

University of Nevada, Reno

Leadership Strategies in Managing a Budget Crisis

A thesis submitted in partial fulfillment of the required degree for

Master of Arts in Educational Leadership

By

Greg Bortolin

Dr Patricia Miltenberger/ Thesis Advisor

December, 2011

Copyright by Greg Bortolin 2011

All rights Reserved



University of Nevada, Reno
Statewide • Worldwide

THE GRADUATE SCHOOL

We recommend that the thesis
prepared under our supervision by

GREG BORTOLIN

entitled

Leadership Strategies in Managing a Budget Crisis

be accepted in partial fulfillment of the
requirements for the degree of

MASTER OF EDUCATION

Patricia Miltenberger, Ed.D, Advisor

Rita Laden, Ed.D., Committee Member

Joseph Crowley, Ph.D., Graduate School Representative

Marsha H. Read, Ph. D., Associate Dean, Graduate School

December, 2011

Abstract

Presidents at the University of Nevada, Las Vegas (UNLV) and University of Nevada, Reno (UNR) were forced to cut their budgets by 20% each from 2007 through the start of the 2011 legislative session. State formula funding fell more than 10% during this same period. Nevada's economy was hit as hard as any state in the country and these two leaders braced for a second wave of cuts in 2011. The Nevada System of Higher Education (NSHE) had to deal with a 4% enrollment increase while losing 9% of its state funded positions (NSHE, 2011c). The two university presidents argued against budget reductions in the state legislature saying higher education played a key role in workforce development and economic development. As the economic downturn was unfolding, UNLV produced a planning document that focused on education, infrastructure, and research to guide the critical decisions it would make to establish future priorities and deal with current budget reductions. UNR took a more straight-forward approach to the budget reductions, conducting a campus-wide curricular review of the program and budget eliminations and reductions. UNR focused on ensuring that it had protected its core programs and that the process was fair by giving key campus constituencies the opportunity to give feedback and the opportunity to defend their programs. The state budget reduction for NSHE since 2007 now stands at 25%.

Table of Contents

	Page
Abstract _____	i
Table of Contents _____	ii
CHAPTER I: Introduction _____	1
Background of the Study _____	1
Statement of the Problem _____	4
Purpose of the Study _____	5
Research Design _____	5
Significance of the Study _____	6
Limitations _____	7
Delimitations _____	8
CHAPTER II: Review of Literature _____	9
Historical Context _____	9
Theoretical Framework _____	11
The Business of Higher Education _____	12
Higher Education Budgeting Methods _____	14
Higher Education Cost Containment Issues _____	15
Nevada's Funding Formula _____	16
2011 Legislative Session _____	19
Organizational Leadership in a Time of Crisis _____	23
Summary _____	25

CHAPTER III: Methodology	27
Introduction	27
Research Design	27
Participants	28
Data Sources	28
Data Collection	29
Data Analysis	29
Summary	31
CHAPTER IV: Results	32
University of Nevada, Reno	33
Curricular Review	35
University of Nevada, Las Vegas	37
CHAPTER V: Discussion and Recommendations	45
Summary of the Study	45
Discussion	47
Recommendations	49
References	54
Appendix: Interview Guide	59

CHAPTER I

Introduction

Background of the Study

Heading into the 2011 Nevada Legislature, newly elected Governor Brian Sandoval proposed a 29.1% state appropriation reduction to the Nevada System of Higher Education (NSHE). Chancellor Dan Klaich testified at a pre-session hearing the impact such a proposal would have if approved and outlined the impacts of such a steep reduction. If approved, state support for NSHE would have seen its annual base budget reduced from \$557.9 million in fiscal year (FY) 2011 to \$395.5 million in 2013. NSHE employees would have experienced a 5% salary reduction, a 1% increase in their Public Employee Retirement System contribution, reduced health insurance benefits for existing employees, and no retiree health insurance benefits for new employees. More than 1,850 professional and classified staff faced the elimination of their positions. In addition, one-fifth of the graduate assistants, teaching assistants, and resident physicians would have lost their positions if the \$162.4 million in reductions happened (Nevada System of Higher Education Executive Budget Overview, 2011).

The proposed budget reductions were drastic; however, they are better understood with some historical context. This proposed budget submitted by the governor wound up being the worst-case scenario for NSHE. The governor, who sets the agenda for the legislature, was elected on a “no new taxes” pledge. He had inherited one of the worst tax revenue declines and highest unemployment rates in the nation. A state supreme court decision late in the legislative session led to a compromise between the governor and the legislature that allowed NSHE to prevent about half of the proposed state budget

allocation. This scenario, though, was real and clearly illustrated the framing of how leaders think and prepare.

The Nevada Legislature meets bi-annually, during odd numbered years and is limited to 120 days. During the 2007 legislative session, NSHE did not get everything it had hoped, but it was a productive session for higher education in spite of state revenues that had begun to decline. NSHE actually saw a biennial increase in state funding of \$15.8 million that was the result of the funding formula being increased by 1%. NSHE received a healthy increase of 14.5% in general fund appropriations over the previous biennium. NSHE employees received a 2% cost of living increase in the first year of the biennium and a 4% increase in the second year. This was a \$44.4 million increase in state general fund support. Professional positions were also awarded a 2.5% merit increase, worth \$25.9 million. The legislature also funded an additional \$30.4 million in fringe benefits increases. Non-formula budgets received \$324 million in appropriations, \$47 million more than NSHE received in the previous session. NSHE received another \$246.96 million in capital improvement projects (NSHE, 2007).

The 2007 and 2009 legislative sessions were drastically affected when the global financial and national economic crisis hit. Nevada's economy showed signs of a downturn in 2007 during which the construction industry shed nearly 8,000 jobs (Nevada Department of Employment, Training, and Rehabilitation, 2008). Notably, in the last five years, the number of Nevada construction jobs plummeted from 148,800 in June 2006 to 54,300 in March 2011, a decline of nearly two-thirds (Restrepo, Alastuey, Maddox, Martin, & Rosenthal, 2011). Tax revenues dipped 2.9% in FY 2008, but slipped 10.3% in FY 2009. Nevada's largest industry, gaming, posted revenue declines

in fiscal years 2008, 2009, and 2010. The steepest decline was 15.3% in 2009 (Restrepo et al., 2011). Nevada's largest revenue source, sales and use tax, mirrored gaming's performance in 2008, 2009, and 2010, posting a 13.5% decline in 2009. During the past five years, inflation-adjusted sales and use tax revenues plunged by more than 46%, wiping out all revenue growth since calendar year 2000 (Restrepo et al., 2011).

Although all state budgets were affected, NSHE experienced the largest budget reductions of any state agency. After two special sessions and the regular 2009 session, the University of Nevada, Las Vegas (UNLV) saw its general fund instructional appropriation cut \$17 million or 10%. The University of Nevada, Reno (UNR) saw its general fund instructional appropriation cut \$9 million or 7.3%. Between the 2007 legislative session and the 2011 session, UNLV's saw its general fund appropriation reduced by 25%. UNLV's state appropriation was \$169 million in 2009 and is now \$126.7 million in FY 2012. Meanwhile, UNR saw its general fund support drop 25.11% during the same time frame, falling from \$130.5 million in 2009 to \$97.7 million in 2012 (NSHE, 2011c). NSHE employees have not been granted cost of living or merit increases since the 2007 legislative session. In order to deal with the revenue shortfall, the 2009 and 2011 legislatures instituted furloughs for employees. In 2009, the legislature mandated that state employees take 12 furlough days instead of a 4.6% pay cut. In 2011, the legislature cut the required furloughs in half, but imposed a 2.5% permanent pay cut for all state employees. NSHE also saw its share of Nevada general fund appropriations drop from a high of 19.7% in 2005 to 15.3% in 2011 (NSHE, 2011c). Since the end of the 2007 legislative session, NSHE was faced with a budget crisis. The question became how the leaders of the two universities would respond to the crisis.

Statement of the Problem

State support for public institutions across the nation peaked in FY 2001 when per student support reached \$7,370 (in 2006 dollars). In the succeeding four years, however, enrollments grew by 14.4%, inflation increased by 14.2% and state support increased only 7.4%. Between 1970 and 2005, average tuition for four-year public institutions grew by 177% in constant dollars (Consumer Price Index) (Lingenfelter, 2007). The recession that began in 2007 has continued the downward trend of state funding for higher education. In FY 2009, appropriations per student fell by 4% due to the onset of the latest recession and declined to \$6,928 per student as states struggled with massive revenue shortfalls. Appropriations per student remained lower in FY 2009 (Consumer Price Index) than in most years since FY 1980 (State Higher Education Executive Officers, 2010).

Initially, public institutions were able to receive some relief from Congress, which passed the American Recovery and Reinvestment Act (ARRA) in February 2009. Fourteen states, including Nevada, used ARRA funds to supplement higher education budgets. The 2009 Nevada Legislature approved approximately \$92.4 million in ARRA state stabilization funding for NSHE in FY 2010. In spite of this federal safety net, NSHE saw a 12.5% decline in state funding in 2010. During the subsequent legislative session, the 2011 legislature did not have the luxury of using ARRA funds.

Presidents at UNLV and UNR were forced to reduce each of their institutional budgets by approximately 20% from 2007 through the start of the 2011 legislative session. In addition, state formula funding fell more than 10% during this same period (NSHE, 2011c). At the same time that higher education appropriations were being

reduced, there was a general feeling among the public that these cuts had a limited impact on the universities (Nevada System of Higher Education Executive Budget Overview, 2011). In contrast, NSHE was managing a 4% enrollment increase while losing 9% of its state funded positions (NSHE, 2011c).

The question became, in times of crises, how do higher education leaders respond to declining resources? There are many theories to answer this question, but research on how presidents construct their own leadership is limited and it is rare to have the opportunity to explore the thinking of institutional leaders in response to a crisis. This budget crisis has provided an opportunity to explore how leaders actually understand and respond to extreme financial difficulties.

