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## The Role of tuition in financing higher education

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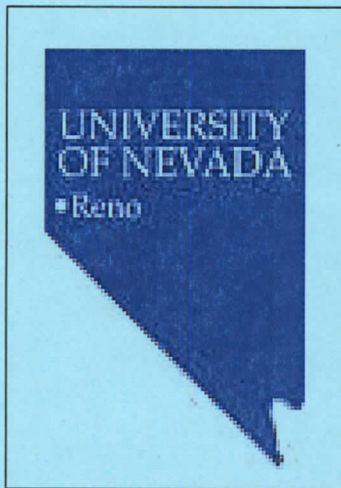
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# The Role of Tuition in Financing Higher Education

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Volume I of II



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## **EXECUTIVE SUMMARY**

In May 2009, six students enrolled in a graduate level policy analysis course at the University of Nevada- Las Vegas engaged in discussion concerning the effects of recent trends in the financing of higher education within the State of Nevada. This discussion was further narrowed down to the effects of tuition revenues. To what extent the University of Nevada-Las Vegas exercises control of their individual tuition revenues (how tuition revenues are expended and/or invested), and the amount of tuition revenues retained (to be expended and/or invested to maintain institutional operations) became the basis of this paper. While comparing the University of Nevada-Las Vegas to 13 out of its 25 peer institutions, this tuition exploration includes the analyses of the structure & governance of tuition, state tax appropriations, in-state versus out-of-state tuition, and financial aid. Moreover, this paper may provide a foundation for possible future long term policy recommendations to the faculty at the University of Nevada- Las Vegas located in the Public Administration Department, as well as the Nevada System for Higher Education (NSHE).

## **LITERATURE REVIEW**

With the downturn in the economy comes the tightening of belts in everyone's budgets, and funding for higher education has not been exempt. While states work through the monetary shortfalls, their appropriations to higher education decrease, threatening the affordability and quality that public institutions of higher education can offer. Those institutions are faced with increasing costs while the options to increase revenue become increasingly limited (Edirisooriya, 2003).

Much of the literature on the role of tuition stresses the importance of preserving the possibility of achieving a higher education for anyone. Higher education provides opportunity to secure higher wages, increase productivity, contribute to the economic and civic success of the community, state, and nation, and close some of the gap in attendance rates between high and low income students (National Center for Public Policy and Higher Education, 2002). A low tuition-low financial aid strategy for a quality education has appeal; however the cost of providing it is greater than the appropriations institutions receive from their state. This creates an undesirable scenario of having to raise tuition or having the quality of education offered decrease, according to Archibald and Feldman (2004). Increases in tuition without comparable increases in financial aid, especially in times of economic hardship (which seem to incur the steepest tuition increases), threatens college accessibility and affordability and results in more students and families going deeper into debt to pay for a college education.

Another strategy explored in the literature is the high tuition-high financial aid model, based on claims of efficiency and equity. However, this model "is a denial of the appropriateness of higher education as a public good" (Altbach, Berdahl, & Gumport, 2005). With high tuition comes the perception that the more expensive the better the quality, and brings

out competitor levels of tuition on the part of institutions wishing to promote an infrastructure better than their counterparts. The error in that perception is in what consumers compare to ascertain college quality. “In comparing college quality, consumers can’t really compare things that matter like institution teaching and learning, so they compare proxies like residence life and athletic facilities, even though those proxies don’t indicate much about college quality” (Dannenberg, 2006).

Very little of the literature actually addresses how tuition revenues are controlled or retained, or what they are specifically used for, other than recently (and broadly) to offset revenue losses from other sources. A few articles discuss the role of tuition as it affects enrollment numbers. Despite earlier studies (Leslie & Brinkman, 1997; McPherson & Schapiro, 1991; Kane, 1994) to the contrary, later research (Ellwood & Kane, 2000; Cameron & Heckman, 2001) concluded that tuition has minimal overall importance in enrollment decisions, and more recently, “...the fairly rapid tuition increases in the 1990’s have had no effect on enrollment decisions in public institutions” (Baird, 2006).

Tuition increases can be utilized to offset the decreasing state appropriations, but require such a large increase that students would incur a heavier burden if financial aid is not increased, disproportionately affecting low-income students (Kane, Orszag, & Gunter, 2003). Students are already paying more for their educational costs, as from 2002 to 2006 tuition rose from about one-third to nearly one-half at all public four-year institutions (Delta Project, 2009). Raising tuition is not a decision without consequences or tradeoffs. Many institutions are reluctant to do so for the perception of being “vilified” by those in the political environment if they do, and for some, they may face even further reduced state funding by raising tuition (Rizzo, 2004). In other



words, as Kane et al. (2003) state: “politics will not allow tuition to fully offset reductions in state appropriations”.

