivity


Louisiana State University at Alexandria
80%
70%
60%
50%
40%
30%
20%
10%
0%
Percent
95 96 97 98 99 00 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15
Year
GRAD Act
1st to 2nd Year Retention Rate
1st to 2nd Year Retention Rate GRAD Act
1st to 3rd Year Retention Rate GRAD Act
Same Institution Graduation Rate
Statewide Graduation Rate
Statewide Graduation Rate GRAD Act
Graduation Productivity
Award Productivity

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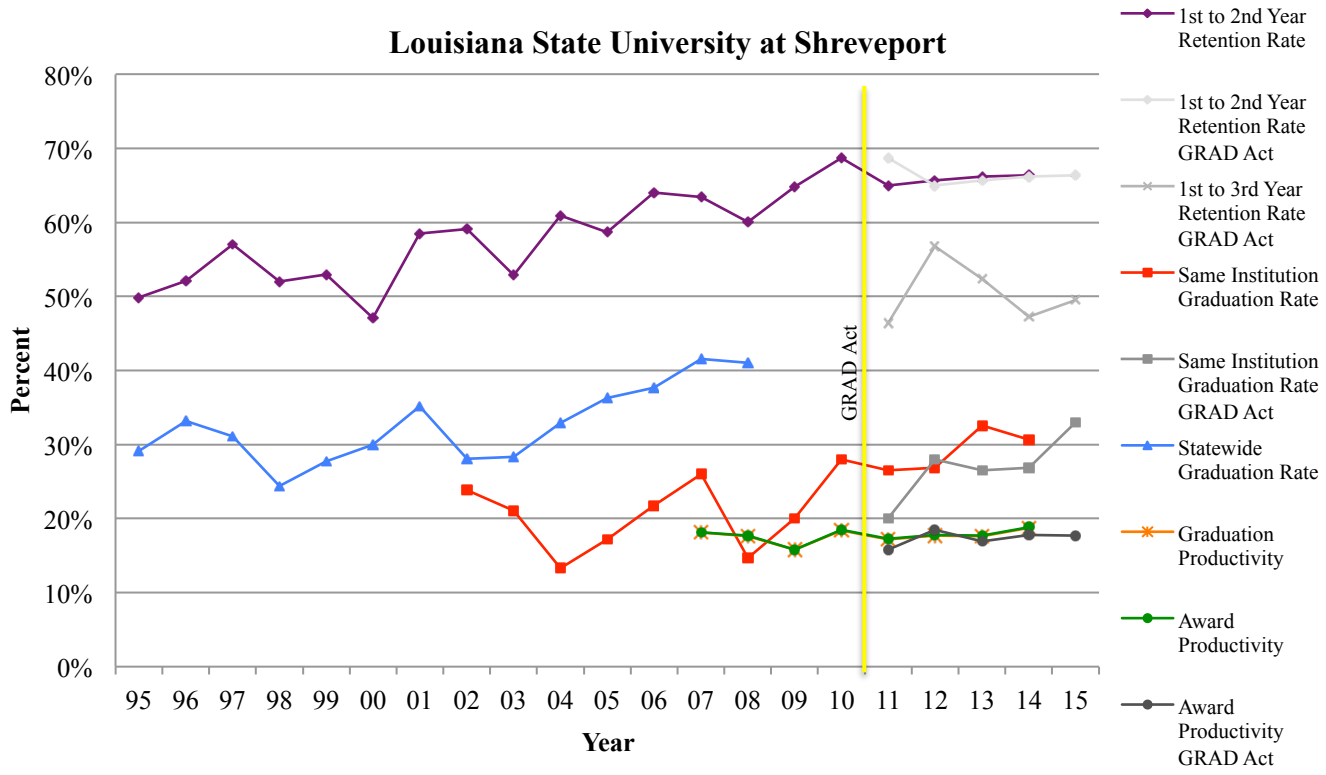
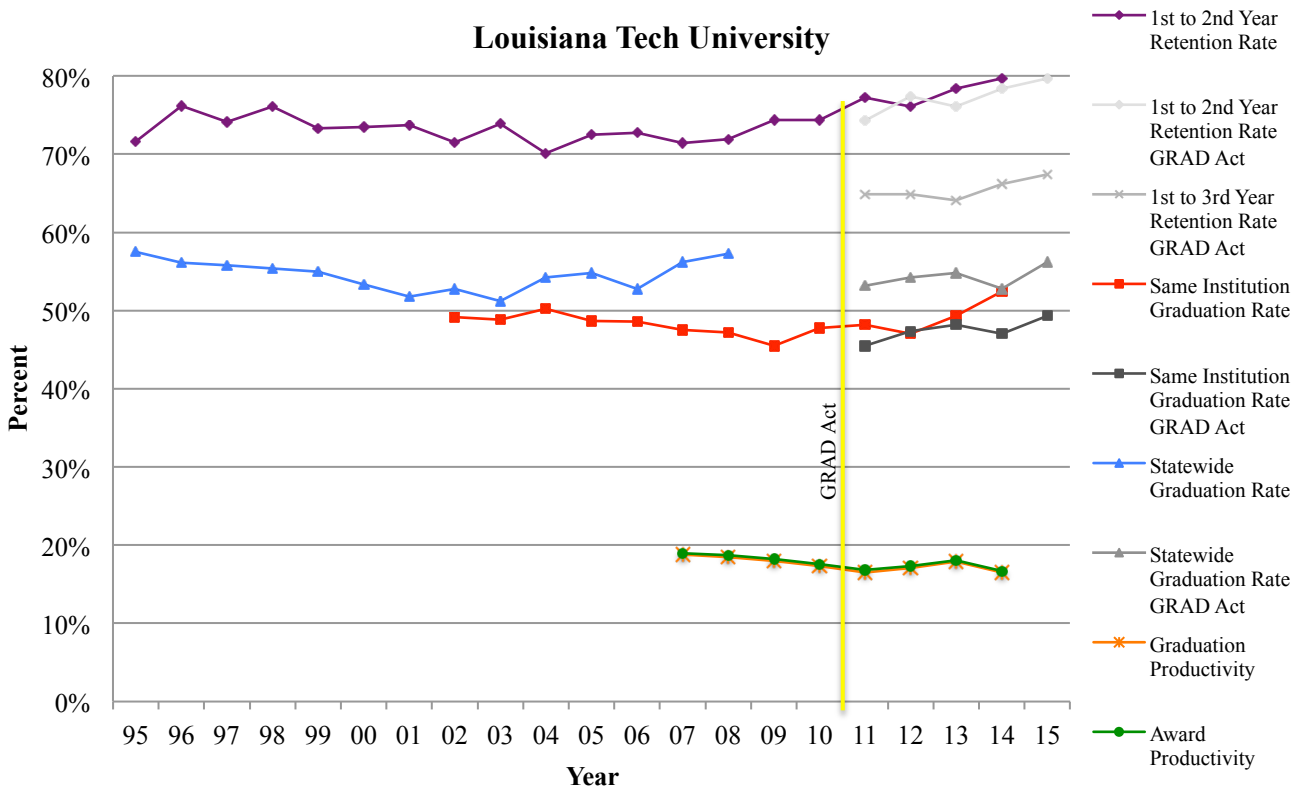
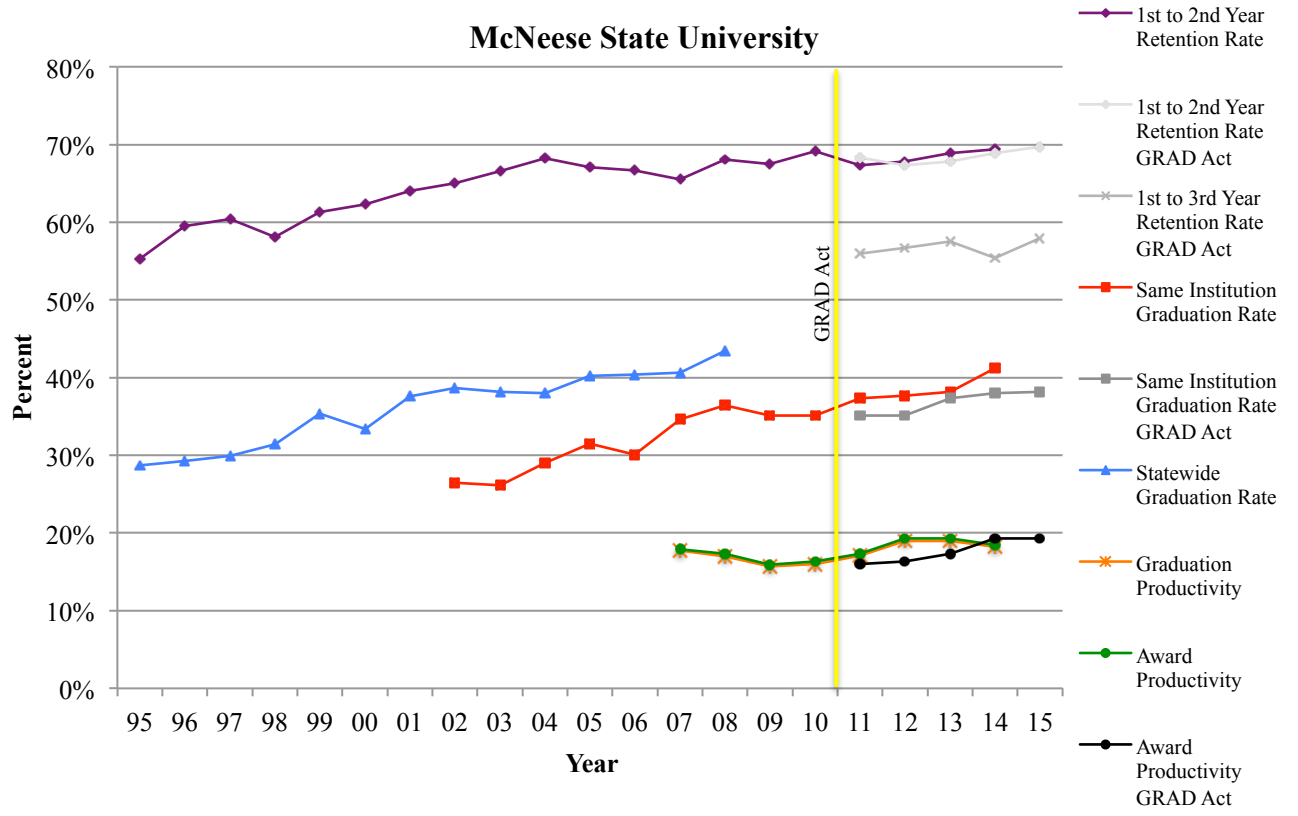
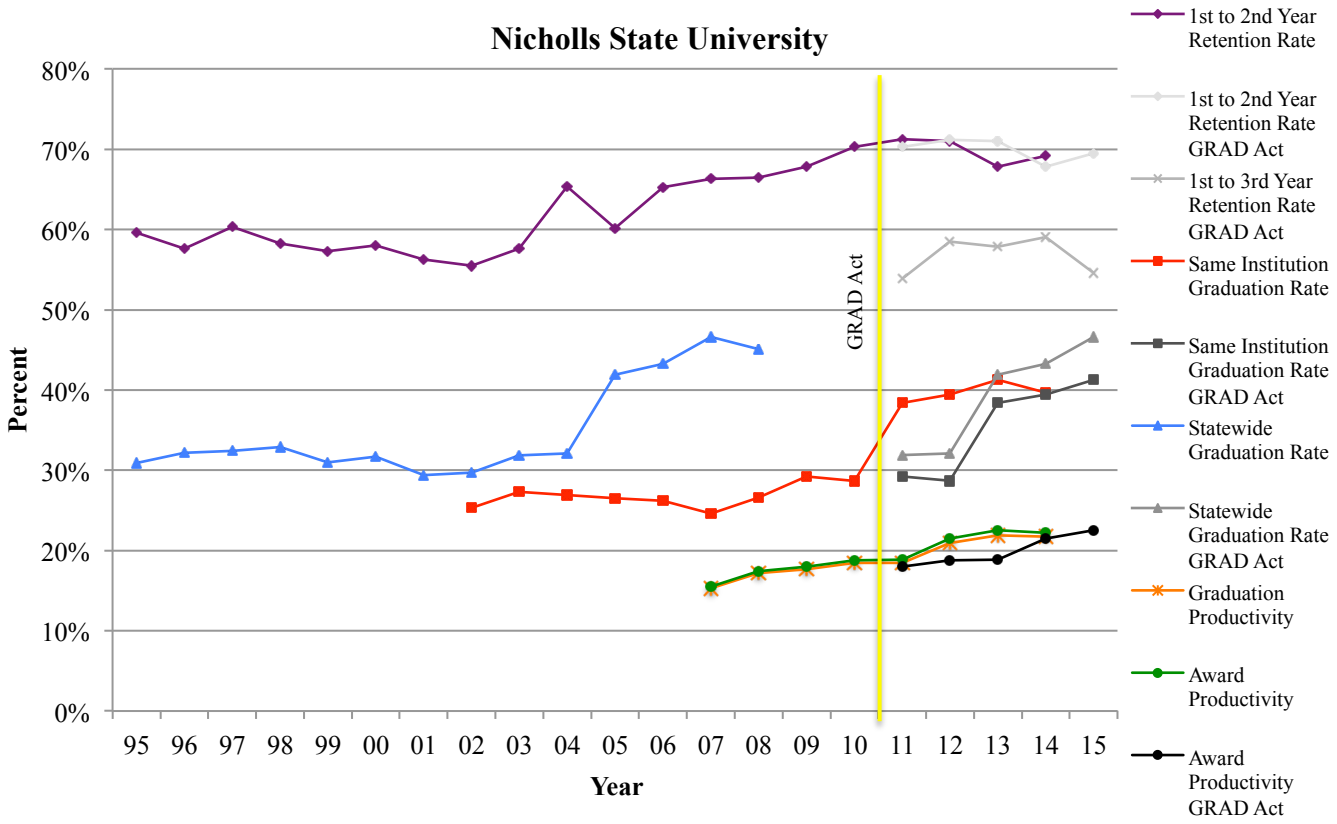