Purpose of the Study

The purpose of the study was to explore how institutional leaders at two universities in one state understood and responded to declining resources. Presidents, provosts, and chief financial officers from UNLV and UNR were interviewed and asked when they first identified the initial budget crisis, what their most immediate concerns were and what resources they drew upon. They were asked what strategies they implemented and how they handled communications. They were also asked to reflect on what worked, what did not, and what they would do differently.

Research Design

This is a comparative case study of how the leadership of two research universities framed significant budget reductions, developed their priorities, and how they formulated their decisions to implement the most drastic budget reductions in the university system's history. The two cases are UNLV and UNR. In fall 2010, UNLV

had 27,737 students, 19,719 full-time equivalent (FTE) and 5,684 graduate students.

UNLV started as the southern branch campus of the University of Nevada in 1957 and today is the largest university in Nevada. In FY 2010, UNLV had 29% of NSHE's sponsored research, which totaled \$38 million. UNLV has Colleges and Schools of Business, Dentistry, Education, Engineering, Fine Arts, Health Sciences, Hotel Administration, Law, Liberal Arts, Sciences, and Urban Affairs (UNLV, 2011).

In fall 2010, UNR had 17,491 students, 13,289 FTE and 3,248 graduate students. UNR accounted for 50% of NSHE's sponsored research funding, totaling \$66 million. UNR has Colleges and Schools of Agriculture, Biotechnology and Natural Resources, Business, Education, Engineering, Journalism, Liberal Arts, Medicine, and a Division of Health Sciences (UNR, 2011).

One research question drove the study: How do presidents, provosts, and chief financial officers frame and develop a strategy to respond to a budget crisis?

Significance of the Study

This single case was selected due to the significant size of the budget reductions. The purpose of interviews conducted as part of elaborated case studies is to explore what happened, why, and what it means more broadly. The hope in an elaborated case study is to be able to generalize broader processes, to discover causes, and to explain or understand a phenomenon (Rubin & Rubin, 2005). While the study of a single state has limitations, it provides insight into leadership response to the crisis.

The NSHE was faced with the worst financial crisis in its history. Its two university presidents had to consider all options, which included the closing of entire colleges and the firing of tenured professors. It was also generally understood that this

economic crisis would not be easily “fixed” because of Nevada’s economic base and low tax rates. This crisis has provided an opportunity to frame leadership in a time of economic downturn. This study also sheds light on the leadership frames and the role that institutional maturity played in values during a time of crisis.

Limitations

By design, case studies are not generalizable. The purpose of a case study is to study “the particularity and complexity of a single case, coming to understand its activity within important circumstances” (Stake, 1995, p. xi). In this situation, the purpose of the study was to explore how the leaders framed their responses during a time of financial crisis at two publicly funded universities.

At the time of the interviews, research participants were dealing with a series of budget reductions and anticipating more. Although they were asked to reflect upon the first round of reductions, it became apparent that they were also thinking about implementation of the next round of budget reductions.

When the budget crisis first evolved, the employment of the president of UNLV was terminated by NSHE; he was not available for interview for the study. Additionally, the current UNLV provost declined to be interviewed because he said he was the subject of litigation. While these two individuals were not available for interviews, it is important to note that the current UNLV president was the provost when the crisis began and answered accordingly.

The researcher is an employee of NSHE at the Desert Research Institute in governmental affairs and was actively involved at the legislature and with the Board of Regents during budget hearings and this might bring bias in interpretation of the data.

Delimitation

This study had one identified delimitation. While the study was limited to the two public universities in Nevada, it is part of a larger study that examined similar issues in Nevada's community colleges. The author, however, focused on UNR and UNLV.

CHAPTER II

Review of Literature

Historical Context

The first major commitment of federal public funding for state universities came in the form of the Morrill Act of 1862, which provided land grants to states to develop public colleges and universities offering programs in applied and professional disciplines. The GI Bill in 1944 fundamentally changed public thinking about access to higher education and its role in American society with a major infusion of tuition funding for soldiers returning from World War II.

The Higher Education Act of 1965 established an even more explicit and direct federal interest in higher education, particularly in the establishment of federal student financial aid. By 1975, the public sector of higher education accounted for 77% of all full-time enrollments. While the federal government promoted the expansion of public higher education in the Morrill Act, and now plays a central role in financing student assistance and research, the states have been and remain the principal source of funding for instruction in public higher education (Lingenfelter, 2007).

Further, Lingenfelter (2007) reported state support for public institutions peaked in FY 2001 when per student support reached \$7,370. By 2005, it had declined to \$5,987. Net tuition costs rose from \$1,667 per year in 1980 to \$3,430 in 2005. As a result of these changes, students paid 37% of total educational costs in 2005, compared to 2% in 1980. To make up for the difference, average annual student loans during this period grew from \$1,039 to \$4,816. In 2005, tuition and fees at state research universities averaged \$6,172, but they varied from about \$3,000 in Florida to \$11,500 in

Pennsylvania. The average state provides about \$500 per FTE student in financial aid grants. Excluding funds designated for medical education, research, and agricultural extension services, the state support per student in higher education averaged about \$9,200, and most states fell between \$8,000 and \$11,000 per student in spending (Lingenfelter, 2007).

UNR's general fund state appropriation for FY 2011-12 was \$114.6 million, 20.31% less than the previous year. UNR's total revenue was \$176.6 million, 14.8% less than the previous year. The largest source of revenue that did not come from the state appropriation was registration fees, which totaled \$41 million. Other revenue sources included non-resident tuition, fees, county funds, federal funds, surcharge, investment income, and other miscellaneous categories. UNLV's general fund state appropriation for 2011-12 was \$135.0 million, 13% less than the previous year. UNLV's largest source of revenue outside the state appropriation was also registration fees, which totaled \$61.3 million. UNLV has the same other revenue sources as UNR, minus county and federal funds (NSHE, 2011a).

UNR reported nearly \$150 million budgeted for 2011-12 in its self-supporting budget, which includes tuition and fees. Additionally, the University of Nevada School of Medicine, intercollegiate athletics, statewide programs cooperative extension, agricultural experiment station, and the state health laboratory all had separate self-supporting budgets within UNR's total budget. The largest of these was the medical school with a budget of nearly \$39 million (NSHE, 2011b).

UNLV had a self-supporting budget of \$207 million, which includes tuition and fees. Additionally, UNLV's intercollegiate athletics, law school, and dental school have

separate self-supporting budgets. Both athletics and the dental school's self-supporting budgets each totaled about \$22 million. The self-supporting budgets are derived from student fees, sales service, indirect cost recovery, endowment/investment income, gifts, and other miscellaneous income (NSHE, 2011b).

Theoretical Framework

Bolman and Deal (2003) have described a four-frame theory of leadership. Leaders use these frames to make decisions. The four frames are structural, human resource, political, and symbolic. The structural frame goes beyond individuals to examine the social architecture of work. The focus is on structure, strategy, environment, implementation, experimentation, and adaptation. The human resource frame examines how people's needs are satisfied or frustrated at work. Organizations exist to serve human needs rather than the reverse. In this frame, the leadership style is support, advocacy, and empowerment. Finding a good fit between individuals and organizations leads to meaningful and satisfying work where organizations get the talent and energy they need to succeed. The political frame is organized around the basic skills of the effective organizational politician: setting agendas, mapping the political terrain, networking, building coalitions, and negotiating. Also important in the political frame are the four principles of moral judgment – mutuality, generality, openness, and caring – to offer guidance in dealing with ethically slippery political issues. The symbolic frame focuses on how humans make sense of the world in which they live, meaning that belief and faith are its central concerns. The four frames have been used to guide the analysis of the findings.

The Business of Higher Education

Trowler (2002) provides an example of the language of business applied to higher education:

The language of education through which we are asked to 'think in business terms' constitutes a new way of thinking about the relation of teacher and learner. It employs different metaphors, different ways of describing and evaluating educational activities. In so doing, it changes those activities into something else. It transforms the moral context in which education takes place and is judged successful or otherwise.... So mesmerized have we become with the importance of 'cost efficiency' and 'effectiveness' that we have failed to see that the very nature of the enterprise has been redefined.... Once the teacher 'delivers' someone else's curriculum with its precisely defined 'product', there is little room for that *transaction* in which the teacher, rooted in a particular cultural tradition, responds to the needs of the learner. When the learner becomes a 'client' or 'customer', there is no room for the traditional apprenticeship into the community of learners. When the 'product' is the measurable 'target' on which 'performance is audited', then little significance is attached to the 'struggle to make sense' or the deviant and creative response. (pp. 10-11)

Declining resources from the public sector have forced presidents to adopt good business practices. This has resulted in a greater emphasis on performance criteria in respect of public funds, including tight financial responsibility at all levels. The three common models in this area are efficiency, downsizing and decentralization, and excellence. Efficiency refers to an emphasis on greater productivity; doing more with less, target

setting and monitoring, auditing, a market-mindedness, and a shift from professional to managerial control. Downsizing and decentralization is the introduction of quasi-markets, in which activities are represented in financial terms using proxy measures, management by contract, delayering, market-testing, flexibility, devolved budgets, and individual agency within tight accountability frameworks. Excellence refers to either a culture of bottom-up empowerment and organizational development, or top-down cultural engineering through leadership and corporate unity and identification (Trowler, 2002).

The concept of running a university like a business is not new. In 1975, Cangemi conceded that the aims of business and education are different because business is profit oriented while education is dedicated to humanity. However, he found that business practices can apply to leadership in higher education. Effective leaders in higher education are not much different from those in business because they demonstrate competence, listen to others, expect negative feedback, and maintain contact with critics and use power and authority as sparingly as possible. Communications skills and having consistent values are cited as being important to strong leadership of an organization (Cangemi, 1975).

A study by Christensen and Philbrick (1993) pointed out that business schools in particular were unresponsive to customer and student needs. The schools lacked global vision and failed to emphasize quality. Christensen and Philbrick (1993) drew a correlation with the American auto industry, which failed to compete in Asian markets as a result of an unwillingness to adapt their products to Asian consumer's needs for fuel-efficient automobiles with right-hand steering wheels.