Recommendations and possible solutions in resolving the tuition issue are numerous but seem to echo a common point: if institutions wish to compete successfully for public financing that is becoming more sparse, they must be more transparent about the path that money takes, where it comes from, where it goes, what it buys, etc. – and they must do so in a manner and verbiage that makes sense to their consumers and policymakers (Delta Project, 2009).

### **METHODOLOGY, DATA SOURCES AND LIMITATIONS**

The goal of this project was to complete a comparative analysis between the University of Nevada-Las Vegas and its peer institutions in determining the functions of tuition in higher education finance. According to the Carnegie Foundation, there are 23 institutions that are research peers of the University of Nevada-Las Vegas. During the course of initial research and data gathering, several universities were eliminated from the analysis due to lack of readily available data and lack of response to requests for data or information. This process of elimination resulted in a final comparison sample size of 13 peer institutions. They are as follows:

1. University of South Florida
2. Washington State University
3. New Mexico State University-Main Campus
4. University of Louisville
5. University of California-Santa Cruz
6. University of Houston

7. Oklahoma State University-Main Campus
8. University of Nevada-Reno
9. University of Oklahoma-Norman Campus
10. University of Oregon
11. University of Rhode Island
12. University of Connecticut
13. George Mason University

Through initial research and the review of literature, it was determined that the following items would be examined:

1. Tuition Establishment Authority
2. Tuition Control and Retention
3. State Tax Appropriations and Tuition
4. Financial Aid and Tuition
5. In-State versus Out-of-State Students and Tuition

For both tuition establishment authority and tuition control and retention, the basis for beginning the analysis was prior research performed by the State Higher Education Executive Officers (SHEEO). SHEEO completes a biennial survey on tuition and financial aid to determine the philosophies and decision making processes that guide statewide policies (Boatman, 2006). Much of the terminology used throughout this project in relation to tuition establishment authority and the control and retention of tuition was credited to the SHEEO survey of State Tuition, Fees, and Financial Assistance Policies for Public Colleges and Universities, 2005-06 (Boatman, 2006).

When examining state tax appropriations, discussion of the limitations of the data is warranted. States and universities undertake different practices in regards to accounting, budgeting and reporting the amount of state tax appropriations provided to institutions. Often, requested appropriations will differ from the actual dollar amount provided from the state. Because of this, state tax appropriations often undergo “initial” and “adjusted” stages. Therefore, inconsistencies can and do occur. Further, at the time of this analysis, published financial data for fiscal year 2009-2010 was not available for several universities. In these cases, either estimates were derived using available information or the university was omitted from discussion and comparison.

Because of the limited timeframe for conducting this analysis, as well as the variability previously mentioned, data from a standard reporting mechanism was sought. Consequently, the state tax appropriation figures are based upon the results of the annual survey conducted by the Grapevine Project of the Center for the Study of Education Policy at Illinois State University. The Grapevine Project compiles data on state tax support and general fund appropriations for universities (<http://www.grapevine.ilstu.edu>). With that information in mind, the forthcoming figures and data are meant to represent estimates only of state tax effort toward financing higher education.

Data for tuition changes, tuition levels, in-state versus out-of-state students, and financial aid awards were derived from each university’s Common Data Set. The Common Data Set is the standard reporting mechanism used to facilitate ease of reporting, gathering and interpreting information (<http://commondataset.org>). The full-time equivalent enrollment data for each fiscal year was derived directly from the universities. As necessary, further explanation is provided in each section for the data used.

Finally, it was determined that the appropriate timeframe to observe changes in the metrics used for analysis should represent activities before and during the current recession. The U.S. Department of Commerce recognizes the National Bureau of Economic Research (NBER) “turning points” as the official record of U.S. business cycle activity. The NBER committee of economists judged that the “weight of the evidence suggested that the peak (or the beginning of the current recession) occurred in December 2007” (<http://www.nber.org>). Using this determination as a guide, data for fiscal years 2005-2006 through 2009-2010 was sought in order to derive comparison as the nation moved into recession.

It should also be said that terminology thought to be common and defined the same such as tuition, fees, and general state fund, are understood differently by individual institutions. This research neglected to define: statutory tuition, designated tuition, registration fees, special fees, state general fund, unrestricted fund, and self-supporting fund which may be cause for potential error in this report. Future research should define the aforementioned terms from the onset. For the purposes of this report, tuition is defined as the required, base amount to be paid by students in order to attend classes at the peer institutions. Every effort was made to eliminate non-mandatory fees or charges for all students from this report.