Louisiana State University at Shreveport
80%
70%
60%
50%
40%
30%
20%
10%
0%
Percent
95 96 97 98 99 00 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15
Year
GRAD Act
1st to 2nd Year Retention Rate
1st to 2nd Year Retention Rate GRAD Act
1st to 3rd Year Retention Rate GRAD Act
Same Institution Graduation Rate
Same Institution Graduation Rate GRAD Act
Statewide Graduation Rate
Graduation Productivity
Award Productivity
Award Productivity GRAD Act


Louisiana Tech University
80%
70%
60%
50%
40%
30%
20%
10%
0%
Percent
95 96 97 98 99 00 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15
Year
GRAD Act
1st to 2nd Year Retention Rate
1st to 2nd Year Retention Rate GRAD Act
1st to 3rd Year Retention Rate GRAD Act
Same Institution Graduation Rate
Same Institution Graduation Rate GRAD Act
Statewide Graduation Rate
Statewide Graduation Rate GRAD Act
Graduation Productivity
Award Productivity


McNeese State University
80%
70%
60%
50%
40%
30%
20%
10%
0%
Percent
95 96 97 98 99 00 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15
Year
GRAD Act
1st to 2nd Year Retention Rate
1st to 2nd Year Retention Rate GRAD Act
1st to 3rd Year Retention Rate GRAD Act
Same Institution Graduation Rate
Same Institution Graduation Rate GRAD Act
Statewide Graduation Rate
Graduation Productivity
Award Productivity
Award Productivity GRAD Act