Recent austerity measures by the British government have targeted salaries of faculty and the costs of administration. Pears (2010) wrote an op-ed piece in the *Times Higher Education*, the leading higher education news publication in the United Kingdom, that took issue with the amount of money British universities spend on public relations and specifically the salaries of vice chancellors. Pears (2010) wrote that the problem with importing managerial techniques into universities – and into the public sector generally – is that it has centralized authority along business lines, but has not at the same time imported the checks that monitor performance and the balances to control managerial power. “Few vice chancellors have the skill or experience required for a position as a chief executive in the private sector, where conditions are more Darwinian and the job very different” (Pears, 2010, p. 42). Pears (2010) further states that universities are not businesses but rather they are charities required to educate and do research.

Higher Education Budgeting Methods

The two common budget techniques that are typically used by the states to address state and system budgeting are formula budgeting and base plus/minus budgeting. Formula funding was developed in an effort to establish “adequacy”, or what the budget “should be.” Formulas were established by examining actual costs, funding levels at peer institutions, or analytically developed standards for faculty workloads, building operations, libraries, and administrative support. Typically factored into these formulas are enrollments, space and instructional costs (Lingenfelter, 2007).

In contrast, the starting point for base plus/budgeting is funding in the current year. This approach factors in inflation, salary increases, program improvements,

productivity gains, or reallocation and changes in workload. This approach is considered simpler and more transparent than formula budgeting (Lingenfelter, 2007).

Higher Education Cost Containment Issues

Controlling costs for postsecondary education has become a critical topic. In an open letter to President-Elect Obama, 50 university presidents highlighted a number of key points (as cited in Immerwahr, Johnson, & Gasbarra, 2009). The country had fallen from first to 10th place in the percentage of population with a college degree at a time when the country was facing its stiffest global economic competition ever. African-American and Hispanic-Americans in secondary schools were demonstrating very low high school graduation rates. Public support for higher education was low. Tuition and fees were rising faster than the median family income. In a 2009 report, college presidents advanced the idea that higher education is a public good that benefits the entire society; therefore, public investment should be increased (Immerwahr et al., 2009).

State financial officers believed that emphasis of funding should be more tied to degree completion as opposed to the number of students enrolled. College financial officers focused on efficiencies that involve class size, teaching loads, and greater use of technology. Faculty focused on the declining quality and readiness of incoming students. Meanwhile the general public felt that colleges and universities could educate more students for the same amount of money without reducing quality (Immerwahr et al., 2009).

Six out of 10 Americans now say that colleges today should operate more like a business, focused more on the “bottom line” than on the educational experience of students. Further, the number of people who feel this way increased by five percentage

points from 2009 until 2010 and has increased by eight percentage points from 2007 (Immerwahr, Johnson, Ott, & Rochkind, 2010).

Institutional approaches to budget reductions are limited. Some of the more common examples are hiring freezes, across-the-board cuts, targeted reductions (travel, equipment purchases), and restructuring. Some of the useful strategies include sharing information, asking for feedback, using contingency funds first, asking for voluntary cutbacks, making few promises, cutting back on nonessentials, considering outsourcing, sharing resources, being consistent, and not being afraid to make difficult decisions (Barr, 2002). Relations between state government and higher education are likely to be especially strained because of four broad trends: escalating demands, severe economic constraints, the academy's inherent resistance to change, and instability of state political leadership (Altbach, Berdahl, & Gumpert, 2005).

Nevada's Funding Formula

The first funding formula adopted by the Nevada Legislature was in 1969, which defined a FTE student as taking either 16 undergraduate credits or nine graduate level credits (Richardson & Jessup, 1981). After calculating the number of faculty derived under the formula, the faculty number then determined the number of graduate assistants, the number of classified positions, the number of wage positions, operating expenses, and out-of-state travel funds. The legislature's Higher Education Advisory Committee recommended a budget based on 20 FTE students to one FTE faculty, which was enacted in the 1971 legislature. UNR faculty argued unsuccessfully that the University of Georgia study used to determine the 20-1 ratio did not take into account the level of degrees granted and that the formula should have been 16.7-1 as more appropriate for a

doctoral-granting university. This would have resulted in 59 more FTE faculty at UNR. The inclusion of graduate assistants in this formula cost UNR another 40 FTE faculty positions. Some relief was offered to UNR in 1977 when the School of Nursing was taken out of the calculation of the overall student-faculty ratio. To meet accreditation requirements, nursing was allowed to maintain a 7.5-to-1 ratio. In 1979, the legislature re-defined FTE as 15 credits, which resulted in UNR gaining 12 FTE faculty positions (Richardson & Jessup, 1981).

In 1999, Nevada's Legislature commissioned a funding of higher education study (Raggio, 1999). It conceded that Nevada might not be able to fund higher education to the amounts fully recommended by the formulas. The condition of establishing new formulas was that it would not increase immediate costs to the state but rather would help serve as an ideal benchmark and assure equity among institutions. It was this report that instigated a hold harmless provision allowing institutions to retain their base funding levels when the formula recommendations fell below the base amount. A weighted three-year rolling average of FTE was also introduced in this report. The formula determined the amount of academic support (number of positions) each unit of an institution would receive and the compensation for each position. Also determined by the formula were funding for student services, institutional support, operation and maintenance, graduate assistants, equipment replacement, maintenance, and library acquisitions. Research funding was not included in the funding formulas (Raggio, 1999).

The 1999 study conducted by MGT of America, Inc., was initiated by concerns that the funding formula favored UNR at the expense of UNLV. Charges of inequities in funding between UNLV and UNR ranged from just under \$800 to approximately \$3,000

per FTE student. The study concluded that UNR and UNLV are equitably funded when taking into account UNR's larger proportion of graduate and high cost programs such as the medical school and statewide programs such as the Nevada Bureau of Mines and Geology, Agricultural Experiment Station, and Cooperative Extension. At the same time, however, the study found that the narrowing of the gap between UNR and UNLV over time indicates that UNLV's instructional funding was not keeping pace with enrollment growth. UNLV's instructional cost structure was changing as the university was evolving into a doctoral granting institution. At the same time of this conclusion, MGT also made a recommendation that the Board of Regents should seek additional state funding from the state in the amount of \$24 million to address the funding inequities identified for UNLV, Community College of Southern Nevada (now College of Southern Nevada), Truckee Meadows Community College and Western Nevada Community College (now Western Nevada College) (MGT, 1999).

Nevada's explosive growth during the past two decades had guaranteed more funding coming into NSHE through the funding formula. Nevada was one of the fastest growing states in the nation. Between 2000 and 2007, Nevada's annual average growth was more than 78,000. By 2009, Nevada's annual growth had slowed to 28,000 (Nevada State Demographer, 2011). The combination of Nevada's recession and the decline in population growth greatly diminished the NSHE budget. While the formulas provided structure for funding, Nevada had never funded more than 85.5% of the funding formula and NSHE estimated that in FY 2011, it was funded at 74.1% (NSHE, 2011c).

2011 Legislative Session

In order to understand the decisions made on both campuses, it is important to have the context of the economic downturn and the political environment. Heading into the 2011 Legislature, Nevada was facing a \$1.8 billion or an astonishing 54% budget shortfall. Two obstacles made this figure even more imposing to overcome. First, Nevada is one of only a handful of states nationwide with no personal income tax and secondly, during his recent campaign, the current governor pledged not to raise taxes under any circumstances. The state's budget collapse can be attributed to sagging sales and gaming tax receipts as construction ground to a near halt and tourism activity slumped. A 2011 Brookings Institute study found that revenues in Nevada may not return to their previous peaks until the latter part of the decade, as the housing and tourism boom that preceded the recession is not likely to be repeated any time soon. As economic growth is slowly restored, sales tax growth is likely to be muted. Fewer homes will be built, consumers will increasingly purchase largely untaxed services, and the need to replenish household savings will dampen overall consumption spending. Meanwhile, Nevada has one of the least diversified tax systems in the country, and relies disproportionately on sales and gaming revenue (Murray, Clark-Johnson, Muro, & Vey, 2011).

As a backdrop to further challenges faced by NSHE during the 2009 and 2011 Legislative sessions, legislators believed that the state's citizens were reluctant to support tax increases, which exacerbates Nevada's narrow tax base. Another major hurdle to overcome in the 2011 session was that the federal stimulus package had made up 18% of state appropriations that would not continue into the next biennium (MGT, 2011).

The 2009 Nevada legislature commissioned a review of Nevada's Revenue Structure through a group it commissioned – the Nevada Vision Stakeholder Group – made up of government and business leaders from throughout the state. The two major recommendations that came out of this report were to increase the share of adults with at least a high school diploma or its equivalent and to allow public universities to retain a larger share of tuition and differentiate tuition for different schools and programs. It charged NSHE with developing a more skilled workforce and pointed out that Nevada falls behind all states and the District of Columbia in its high school graduation rate. The report also demonstrated a lack of commitment by Nevada to fund research and graduate education, which attract new businesses and stimulate entrepreneurial activity. Idaho and Wyoming are the only other states in the Mountain West region that do not have a research university classified by the Carnegie Foundation as an institution with “very high research activity.” The rankings are based on the number of doctoral degrees awarded and the level of research funding. Nevada lags every state except Louisiana and Wyoming when measured by research and development funding relative to gross state product (Moody's Analytics, 2010).

A supreme court decision near the end of the 2011 Legislature prevented the governor's proposal to transfer tax revenues from local governments. This gave the governor political cover to reverse himself in extending taxes passed in the 2009 legislative session that were scheduled to sunset heading into the 2012-2013 biennium. An uptick in the economic forum projections combined with tax revenues not allowed to sunset as a result of the supreme court ruling helped the legislature work with the governor to halve his proposed higher education budget reduction.