### **TUITION ESTABLISHMENT AUTHORITY**

The term “tuition establishment authority” was derived from questions included in the SHEEO 2006 survey of tuition and fees (Boatman, 2006). In comparing the governing bodies of the University of Nevada-Las Vegas’s peer institutions, five categories of possible tuition establishment authority were used: governor; legislature; statewide coordinating/governing agency for multiple systems; coordinating/governing board(s) for individual systems; and individual institutions. The categories used were originally established by SHEEO in forming



their series of surveys and updates on tuition-setting authority (Boatman, 2006). These categories allow for a clear, common vocabulary for use in comparing the various states' systems. Table 1 outlines each category as established by SHEEO and the categorization of each of the University of Nevada-Las Vegas's peer institutions. Appendix A contains the full survey results as obtained by SHEEO followed by summaries.

The Governor refers to the Chief Executive Officer of the state, whose term length varies from state to state. Along with the University of Nevada-Las Vegas, for the following peer institutions the Governor has an informal/consultative role:

- University of California-Santa Cruz
- University of Connecticut
- University of South Florida
- University of Nevada-Reno
- New Mexico State University
- Oklahoma State University
- University of Oklahoma-Norman
- University of Oregon
- University of Rhode Island
- University of Houston
- George Mason University
- Washington State University

There is a caveat to the inclusion of the University of California-Santa Cruz in this group. While the Governor does not technically have authority over the tuition and fee costs, if he/she and the legislature agree on a fee rise (for example 4%), then the various boards will follow it. For the

University of Louisville, the governor plays no role at all in the decision of tuition and fee costs (Boatman, 2006).

Next, the Legislature refers to the state's legislative body or bodies. States vary widely on their legislative structure: bicameral vs. unicameral, annual vs. biannual, professional vs. citizen, but each legislature – regardless of its structure – serves the same purpose: to debate and serve the citizens' of their state. Legislators are publicly elected, usually from their specific districts, counties, or regions. Legislative authority is a bit more varied than gubernatorial authority. Again, most have an informal/consultative role in the fee levels, but are usually more involved in their consultative role. In the State of Washington, home of peer institution Washington State University, the legislature sets the maximum increase for resident undergraduate tuition. Institutions are then free to vary within those limitations (Boatman, 2006).

The Statewide Coordinating/Governing agency for Multiple Systems refers to a state agency that oversees higher education, such as a State Department of Education. These agencies often oversee both higher education and K-12 education. The majority of states of the peer institutions either do not utilize a government agency, or it has an informal/consultative role. As recently as 2003, Florida, home of University of South Florida, voted to have a Board of Governors (which would be considered a coordinating/governing board for individual systems) oversee the public university system, while the community college system (outside the purview of this study) remains under the leaders of the State Board of Education. In Oklahoma, home of the University of Oklahoma-Norman and Oklahoma State University, put full legal decision making authority in this agency (Boatman, 2006).

The Coordinating/Governing Board(s) for Individual Systems are generally a board of representatives (either elected or appointed), who oversee the operations of the higher-education

institutions under their authority. Most states reviewed put full legal decision-making authority in this body. The only exception is Oklahoma, whose board only has an informal/consultative role (Boatman, 2006).

The final possible decision making authority is the individual institution themselves. There is some variation in how the individual institutions are allowed to utilize their authority. The University of South Florida, New Mexico State University, George Mason University, and Washington State University maintain authority over their tuition and fee levels, usually within guidelines established by the legislature, statewide coordinating/governing agency, or the coordinating/governing board. University of Connecticut, University of Louisville, University of Nevada-Las Vegas, University of Nevada-Reno and University of Houston have an informal/consultative role, meaning they may suggest their desired tuition and fee levels to the decision authority, which will then make a decision. Finally, Oklahoma State University, University of Oklahoma-Norman and University of California-Santa Cruz have no authority in their tuition and fee levels. They will receive their levels from the decision authority (whomever that may be), and subsequently follow it (Boatman, 2006).