Nicholls State University
80%
70%
60%
50%
40%
30%
20%
10%
0%
Percent
95 96 97 98 99 00 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15
Year
GRAD Act
1st to 2nd Year Retention Rate
1st to 2nd Year Retention Rate GRAD Act
1st to 3rd Year Retention Rate GRAD Act
Same Institution Graduation Rate
Same Institution Graduation Rate GRAD Act
Statewide Graduation Rate
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Graduation Productivity
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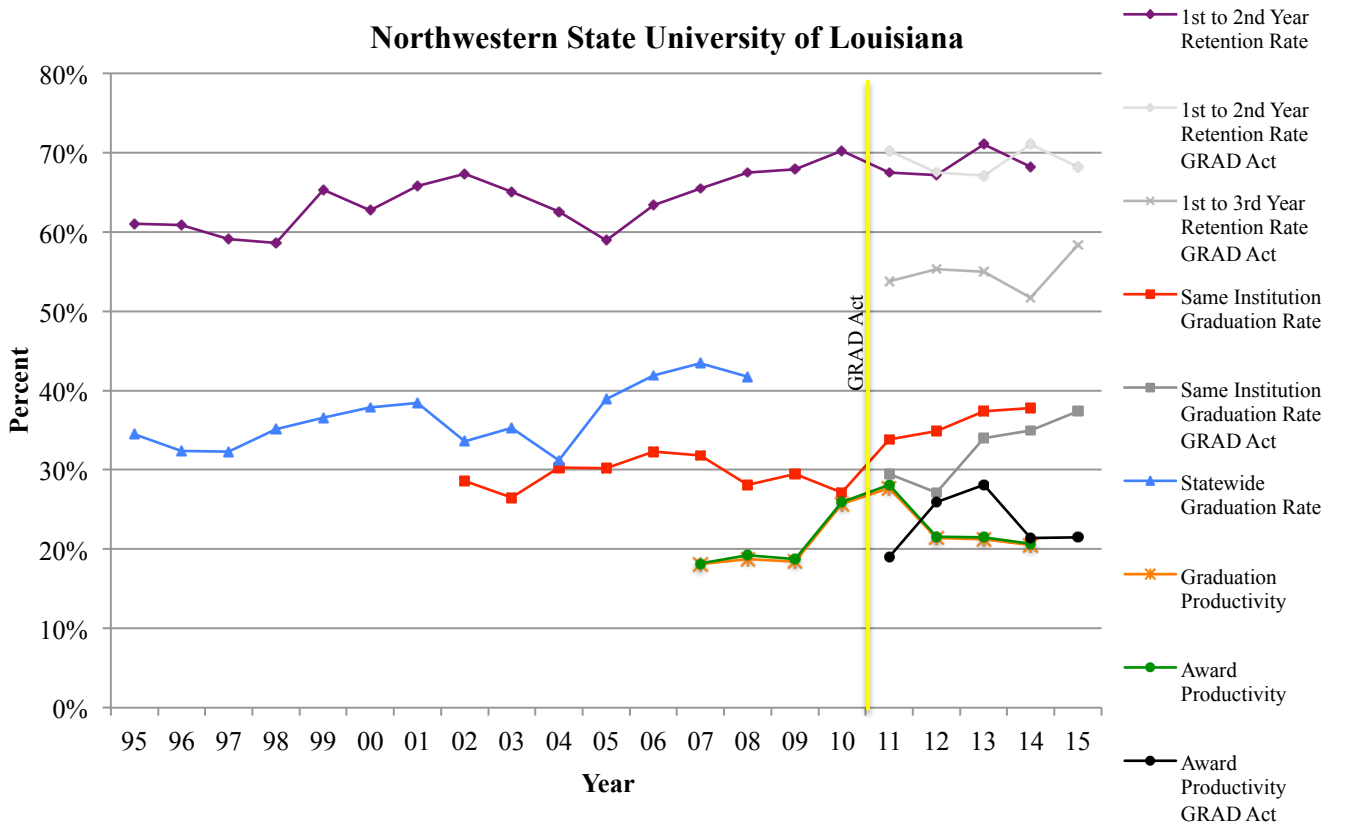
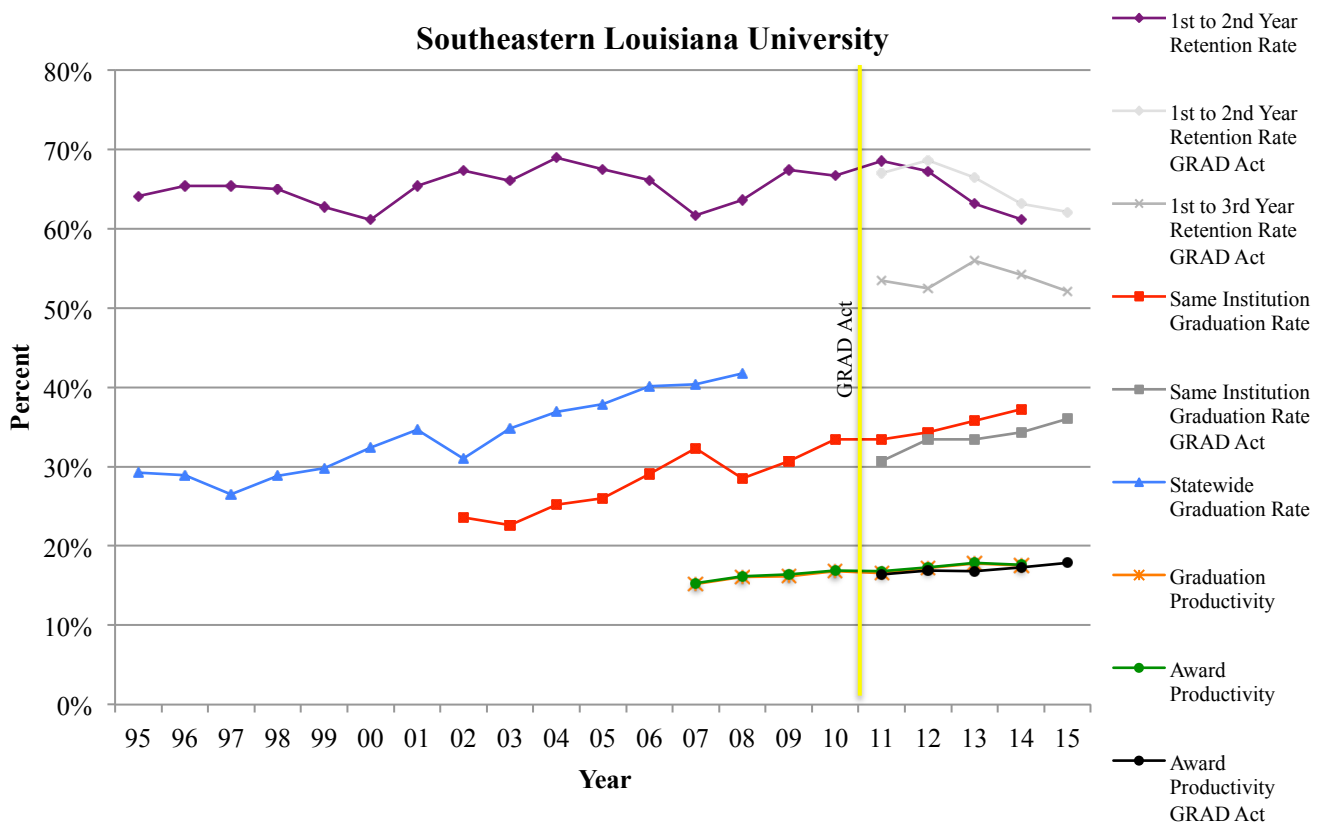
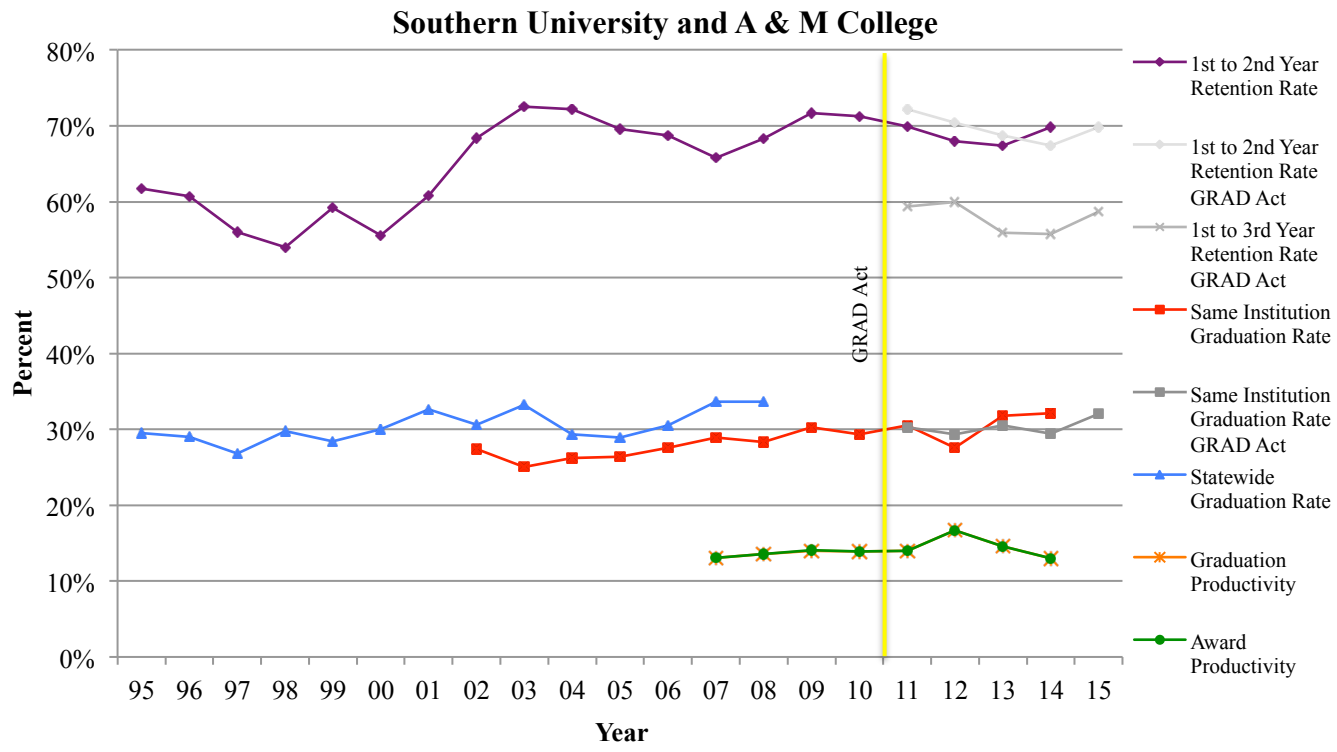