Dan Klaich, NSHE Chancellor, told legislators that the governor's original budget would have the following negative business consequences: NSHE institutions would likely end up on national watch lists for financial instability, bond ratings would be negatively impacted, potential for greater unionization would increase, and customer service would suffer with institutions unable to serve projected enrollment demand (NSHE, 2011a). Klaich said the governor's proposed cut would have taken a 73% tuition hike to fill the state appropriation funding gap. Klaich worked with the legislature to get a four-point plan compromise passed. It included an \$80 million budget cut, a 13% tuition hike, roughly a 5% salary cut of faculty and staff in addition to a budget gimmick that pushed payroll from the last day of the month to the first day during the second year of the biennium. The result was a \$23 million one-time savings. These actions came on top of a state general fund decrease of 20% to NSHE from the previous biennium (Nevada System of Higher Education Executive Budget Overview, 2011).

In an address to the Nevada Legislature Committee of the Whole on April 22, 2011, Klaich said Nevada's campuses implemented budget reduction plans aimed at protecting faculty and classes for students. Cuts were made in capital equipment, maintenance, support services, and administration to protect the critical classroom functions. In the process of protecting faculty, Klaich said it was also a priority to protect research. He told legislators that this strategy of preserving access and the quality of the student educational experience might have backfired because ordinary Nevadans had the general opinion that there was no impact at all to the budget cuts. The reality of losing nearly 20% of its general fund appropriations was NSHE being left to deal with a 4%

enrollment increase while losing 9% of state funded positions heading into the 2011 session.

In response to the governor's proposed budget, Klaich developed a message of reform in academics, finance, and administration. His strategy to stave off deep cuts was an attempt to align the goals of NSHE with that of the state legislature which would produce more graduates in less time, produce more sponsored research, and move the campuses to market based fees. He also proposed creating differential fees for select programs with authority to direct the spending of those fees where they are generated, create a stabilization fund, and establish a continuous review of all processes and programs for maximum efficiency and effectiveness. Klaich also proposed establishing structures that align the goals of the state, higher education, and private business to assist economic development and diversification; and finally, to intensify partnerships with K-12 and others in public education (Nevada Legislature Committee, 2011).

In Nevada, higher education received healthy budget increases under the transformational leadership of Governor's Richard Bryan, Robert Miller, and Kenny Guinn. That trend came to an end under the past two governors, Jim Gibbons and Brian Sandoval, who can be defined as transactional leaders, who won votes by promising "no new taxes" (Northouse, 2010).

When Nevada's Democratic leaders in the 2011 Legislature, Senate Majority Leader Steven Horsford and Assembly Speaker John Ocegüera, rolled out their response to Governor Sandoval's proposed budget on May 5, 2011, they specifically said that significant reductions in funding for the state's colleges and universities would decrease access and make Nevada less competitive from an economic standpoint. The three-part

plan they proposed included the creation of a Nevada Transaction Services Tax, which did not get much traction, but will certainly be reintroduced in the next legislature.

Horsford and Ocegüera (2011) made the case that there appears to be a strong argument for raising taxes in Nevada. Only Alaska has a lower tax burden than Nevada, with residents paying just 7.5% of their income on state and local taxes. Nearly half of all state tax revenue comes from non-residents in Nevada. According to the Tax Association's State Business Tax Climate Index, Nevada has one of the most favorable environments for business, as it is one of the four states to levy no corporate tax at all (Stockdale, Sauter, & McIntyre, 2011).

Organizational Leadership in a Time of Crisis

Research on how presidents construct their own leadership is limited. Eddy (2005) uncovered three themes of leadership in a study of community college presidents. This study involved the interviewing of nine community college presidents. The first theme identified how the presidents' underlying mental maps guided decision making and leadership on campus. The second theme linked the basic cognitive orientation of the presidents with on-going situated cognition in their new work settings. The final category highlighted the dynamic and changing nature of the presidents' leadership role. Eddy (2005) wrote that during times of fiscal exigency, power tends to center with the president.

Historically, state and federal budget reductions and student tuition increases at colleges and universities resulted in campuses "hunkering down," making the role of the college president even more a center of campus attention. Eddy's (2005) conceptual framework of her research is based on the seven properties of Weick's (as cited in Eddy,

2005) model for sense making: identify construction, retrospective nature of sense making, enactment, social interaction of organizational members, ongoing nature of sense making, extracted cues, and the notion of situations being interpreted as the plausible versus accurate.

With constricting public resources, budget matters have never been more critical for presidents in leading public universities. While universities can always improve efficiencies and best business practices, universities are not a business in the sense of producing a product and generating income. While earlier research focused primarily on the college president, during the last 20 years, research has focused on leaders throughout the institution – deans, department chairs, and directors (Kezar, Carducci, & Contreras-McGavin, 2006). More recent studies have embraced a social constructivist view of leadership, in particular research from a cultural and symbolic perspective and work in a cognitive framework. Recent research on university presidents shows a shift from heroic images of individuals who were distant from their followers, acquired resources, wielded power and influence, and acted in political ways to effective leaders being more collaborative, sharing power and balancing their orientation to people and tasks (Kezar et al., 2006).

Montez (2003) developed an instrument for assessing five dimensions of leadership behaviors and competencies in higher education that included: integral, relational, credibility, competence, and direction or guidance. Montez's (2003) instrument builds on the literature in higher education leadership and is distinctive from other assessment tools developed in the business and nonprofit sectors. It is difficult to

imagine a for-profit business where these concepts, not to mention the concept of shared governance, would receive such emphasis.

Perhaps overly simplistic, style has much more value on a college campus than the bottom line or any measurement of profit. Fisher and Koch (as cited in Kezar et al., 2006) assert that “a president who possesses legitimate power, judiciously punishes and rewards, demonstrates expertise, maintains appropriate distance, and develops charisma and public presence is especially likely to be a success” (pp. 106-107). Another example was a study conducted by Neumann (as cited in Kezar et al., 2006) of two campuses in financial crisis examining followers’ and the college president’s perceptions and interactions. The results showed a contrast between one college president, who in times of financial strain focused on what she thought matter most to faculty (e.g. good teaching) rather than placing fundraising and expenditures at the heart of her leadership. Neumann deduced that leaders need to consider people’s understandings and commitments, not just the “objective” problem at hand (as cited in Kezar et al., 2006).

Summary

The Morrill Act of 1862 and the Higher Education Act of 1965 played major roles in prioritizing funding for state higher education institutions. State support for public institutions peaked in 2001. While public support for higher education is declining, tuition and fees are rising faster than median family incomes. Students paid 37% of their education costs in 2005, up from 2% in 1980. Declining resources from the public sector have forced presidents to adopt good business practices. State financial officers believe the emphasis of funding should be more tied to degree completion as opposed to the number of students enrolled. The two most common budget techniques used in higher

education are formula funding and base plus/minus budgeting. Nevada first defined a full-time equivalent student as taking 16 undergraduate credits or nine graduate credits in 1969. The legislature recommended 20 FTE students to one FTE faculty in 1971.

CHAPTER III

Methodology

Introduction

The purpose of the study was to explore how institutional leaders at two universities in one state understood and responded to declining resources. Presidents, provosts, and chief financial officers from UNLV and UNR were interviewed and asked when they first identified the initial budget crisis, what their most immediate concerns were and what resources they drew upon. This crisis has provided an opportunity to frame leadership in a time of economic downturn. Using Bolman and Deal's (2003) four frames of leadership, this study also sheds light on the leadership frames and the role that institutional maturity played in values during a time of crisis.

Research Design

This is a comparative case study of how the leadership of two research universities framed significant budget reductions, developed their priorities, and how they formulated their decisions to implement the most drastic budget reductions in the university system's history. This case study relied primarily on human perception and understanding. It was interpretive, it was situational, and it was personalistic (Stake, 2010). The case study was a way of organizing social data for the purpose of viewing social reality. It examined a social unit as a whole. The unit may be a person, a family, a social group, a social institution, or a community. The purpose was to understand the life cycle or an important part of the life cycle of the unit. The case study probed deeply and analyzed interactions between the factors that explain present status or that influence

change or growth. It was a longitudinal approach, showing development over a period of time (Best & Kahn, 2006).

Participants

The presidents, provosts, and chief financial officers at UNLV and UNR were recruited to participate in this study. These three positions were the primary decision makers in the strategies that were developed for the series of budget reductions that both institutions faced. They were also asked to reflect on what worked, what did not, and what they would do differently.

Neal Smatresk and Gerry Bomotti from UNLV were interviewed. Smatresk began his career at UNLV as the provost and is currently the president. Bomotti is the senior vice president for finance and business. Milt Glick, Marc Johnson, Ron Zurek, and Bruce Shively from UNR were interviewed. Glick was the president at the time of the study; Johnson was the provost, and Zurek the vice president for administration and finance, and Shively the associate vice president for planning, budget, and analysis.

Data Sources

Two sets of data were collected for this study - documents and interviews. Critical documents reviewed from UNLV were its institutional planning documents “Focus: 50 to 100, Celebrating 50 Years. Planning the Next 50 Years” (UNLV, 2007-10). These documents gave insight into the framework UNLV developed for future planning purposes and proved to be valuable in dealing with the severe state budget reductions. Critical documents reviewed from UNR were those chronicling its curricular review process defined by the UNR Bylaws, which guided the decisions made in the budget cutting process.

A set of guiding questions were developed. The Educational Leadership faculty at UNR, who are experts in qualitative research, and two graduate research assistants, reviewed them. The interview questions focused on the budget period after the 2007 Nevada legislative session until the start of the 2011 session (See Appendix).

Data Collection

This study was a component of a larger research study. Upon approval by the university's Institutional Review Board, arrangements were made to interview the participants. The thesis researcher interviewed the leadership teams at UNR and UNLV. The interviews each lasted approximately one hour and were audio recorded for later verbatim transcription. Each participant was interviewed separately in his office. Zurek asked Shively, UNR's associate vice president for planning, budget and analysis, to sit in on the interview to provide additional information. Michael Bowers, UNLV's provost, declined to be interviewed because of pending legal action.

Data Analysis

All transcripts were initially reviewed to identify general themes. At this point it was apparent that the development of the master plan and the curricular review were of utmost importance at the two institutions. Documents were reviewed to gain a deeper understanding of the themes and provide a window into the process at each institution. Specifically, "Focus: 50 to 100, Celebrating 50 Years. Planning the Next 50 Years" (UNLV, 2007-10) proved valuable in understanding the framework UNLV developed for future planning purposes. It was not initially intended to be a roadmap for dealing with budget reductions, but in the end provided benchmarks for the university in making critical budget decisions.

This document set out to define UNLV's unique identity and values that could, in turn, guide its investments and inform and improve its education and research programs.

This comprehensive planning process hoped to achieve the following:

- Create a shared understanding of UNLV's current status.
- Address major challenges and identify major opportunities.
- Build community and a common vision for UNLV.
- Enhance UNLV's educational effectiveness and improve student learning and success.
- Improve UNLV's national and international reputation and rankings.
- Establish select areas to build programmatic excellence.
- Better serve Southern Nevada and aid economic diversification for Nevada.
- Align decision making and budgeting with UNLV's educational and research goals, aided by appropriate performance metrics.
- Increase community and legislative support.
- Gain research focus and establish a cooperative research agenda.

A major portion of UNLV's 50-year anniversary wound up being the creation of a future master plan that was being implemented much sooner than anyone had envisioned.

Meanwhile, UNR had reorganized major portions of its structure during the past decade. For example, the College of Arts and Sciences was split into two. The College of Health and Human Sciences was now the Division of Health Sciences, which was placed under the authority of the Vice President for Health Sciences, who also oversaw the Medical School.

Critical documents reviewed from UNR were its bylaws, which defined its curricular review process and guided the decisions made in the budget cutting process:

Before any recommendation is made by the President concerning the creation, abolition, transfer, or any substantial alteration in the mission, function, structure, or location of units, formal consultation shall occur with: 1) the faculty of that unit and other faculty that may be directly affected, 2) the dean or designated administrator concerned, and 3) the Faculty Senate. Review by the Faculty Senate will be conducted in accordance with Faculty Senate Guidelines and Procedures for the Review of Changes in Organization (UNR, 2009, p. 5)

In order to follow this procedure, UNR established deadlines for written proposals to be submitted by those affected in by layoffs for curricular reasons, program elimination, reorganization, or reduction that had to be submitted to the provost. Each dean established a College Review Committee to review each affected department's response to proposed actions. The Faculty Senate also established a Faculty Senate Review Committee to review all department responses and college recommendations. The president and provost then reviewed these recommendations before making final decisions for Board of Regents' approval.

Summary

This chapter restated the purpose of this research and presented the research questions. The participants were chosen for the comparative case study, ensuring equal representation from each institution. The data collected from each institution was critical in helping to identify the leadership frames of each institution.

CHAPTER IV

Results

In recent years, the emphasis on sound business practices has been applied in higher education because of declining public resources. In this context, the presidents, provosts, and chief financial officers from UNLV and UNR were interviewed about the budget reductions that came after the 2007 Nevada Legislative session. Both universities have seen their state appropriation budgets reduced by 25% since FY 2009 (see Table 1) (NSHE, 2011).

Table 1

Annual Legislative State Appropriations (dollars)

	Year			
	2007-08	2008-09	2010-11	2011-12
UNR	134,696,102	144,152,936	124,085,141	105,444,645
School of Medicine	34,390,775	36,333,039	30,287,538	25,657,522
Athletics	6,763,868	7,054,213	5,850.60	4,563,490
Statewide Programs	8,405,103	8,892,041	5,869,348	4,289,701
Cooperative Extension	9,243,751	9,976,270	8,247,636	6,293,211
Agricultural Experiment Station	9,131,231	9,686,428	8,030,255	4,432,516
State Health Labs	2,035,229	2,129,397	1,807,905	1,448,246
UNLV	171,867,474	183,139,626	154,997,284	129,021,655
Athletics	8,940,854	9,256,767	7,927.19	6,492,671
Law School	9,017,451	9,638,374	8,242,427	7,739,671
Statewide Programs	1,432,379	1,527,282	1,310,307	1,065,510
Dental School	8,302,576	9,047,398	8,685,220	7,819,051

University of Nevada, Reno (UNR)

Ron Zurek, UNR's Vice President for Finance and Administration, stated that UNR's top goal during the past four years of budget cuts has been to protect the core mission of the university. Zurek described UNR's cuts as vertical, rather than horizontal to protect what his institution perceived as its strongest programs. "We will clearly become a more narrow institution, we won't be as comprehensive as we once were, but we are committed to protecting our areas of expertise," Zurek said. "The policy decisions we have made are data driven. The vertical cuts are disproportionate by design to protect our core."

UNR President Milton Glick said he took a business-like approach to the initial round of budget cuts when he was told he would have to trim the university's budget by 7%. Some counseled him that he was going too far in taking drastic measures when he approved cuts to student-support programs as well as other periphery programs such as Basque Studies in order to protect the core programs of the university. "We unfortunately were ahead of the game when we initiated a curricular review to start this process, but there was very little doubt that there would be a serious long-term economic downturn," said Glick, who also said UNR was not initially thinking about closing whole academic departments and firing tenured faculty. Looking back on how UNR handled the initial cuts, he said even then he realized the cuts would be deep and involve the elimination of many long-standing academic programs. UNR instituted a process of curricular review that guided the cutting process.

Because of politically driven agendas in the state legislature, some may have perceived that UNR's decision to make deep cuts to the College of Agriculture,

Biotechnology, and Natural Resources (CABNR) as being political. Legislators from the urban centers of the state, the Democrats who hail mostly from Clark County, threatened to cut programs for rural Nevada unless tax increases were passed. One of these threats was the consolidation of community colleges outside of Las Vegas and Reno. Glick, though, reinforced Zurek's contention that the decision was data driven. Only 7% of the students from Nevada's 15 rural counties are enrolled in CABNR and most of them are majoring in pre-medicine.

"I am not one of those people who believe that a crisis is a terrible thing to waste," Glick said. "We won't be able to ever rebuild the university to what it was. There is nothing positive that will come out of this. Instead, what we've concentrated on is protecting our high quality programs to the best of our ability and to a lesser degree, protecting access. I've tried to do what's best for our constituents and all I can say is that I've tried to do the right thing."

Marc Johnson, UNR's Executive Vice President and Provost, said doing the right thing was offering as many buyout packages as possible to faculty and staff and freeze as many positions as possible. He also headed up UNR's curricular review process, which Glick allowed him to oversee without interference. He said before UNR cut anything it was important to find out what the university could live without. "We really focused on the non-academic functions," Johnson said. "Unfortunately, that meant the end of our tutoring, math and writing centers. We also closed our career center. These are all nice to have, but not essential to keeping classes open."

UNR, as Nevada's Land-Grant institution, had a number of statewide programs it could cut. Born out of the Morrill Land Grant acts of 1862 and 1890, UNR's original

core mission as a Land Grant was to teach agriculture, military tactics, and the mechanical arts as well as classical studies so that members of the working classes could obtain a liberal, practical education. Johnson acknowledged that he asked non-degree granting programs such as the Child and Family Development Center and the Bureau of Mines for budget reductions of up to 80% from its state allocation. The Center of Ethics and Health Policy was eliminated, Johnson said, perhaps because its director quit during the process. The Cooperative Extension program, which distinguishes UNR as a Land Grant Institution, lost more than half of its state allocation.

Curricular Review

Glick defined the curricular review process as the provost making a recommendation, the Faculty Senate and departments responding, colleges making recommendations and then Glick making the final recommendation to the Board of Regents. The goal was to protect programs, which were economically important, those that demonstrated high productivity, were unique, and were of high quality. The Basque Studies program was protected because it is unique and has an international reputation. Overall, Glick said he was comfortable defending the decisions that were made because the curricular review required that these decisions be data driven. He also revealed that if he felt the budget crisis was short-termed, he might have called for more horizontal (across-the-board) cuts, but his priority was to protect the very best programs the university had developed over time.

Glick died before the legislative session ended, but he correctly predicted that part of the solution would be that the budget cuts would be evened out over the biennium and that the sunset on the 2009 tax package would be lifted. He also predicted that higher

education funding would not decrease any further in the near term because campuses would have the ability to increase tuition to preserve existing programs. Near the end of the 2011 Nevada Legislature, the Nevada Supreme Court ruled the legislature's \$62 million grab from the Clean Water Coalition in Clark County was unconstitutional, which led to a compromise allowing tax increases passed in the 2009 legislature not to sunset.

UNR communicated with its key constituencies, engaging the business community directly and calling town-hall meetings on campus. Glick also gave his faculty, alumni, and other university supporters a regular update through email messages. "When faculty said they have not been communicated with – what they mean is you didn't listen – you didn't hear us," Glick said. "That is one way that communication is very dissatisfying to faculty and rightly so."

In June 2010, UNR reorganized its College of Education, which included the elimination of the Department of Curriculum, Teaching, and Learning; the Department of Educational Psychology, Counseling and Human Development; the Department of Educational Specialties; and the Department of Educational Leadership. The following graduate departments were eliminated: Counseling and Educational Psychology, Educational Leadership, Educational Specialties, Literacy Studies, Special Education and Disabilities Studies, and Teaching English to Speakers of Other Languages. UNR eliminated its Department of Animal Biotechnology and Department of the Animal Biotechnology and Animal Science. UNR eliminated the Department of Resource Economics and eliminated the following programs: Agricultural and Applied Economics, Environmental and Resource Economics, and Resource and Applied Economics. Other

programs eliminated were Speech Communications, German Studies, Interior Design, and Supply Chain Management (NSHE, 2011).

Johnson said that perhaps in the long run, reducing the scope of many of the university's centers will go a long way toward deepening the faculty pool, calling it a culture shift at UNR. When the university grows back, he said the priority will be to hire more tenure-track faculty in existing strong programs, not reinstate lost programs, which in turn will improve the university's core. Another logical consequence of the current crisis is that it is not wise to expect state funding to be reinstated, instead it is expected that increased tuition fees will be the real answer to rebuilding academic programs.