Northwestern State University of Louisiana
80%
70%
60%
50%
40%
30%
20%
10%
0%
Percent
95 96 97 98 99 00 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15
Year
GRAD Act
1st to 2nd Year Retention Rate
1st to 2nd Year Retention Rate GRAD Act
1st to 3rd Year Retention Rate GRAD Act
Same Institution Graduation Rate
Same Institution Graduation Rate GRAD Act
Statewide Graduation Rate
Graduation Productivity
Award Productivity
Award Productivity GRAD Act


Southeastern Louisiana University
80%
70%
60%
50%
40%
30%
20%
10%
0%
Percent
95 96 97 98 99 00 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15
Year
GRAD Act
1st to 2nd Year Retention Rate
1st to 2nd Year Retention Rate GRAD Act
1st to 3rd Year Retention Rate GRAD Act
Same Institution Graduation Rate
Same Institution Graduation Rate GRAD Act
Statewide Graduation Rate
Graduation Productivity
Award Productivity
Award Productivity GRAD Act


Southern University and A & M College
80%
70%
60%
50%
40%
30%
20%
10%
0%
Percent
95 96 97 98 99 00 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15
Year
GRAD Act
1st to 2nd Year Retention Rate
1st to 2nd Year Retention Rate GRAD Act
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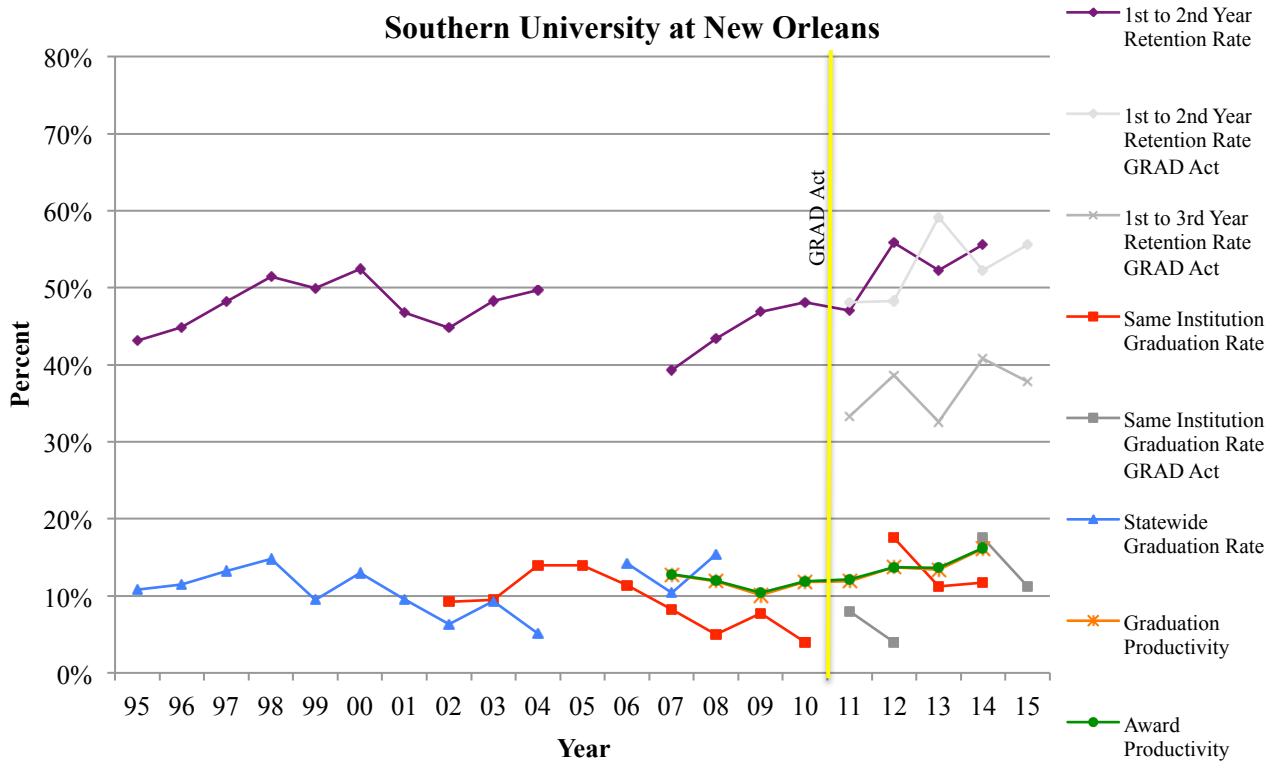
Same Institution Graduation Rate
Same Institution Graduation Rate GRAD Act
Statewide Graduation Rate
Graduation Productivity
Award Productivity