While a business leader can focus on the bottom line, a university must get buy-in from key constituencies. The administration spent a considerable amount of time communicating with student and faculty groups. While businesses are always looking for new revenue sources, universities are more focused on making the best use of the resources they are provided.

University of Nevada, Las Vegas (UNLV)

UNLV, which receives the largest percentage of state funding in NSHE, has seen its enrollment increases and therefore funding increases come to an end the past two years. Gerry Bomotti, UNLV's Senior Vice President for Finance and Business, said the reasons are easy to pinpoint. It was related to the funding formula and the fact that the major policy decisions implemented by the Board of Regents, which were primarily aimed at reducing the enrollment growth of UNLV, worked. The first was the removal of funding for developmental education programs for UNLV and UNR. Other factors impacting UNLV's enrollment decline has included the opening of Nevada State College

in 2002 and higher grade-point average admissions standards that required a 3.0 grade-point average (GPA) beginning in 2008.

Generating revenue has never been part of the university's mission. In reality though, downsizing services offered has become the new reality in which UNLV has been forced to deal with during the recent economic downturn. The university was hindered in its pursuit of additional revenue when the Regents decided to stop offering remedial classes at the university level in Nevada. The Regents also raised university admissions' standards from a required 2.25 GPA to a 3.0 in 2008. Bomotti estimated the result was UNLV seeing its average 7% enrollment growth reduced to nearly no growth. Making matters more challenging for UNLV, the university saw its state funding cut \$40 million between 2007 and 2009.

UNLV developed a planning process in 2009 that focused on three areas: education, infrastructure and research. This master plan entitled "Focus: 50 to 100, Celebrating 50 Years. Planning the Next 50 Years" (UNLV, 2007-10) was not a plan to look for alternative funding sources. Rather, it was a master plan that laid out the university's priorities with shrinking public resources. While a business might look for a new marketing plan or roll out a new product to attract additional students, UNLV had to deal with the reality of initially cutting \$15 million from its education mission, which meant the elimination of eight departments. UNLV identified preserving its core academic mission as its top priority. When the policy decisions were made to raise the entrance GPA, create Nevada State College and eliminate remedial courses, Bomotti said no consideration was made in how they would affect UNLV's growth, which has declined from an annual growth rate of 7% to no growth. One of those policy decisions

was based on the assumption that many College of Southern Nevada and Nevada State College students would eventually transfer to UNLV. Bomotti countered that UNLV actually gets more transfer students from UNR than it does from the College of Southern Nevada. In working with economists on the UNLV campus, Bomotti said the recession was not a surprise, but there was very little they could do to prevent the eventual budget reductions.

One of the efficiencies Bomotti was proud of was the reduction in utility costs. In spite of the campus growing by 500,000 square feet in the past four years, UNLV consumed less energy than it did four years ago. Bomotti said he was proud that his university was focused on identifying strengths, trying to redirect resources to improve them, but was forthright about the lack of strategic planning in the past.

Bomotti defined UNLV as a fairly new institution, and characterized its development through the years as “opportunity growth. I mean, we decided we wanted to have a dental school because a legislator was a dentist and decided we should have a dental school, and the law school came about almost the same way.”

Bomotti pointed out that Neal Smatresk was the provost when the cuts of 2009 took effect. He later ascended to president, an advantage he had was that now he could continue a reorganization he started as provost. Looking back on the first of consecutive legislative sessions that produced double-digit budget reductions in 2009, Smatresk recalled that it was a culture shock because it had been preceded by so many years of budget increases.

One of the budget-driven decisions UNLV made through the years was to hire part-time instructors, who do not require benefits or qualify for tenure. UNLV used the

current budget crisis to eliminate many part-time instructors. Smatresk said UNLV initially used the crisis to address a priority of increasing tenure-track faculty. While eliminating part-time faculty would normally be considered bold, Smatresk said UNLV needed to revamp its entire academic budgeting process. Prior to 2010, deans were not responsible for their own budgets, which ultimately is what led to the elimination of part-time faculty. Smatresk said because instructor's budgets were not driven by any formula, the determination of how UNLV hired part-time faculty and graduate assistants was arbitrary. Smatresk said a common scenario in his decentralization effort was the determination by UNLV planning efforts that full-time instructors should teach more classes, which in turn would eliminate the need for many part-time faculty members. Smatresk said he had gone through a similar experience at the University of Hawaii, where he had served in a similar capacity. He believed that deans being responsible for budget lines led to better decision making at the department and college level. He predicted it would also lead to resources being devoted to activities that are more profitable. Anticipating further cuts, UNLV also implemented a Voluntary Separation Incentive Package, encouraging faculty who may be vulnerable or near retirement to take a buy-out. UNLV offered an additional six months' salary buy-out, which was taken by 61 faculty members. It also gave UNLV about \$8 million in salary savings that Smatresk said helped to preserve UNLV's reputation in the larger higher education community. He also believed that while vertical cuts are often the right strategy, he also believed when budgets are reduced, everyone must share in the pain.

While Smatresk was confident in how UNLV responded to the budget crisis, he believed that because the funding formula was based on growth, eliminating instructors

and programs worked against his reorganization efforts. He also claimed that the state took \$14 million out of his budget, which came out of non-resident fees and redistributed it to other institutions. He has continued UNLV's claim that its students get shorted at the expense of UNR in per-pupil funding and pointed out that UNR has the advantage of having \$22 million in statewide programs for Cooperative Extension, the Agricultural Experiment Station, and the Bureau of Mines and Geology compared to UNLV's \$3 million, which gave the northern school more budget cutting options.

Smatresk said the master plan, "Focus: 50 to 100, Celebrating 50 Years. Planning the Next 50 Years" (UNLV, 2007-10), was critical in rallying the campus community and important in dealing with external constituencies. He claims this effort begun when he was still UNLV's provost led to "one of the best accreditation reports I have ever seen in my life," and he used it to build morale on campus. In a letter to Smatresk on August 5, 2010, the Northwest Commission on Colleges and Universities confirmed UNLV's reaccreditation:

The Commission commends the University of Nevada, Las Vegas for its exceptional sense of community and solidarity in the face of literally unprecedented fiscal challenges that were countered by a commitment to transparency and inclusiveness in critical planning by the administration and senate. Moreover, the Commission applauds the University for the extremely successful completion of its "Invent the Future" Capital Campaign which is reflective of the many local, regional, and national constituencies that see the institution as a worthy investment vehicle for the growth and development of Nevada.

Further, the Commission finds laudable the establishment by the University, in particular its libraries, of a highly effective and robust program of assessment data gathering that is used on an ongoing basis to improve resources and services, the libraries' leadership in promoting greater information literacy as an integral part of the student learning experience, and an exemplary commitment to providing modern and spacious library facilities in support of teaching and research. In addition, the Commission commends the University for its Lead Role in a partnership to establish the Clinical Simulation Center on the Shadow Lane campus. Likewise, the Commission finds noteworthy the remarkable success of the William S. Boyd School of Law in reaching out to the Las Vegas and greater Nevada communities through its Thomas and Mack Legal Clinic, the Saltman Center for Conflict Resolution, and the Externship program. Moreover, the Commission commends the University, in particular its Division of Educational Outreach, on its successful restructuring and embracing of the role as a revenue center for the institution. Further noteworthy is the University's significant emphasis on water and energy conservation, which clearly shows that the physical plant staff takes a great deal of pride in their work.

Smatresk also had a series of positive meetings with community leaders and members of the Las Vegas chamber who agreed to lobby for UNLV in Carson City. UNLV maximized its media opportunities, according to Smatresk. One example was an interview he did for *VegasInc*, a weekly magazine published by the *Las Vegas Sun*, when he took on the governor by saying "you don't build a global high-tech economy by wishing for it – or by low taxes," the article quoted Smatresk (Green, 2011). "You build

it by having a resource-rich environment, and the most critical asset for any high-tech business is access to graduate programs and research expertise that supports the mission of that company. Period. If you do it, you'll get more high-tech businesses. If you don't, you won't" (Green, 2011).

In June 2010, UNLV eliminated the Department of Marriage and Family Therapy, the Teaching and Learning Center, the Department of Educational Leadership, the School of Informatics, the Department of Recreation and Sports Management, the Department of Sports Education Leadership, the Clinical Laboratory Sciences Program, and the Urban and Environmental Horticulture Program. As of June 2011, UNLV completed its reorganization of the College of Education. The following six departments were eliminated: Counselor Education, Curriculum and Instruction, Educational Leadership, Educational Psychology, Special and Early Childhood Education, and Sports Education Leadership. The reorganization resulted in the creation of the following new departments: Educational and Clinical Studies; Educational Research; Cognition and Development; Teaching and Learning, which includes elementary, secondary, postsecondary, and career technical education. Also reorganized was UNLV's nationally ranked College of Hotel Administration, which saw three departments eliminated: Hotel Management, Food and Beverage Management, and Tourism and Convention Administration. This move was made in order to redirect the focus of the College of Hotel Administration to one with one degree and one major. To complete this reorganization, the following programs were eliminated in September 2011: Hospitality Management, Food Service Management, Lodging and Resort Management, Meetings and Events Management, and Gaming Management. Also in September, the following

degree programs were eliminated: Culinary Arts Management, Recreation, Sport and Leisure Services Management, and Educational Leadership. The following centers were eliminated: Advanced Study of Algorithms, Cyber Security Research, Disability and Applied Biomechanics, Sports Education, Cognitive Interference Lab, Identity Theft and Financial Fraud Research, and Nevada Manufacturing Research (NSHE, 2011).

Chapter V

Discussion and Recommendations

Summary of the Study

The purpose of the study was to explore how institutional leaders at two universities in one state understood and responded to declining resources. It consists of a discussion about how the state's original land-grant institution focused on fairness and its core values to address the budget appropriation reduction, using a curricular review process whereas the fast-growing and young institution developed a strategic plan and then followed it during a severe state allocation decline.

Bolman and Deal's (2003) four frames of leadership were used as a filter for analysis. All four frames were revealed. Bolman and Deal's (2003) four framework approach to leadership can be identified in the approaches taken by UNR and UNLV in cutting their respective budgets. UNLV's structural framework actually began when Smatresk was still the university's provost and he developed a planning process that identified three priorities: education, infrastructure and research. UNLV called its plan "Focus: 50 to 100, Celebrating 50 Years. Planning the Next 50 Years" (UNLV, 2007-10). The plan that was instigated by former President David Ashley and carried out by Smatresk and Senior Vice President of Finance and Business Gerry Bomotti and emerged as the institution was celebrating its 50th anniversary. Its goal was to establish priorities to guide its growth and lay a foundation for UNLV's next 50 years.

UNR's structural framework was defined by the curricular review process that it followed in identifying priorities and guide the budget cutting process. UNR President Milt Glick instigated the curricular review after UNR made \$44 million in the first two

rounds of cuts and used it as a guidepost heading into the 2011 legislature. Glick felt it important to follow an academic planning process that allowed for the potentially impacted programs and departments to put forth a formal defense or counter-proposal. It also invited and elicited input by faculty, staff, students, and external constituents. At UNLV, Smatresk defined the human resource frame by saying that he always told faculty that they were in this crisis together and said he believed that the only way they would pull through the crisis was to rally the campus together during difficult times. Both universities used the budget crisis as a way to address the issue of getting more classes taught by full-time tenured faculty. One item worth noting in the human resource frame was that UNLV was generous with its severance packages. While UNLV provided a buy-out package to tenured faculty, UNR handed out notice of non-renewal contracts to tenured faculty.

The political and symbolic frameworks at both universities were virtually identical. Both UNLV and UNR rallied for support from business leaders, alumni, and students. Democrats in the legislature worked hard to preserve education funding in opposition to the republican governor's "no new taxes" mantra. Students from across Nevada rallying in Carson City against education budget cuts did resonate with legislators in 2011. The governor even brought donuts to students camped out at the building one morning. The most effective symbolic frame was that education could be viewed as a key component to economic recovery through developing an educated workforce and as a means to attract new business and employment to the state.

In January 2011, UNLV hosted "Nevada 2.0: New Economies for a Sustainable Future" to explore opportunities to diversify Nevada's economy by examining similar

efforts in Salt Lake City, Denver, Phoenix, and Dallas. A common thread among all four municipalities was that higher education and research played a vital role in their economic development efforts. Meanwhile, the conference highlighted the Swedish furniture company IKEA, which chose not to locate in Las Vegas because the city did not match the company's desired age and education demographics.

One of Chancellor Dan Klaich's talking points during the 2011 legislative session was NSHE's \$2.7 billion economic impact annually on Nevada. Smatresk claimed \$1 billion of that figure. Education leaders on both campuses argued that budget cuts would hamper if not make economic development efforts in Nevada impossible.

Discussion

The two most salient findings of this study were the tension between the leadership of the two universities and the desire to control the future of each institution through tuition increases. The tension was the latent sense of inequity in the part of UNLV that UNR is disproportionately funded, regardless of the costlier needs to maintain its older campus and Land Grant mission, requiring UNR to carry out more statewide programs. This has been part of the political frame that has existed almost from the beginning of UNLV's history, which began as a branch campus of UNR more than 50 years ago in a city at the time that was about to overtake Reno as the state's major urban center. The second finding was both universities' desire to retain more of its tuition and control the direction of each campus through tuition increases. Both institutions have also resolved themselves of not receiving any additional state funding anytime in the near future. This can be classified in the symbolic frame as a way to rally hope for the future of each institution.

UNR being the older institution, focused on fairness and its core curriculum by employing a curricular review process that heavily involved its Faculty Senate to deal with budget reductions. A strategy UNR employed to protect its core teaching mission, was to make deep cuts to statewide programs such as the Nevada Bureau of Mines and Geology, Cooperative Extension, and the Agricultural Experiment Station. However, beyond these programs, UNR was forced to cut funding for tutoring and career centers in an effort to preserve as much funding as possible for instruction. A critical component of UNR's human resource frame was the belief by both President Milton Glick and Provost Marc Johnson that the value of the curricular review process was that it was data driven and gave faculty the opportunity to provide an alternative plan.

On March 8, 2011, Glick announced in a campus email that he would make \$26 million in budget reductions and eliminate 225 positions. Since 2009, UNR has lost more than 400 budgeted positions and lost 23 programs. He stated in the email that UNR had attempted to maintain the university's core strengths, which includes a strong research program and quality degree programs. He also listed preserving access for future students and ensuring their success as a priority. One of UNR's plans going forward was an assessment of college mergers, however, no specific proposals were yet determined. Glick wrote that the provost's proposals for closing or reducing academic programs and restructuring colleges and departments would be reviewed through a formal Academic Planning Process, and would provide for a period of further review and input from individual faculty, departments, and colleges. During this time, units were asked to respond to proposed closures, which would also be reviewed by the Faculty Senate.

UNLV, which celebrated its 50-year anniversary in 2009, developed a master plan to establish the university's priorities with shrinking public resources. It focused on education, infrastructure, and research. UNLV identified preserving its core academic missions as its top priority. UNLV also identified making full-time faculty teach more classes as a priority and thus eliminating as many part-time faculty members as possible. Smatresk moved to decentralize the budget so that departments and colleges were accountable for the funding they received. In the process, instructional budgets would also become formula driven. He said the budget process he inherited was too arbitrary in an environment of dwindling state support. Smatresk also offered a voluntary faculty buy-out that saved his institution \$8 million.

Both campus leaders believe they are better positioned strategically to control their own destinies through tuition increases. At UNLV, Smatresk felt this has been accomplished by having shifted budgetary responsibilities from central administration to deans and department directors. At UNR, Johnson said that through the university's Academic Planning Process it has identified the core programs going forward and the university will invest in existing programs rather than add new ones. In other words, Johnson said the university has strengthened itself by adding faculty and research funding to existing programs.

Recommendations

There are two recommendations from this study. First, the equity issue between UNR and UNLV must be resolved. Secondly, there needs to be an elasticity study on what the effects will be on raising tuition. Will raising tuition backfire in a state with such low income and so few college graduates?

There has been a persistent perception that there is an inequity between the universities at the expense of UNLV. In 1999 when NSHE's Board of Regents commissioned MGT of America, Inc., to conduct a study of funding equity within the university system, some stark differences between the universities were pointed out. When the first funding formula was adopted in 1968, UNR was the established land-grant institution in the state and it had established undergraduate, graduate, and professional programs going back 90 years. UNLV was then known as Nevada Southern University and had granted its first baccalaureate in 1965. Because of its history, the bulk of the statewide programs within NSHE are part of UNR. This includes the School of Medicine, Bureau of Mines and Geology, and the Agricultural Experiment Station. Two factors that also sway additional funding to UNR is the age of the campus, which requires more operations and maintenance funding and more faculty members at a more senior rank than UNLV. Finally, UNR conducts half of the research in NSHE, while UNLV's activity accounts for less than a third. MGT made a recommendation that the Board of Regents should seek additional state funding from the state in the amount of \$24 million to address the funding inequities identified for UNLV, Community College of Southern Nevada (now College of Southern Nevada), Truckee Meadows Community College, and Western Nevada Community College (now Western Nevada College) (MGT, 1999).

Twelve years later, MGT was again asked to do a funding analysis of the university system, but this time found the NSHE in a survival role. One effective argument to preserve higher education funding is its role as driver of the economy. If the universities could not provide the necessary research base for some of the emerging sectors in the economy, then the perception was that the state would not have a growing

economy. As far back as 2005, a legislative report to evaluate higher education programs concluded that higher education was a critical component of driving the State's economy, but that the current funding mechanism did not provide incentives either for efficiency of operation or for meeting statewide needs (MGT, 2011).

NSHE Chancellor Dan Klaich called for a complete review of the funding formula during the 2011 Legislature. He said that funding based solely on enrollment without regard to performance in critical areas such as student completion should be a thing of the past. He said that every policy on funding and budgeting should be analyzed to support a more entrepreneurial structure that recognizes the fact that public higher education must move to a more self-sustaining model and not suffer the loss of state general fund support when it does so (Nevada Legislature Committee, 2011).

In evaluating the funding formula, MGT found that the current funding model does not have a performance component, or an incentive funding component, and could be improved by additions or changes to incorporate performance. There is no linkage to the goals for the colleges and universities, nor any measure of accomplishment, and no link to performance standards. Multiple improvements can be made to the Nevada model to make it more mission-sensitive, size sensitive, adaptable, and equitable. MGT recommended that NSHE work with appropriate stakeholders to determine an instruction matrix that would more closely approximate the current cost of these courses. Included in the cost matrix would be a differentiation of the costs of doctoral programs (MGT, 2011). One possible outcome of this latest equity study is that the funding formula would be changed to once and for all end the long-held perception by UNLV that there is a funding inequity with UNR.

The economic downturn since 2007 has changed NSHE's priorities. In the NSHE Master Plan adopted in 2005, "opportunity and accessible education for all" was one of seven goals listed. In 2011, Klaich presented a strategic plan to the legislature "intended to lead to greater efficiencies and enhanced performance that will ultimately translate to more students graduating."