Southern University at New Orleans
80%
70%
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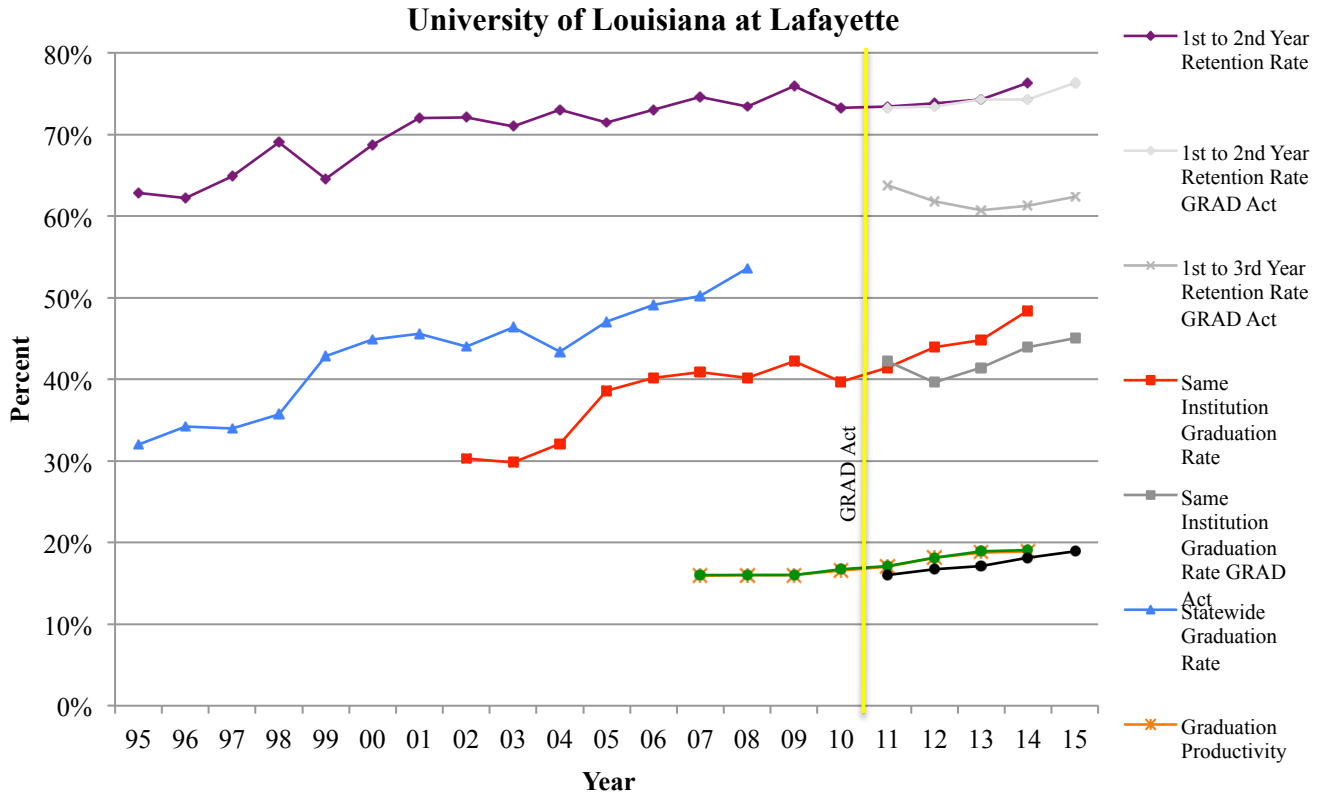
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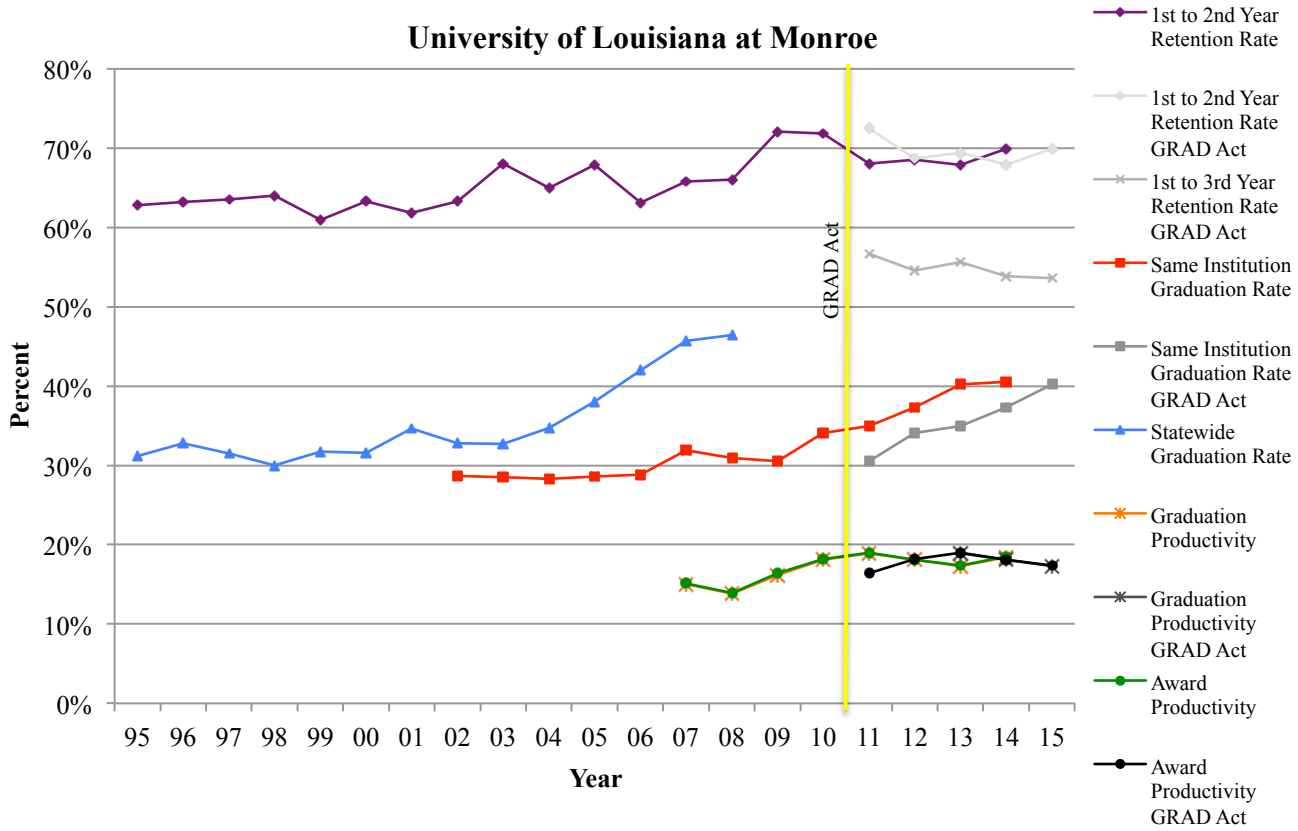
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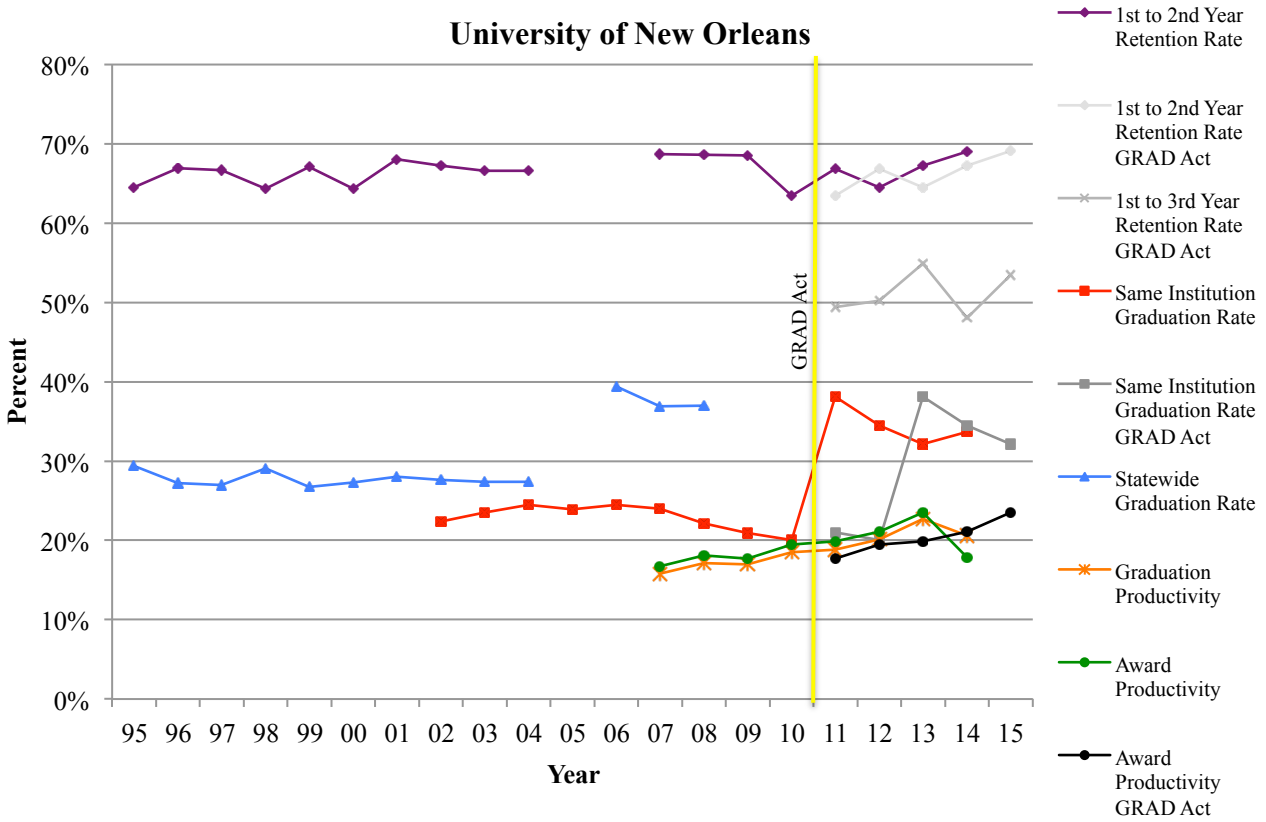
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Same Institution Graduation Rate
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Statewide Graduation Rate
Graduation Productivity
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Award Productivity GRAD Act