At the October 21, 2011 Board of Regents' Special Meeting, Klaich presented an update of the plan he brought to the legislature. He listed retaining registration fees and non-resident tuition on campus instead of seeing them redistributed through the state's general fund. He was also sensitive to financial aid issues, wanting to hold low-income students harmless to fee increases and ensuring that federal financial aid dollars are maximized. While the emphasis since the 2005 Master Plan was completed has shifted from student access to student success, a tuition price elasticity study needs to be completed so that a truly data driven analysis is available when tuition hikes are considered going forward. The Board of Regents were also told during their October meeting that Nevada ranks dead last among states in terms of its young adults (ages 25 to 34) who are educated. The state is facing declining and unpredictable state tax revenues and state support for higher education, changing demographics, and a very low high school graduation rate are also obstacles in improving access. When Nevada's economy was strong and growth drove revenue, funding access was an attainable goal. Now, however, the legislature is demanding graduation rates with less funding. In this fiscal environment, NSHE is left with few alternatives to raising tuition. The Board of Regents has formed an Access and Affordability Committee that will review tuition and fee policies in conjunction with financial aid policies to ensure student access to an

affordable education. NSHE has listed as a goal increasing the college participation rate for students from low-income and first-generation families. It is also emphasizing ways to increase full-time enrollment and improve advisement. A thorough tuition elasticity study combined with resolving the equity issues between UNLV and UNR could help guide NSHE during a future period that promises a much slower rate of population growth.

References

- Altbach, P. G., Berdahl, R. O., & Gumport, P. J. (2005). *American higher education in the twenty-first century: Social, political, and economic challenges*. Baltimore, MD: The Johns Hopkins University Press.
- Barr, M. J. (2002). *Academic administrators guide to budgets and financial management*. San Francisco, CA: Jossey-Bass.
- Best, J. W., & Kahn, J. V. (2006). *Research in education*. Boston, MA: Pearson Education, Inc.
- Bolman, L. G., & Deal, T. E. (2003). *Reframing organizations: Artistry, choice, and leadership*. San Francisco, CA: Jossey-Bass.
- Cangemi, J. P. (1975). Leadership characteristics of business executives appropriate for leaders in higher education. *Education, 95*, 229-232.
- Christensen, A. L., & Philbrick, D. (1993). Businesses and universities: Similar challenges, shared solutions. *Journal of Education for Business, 69*, 6-11.
- Eddy, P. L. (2005). Framing the role of leader: How community college presidents construct their leadership. *Community College Journal of Research and Practice, 29*, 705-727.
- Green, S. (2011). The president fights back. *VegasInc, 11*(43), 30-32, 41.
- Horsford, S., & Ocegüera, J. (2011, May). *Reconstructing Nevada for the 21st century: Roll-out of Democratic Legislative response to Governor Sandoval's proposed budget*. Presentation to the Nevada State Legislature, Carson City, NV.
- Immerwahr, J., Johnson, J., & Gasbarra, P. (2009). *Campus commons? What faculty, financial officers and others think about controlling college costs*. Retrieved from

Public Agenda website:

http://www.publicagenda.org/files/pdf/campus_commons.pdf

Immerwahr, J., Johnson, J., Ott, A., & Rochkind, J. (2010). *Squeeze play 2010: Continued public anxiety on cost, harsher judgments on how colleges are run.*

Retrieved from Public Agenda website:

http://www.publicagenda.org/files/pdf/SqueezePlay2010report_0.pdf

Kezar, A. J., Carducci, R., & Contreras-McGavin, M. (2006). Rethinking the “L” word in higher education: The revolution in research on leadership. *ASHE Higher Education Report*, 31-6.

Lingenfelter, P. E. (2007). The financing of public colleges and universities in the United States. *Handbook of Research in Education Finance and Policy*, London, England: Routledge.

MGT of America, Inc. (1999). *A Study of funding equity within the university and community college system of Nevada* (Draft). Tallahassee, FL: MGT of America, Inc.

MGT of America, Inc. (2011). *Evaluation of the Nevada System of Higher Education.*

Retrieved from NSHE website:

http://system.nevada.edu/tasks/sites/Nshe/assets/File/Publications/NSHE_Funding_Formula_Report_May_2011.pdf

Montez, J. (2003, April). *Developing an instrument to assess higher education leadership.* Paper presented at the annual meeting of the American Research Association, Chicago, IL.

Moody’s Analytics. (2010). *Envisioning Nevada’s future: Goals & strategies for*

advancing our quality of life. Retrieved from

<http://nsla.nevadaculture.org/statepubs/epubs/31428002986095.pdf>

Murray, M., Clark-Johnson, S., Muro, M., & Vey, J. (2011). *Structurally unbalanced: Cyclical and structural deficits in California and the Intermountain West*.

Retrieved from Brookings website:

http://www.brookings.edu/~media/Files/rc/papers/2011/0105_state_budgets/0105_state_budgets.pdf

Nevada Department of Employment, Training, and Rehabilitation. (2008). *Nevada's unemployment hits over a 5-year high at 5.8 percent*. Retrieved from

<http://www.nvdetr.org/>

Nevada Legislature Committee of the Whole, 2011 Legislative Session (2011) (testimony of Daniel Klaich).

Nevada State Demographer. (2011). *Nevada Demographics*. Retrieved from

<http://nvdemography.org/>

Nevada System of Higher Education. (2007). *Report on the 74th regular and 23rd special session of the Nevada State Legislature*. Reno, NV: Author.

Nevada System of Higher Education. (2011a). *2011-2012 Operating Budget* (Ref. BF-5b). Reno, NV: Author.

Nevada System of Higher Education. (2011b). *2011-2012 Self-Supporting Budget* (Ref. BF-4b). Reno, NV: Author.

Nevada System of Higher Education. (2011c). *State supported operating budget* (Report at the NSHE Presidential Retreat). Reno, NV: Author.

Nevada System of Higher Education executive budget overview: Hearings before the Pre-

Session Budget Hearing, 2011 Legislative Session (2011) (testimony of Daniel Klaich).

Northouse, P. G. (2010). *Leadership theory and practice*. Los Angeles, CA: Sage Publications, Inc.

Pears, I. (2010). Universities are not businesses. *Times Higher Education*, 1941, 42-45.

Raggio, W. R. (1999). *Report of the committee to study the funding of higher education to the members of the legislative commission* (Bulletin No. 01-4). Legislative Counsel Bureau.

Richardson, J. T., & Jessup, K. D. (1981). The history of formula-based budgeting for Nevada universities. *Nevada Public Affairs Review*, 64-68.

Restrepo, J., Alastuey, M., Maddox, M., Martin, A., & Rosenthal, L. (2011). *Economic forum report*. Retrieved from Nevada Legislature website:
http://64.161.36.133/Division/Fiscal/Economic%20Forum/EF_Letter_and_Forecast.pdf

Rubin, H. J., & Rubin, I. S. (2005). *Qualitative interviewing: The art of hearing data*. Thousand Oaks, CA: Sage Publications, Inc.

Stake, R. E. (1995). *The art of case study research*. Thousand Oaks, CA: Sage Publications, Inc.

Stake, R. E. (2010). *Qualitative research: Studying how things work*. New York, NY: The Guilford Press.

State Higher Education Executive Officers. (2010). *State Higher Education Finance FY 2009*. Retrieved from http://www.sheeo.org/finance/shef_fy09.pdf

Stockdale, C. B., Sauter, M. B., & McIntyre, D. A. (2011). States where people pay the

most (and least) in taxes. *24/7WallSt.com*.

Trowler, P. R. (2002). *Higher education policy and institutional change: Intentions and outcomes in turbulent environments*. Philadelphia, PA: The Society for Research into Higher Education & Open University Press.

University of Nevada, Las Vegas. (2007-10). *Focus: 50 to 100. Celebrating 50 year. Planning the next 50 years*. Retrieved from <http://planning.unlv.edu/>

University of Nevada, Las Vegas. (2011). *Academic units*. Retrieved from <http://go.unlv.edu/about/academics/units>

University of Nevada, Reno. (2009). *University of Nevada, Reno Bylaws*. Retrieved from <http://www.unr.edu/facultysenate/bylaws/UNR%20Bylaws/unr-bylaws-11-18-09.pdf>

University of Nevada, Reno. (2011). *Colleges and schools*. Retrieved from <http://www.unr.edu/academics/colleges-and-schools>

Appendix
Interview Guide

1. When did you first think about this being a real budget crisis, as opposed to something we could work our way through with relatively easy adjustments?
2. Initially how did you think about the crisis?
 - a. What prompted that consideration?
3. As you confronted the realization that this would be a real crisis, what was your most immediate concern?
 - a. Students
 - b. Faculty
 - c. Access
 - d. Tuition
4. Did this change over time?
5. What resources did you draw upon to put the situation into perspective?
 - a. Written
 - b. Human
 - c. Literature
 - d. Political
6. What strategies were immediately put in place?
 - a. Why did you select these strategies?
7. Who did you immediately involve and why?
8. What role did you play in the process and what was it (president, provost, mission, access, funding)?

9. What roles did other people play?
10. At what point did you involve ...
 - a. Finance
 - b. Personnel
 - c. Deans
 - d. Student representatives
11. As you think back about the immediate strategies, how effective were they?
12. As the situation developed, did your strategies change and if so, how?
 - a. What prompted the change?
13. Briefly, how does internal formal communication occur within campus?
 - a. Situation/Seriousness
 - b. Process
 - c. Alignment guidelines, criteria?
14. Briefly how does external communication occur?
 - a. Media
 - b. NSHE/Board of Regents
 - c. Legislature/Governor
 - d. Other Presidents
 - e. Business Community
 - f. General Public
15. As you implemented strategies related to the budget crisis, did you make any deliberate changes in the way you communicated on campus? If so, why?

16. As you think about it at this point looking back what opportunities did the crises present to you?
17. Was there anything that just was not important to you? Why?
18. There are always positive and negative consequences in major undertakings, particularly ones that are done either quickly or in a crisis. What was the most positive thing that happened during the crisis?
 - a. Can you see how this could be used in other circumstances?
19. What did not work?
 - a. At what point did you realize that the strategy would not work?
 - b. What did you do about it?
 - c. What strategies did you implement to negate the unintended consequence?
20. We are at this stage of the crises and yet we know that the state is not out of the woods economically. How has what you have just gone through informed how you are thinking about the future?
 - a. What do you see tuition's role now and in the future?
 - b. What is your institution doing about containing and reducing costs?