Appendix D

IRB Approval

Approval for this research was sough from the University of Alabama Institutional Review Board. The proposed research was granted approval On January 21, 2016. The following page contains the approval letter received by the researcher.

Office for Research

Institutional Review Board for the
Protection of Human Subjects

THE UNIVERSITY OF
ALABAMA
RESEARCH

January 21, 2016

Lee Lind
ELPTS
College of Education
The University of Alabama
Box 870231

Re: IRB # EX-16-CM-005 "Performance Funding in Louisiana: A Quantitative Analysis of the GRAD Act"

Dear Mr. Lind:

The University of Alabama Institutional Review Board has granted approval for your proposed research.

Your protocol has been given exempt approval according to 45 CFR part 46.101(b)(4) as outlined below:

(4) Research involving the collection or study of existing data, documents, records, pathological specimens, or diagnostic specimens, if these sources are publicly available or if the information is recorded by the investigator in such a manner that subjects cannot be identified, directly or through identifiers linked to the subjects.

Your application will expire on January 20, 2017. If your research will continue beyond this date, complete the relevant portions of Continuing Review and Closure From. If you wish to modify the application, complete the Modification of an Approved Protocol Form. When the study closes, complete the appropriate portions of FORM: Continuing Review and Closure.

Should you need to submit any further correspondence regarding this proposal, please include the assigned IRB application number.

Good luck with your research.

Sincerely,

[redacted]

Office for Research Compliance

358 Rose Administration Building
Box 870127
Tuscaloosa, Alabama 35487-0127
(205) 348-8461
FAX (205) 348-7189
TOLL FREE (877) 820-3066