Table 1

<b>Tuition Establishment Authority (source: State Higher Education Executive Officers survey)</b>				
<b>Governor</b>	<b>Legislature</b>	<b>Statewide Coordinating/ governing agency for multiple systems</b>	<b>Coordinating/ governing board(s) for individual systems</b>	<b>Individual Institutions</b>
University of California-Santa Cruz	University of Houston	University of Louisville	University of Rhode Island	New Mexico State University
	Washington State University	University of Nevada-Las Vegas	University of Oregon	George Mason University
	University of California-Santa Cruz	University of Nevada-Reno	University of South Florida	University of South Florida
	University of South Florida	Oklahoma State University	University of Connecticut	
		University of Oklahoma-Norman		



Table 2 includes the average percent change in tuition from fiscal year 2005/2006 to fiscal year 2009/2010. This is derived from tuition data provided by each university's Common Data Set (Appendix B). As is demonstrated, each university for which complete data was available has experienced a growth in the amount of tuition charged since fiscal year 2005/2006. Although the largest average increases occurred for universities found within the categories of Legislature, Statewide Coordinating/Governing Board(s) for Individual Institutions and Coordinating/Governing Board(s) for Individual Institutions, there is no consistent or distinct pattern of tuition increases among the five categories.

Table 2

Tuition Establishment Authority (source: State Higher Education Executive Officers survey) and Average Change in Tuition FY 06/07 through FY09/10									
Governor		Legislature		Statewide Coordinating/ Governing Agency for Multiple Systems		Coordinating/ Governing Board(s) for Individual Systems		Individual Institutions	
Institution	Average % change in tuition FY 06/07 to FY 09/10	Institution	Average % change in tuition FY 06/07 to FY 09/10	Institution	Average % change in tuition FY 06/07 to FY 09/10	Institution	Average % change in tuition FY 06/07 to FY 09/10	Institution	Average % change in tuition FY 06/07 to FY 09/10
University of California- Santa Cruz	16.8%	University of Houston	33.8%	University of Nevada- Las Vegas	28.1%	University of Rhode Island	41.8%	George Mason University	18.7%
		Washington State University	30.5%	University of Nevada- Reno	28.1%	University of Oregon	24.9%	University of South Florida	18.3%
		University of South Florida	18.3%	Oklahoma State University	27.2%	University of South Florida	18.3%	New Mexico State University	-5.1%
		University of California- Santa Cruz	16.8%	University of Louisville	27.1%	University of Connecticut	18.2%		
				University of Oklahoma- Norman	24.8%				



## **TUITION CONTROL AND RETENTION**

For purposes of this paper, tuition control is defined as the authority, or authorities, who exercise control over how tuition revenues are expended and/or invested. Tuition retention is referred to as the amount of tuition revenues retained by any one individual institution which are expended and/or invested to maintain operations solely for that individual institution.

As the economy spirals downward, initiation of budget constraints will not be an option for most institutions of higher education. The gravity in which such budget constraints are enforced will vary significantly and will depend on a multitude of factors to include tuition control and retention. How much control an individual institution has over tuition monies received and how much tuition monies they retain solely for their institution can be vitally important to the overall quality, accessibility, and economic success of the communities in which these institutions are located. Moreover, this research endeavors to answer the following questions: Are tuition revenues solely controlled and retained by University of Nevada-Las Vegas and its peer institutions? If not, what percentage is? Do the Nevada System of Higher Education (NSHE) procedures concerning tuition control and retention hinder University of Nevada-Las Vegas in times of budgetary crisis? Are there lessons to be learned from University of Nevada-Las Vegas' peer institutions regarding their tuition control and retention procedures?

In an effort to gain current and accurate information regarding tuition control and retention, two e-mail questionnaires were sent to staff members located in the budget or finance offices of University of Nevada-Las Vegas and each peer institution. Both questionnaires consisted of four tuition control and retention questions (Appendix C-D). After thorough review of the responses received from the first e-mail questionnaire, it was determined that some questions may have been misinterpreted or perceived incorrectly by some respondents whereby

creating a greater potential for error. Due to this fallacy, a second e-mail questionnaire was sent out to reduce, if not eliminate any misinterpretations or misperceptions.

Thirteen out of 13 peer institutions responded to our first e-mail questionnaire (Appendix C). Tuition control was assessed by the following questions: (1) Who is the decision maker for tuition increases at your institution? (2) What guidelines are used to determine if a tuition increase is necessary? and (3) What guidelines are used to determine how much tuition is raised? Tuition retention was assessed by the following question: (4) For every dollar increase, what percentage goes directly back to your institution?

The Board of Regents is the tuition establishment authority for tuition increases at the University of Nevada-Las Vegas. Moreover, results revealed that control of tuition for all peer institutions fell into one of the five previously mentioned Tuition Establishment Authority categories established by the SHEEO survey as depicted in Table 3 below.

Table 3

Peer Institution	Tuition Establishment Authority – Responsible Entity
University of California-Santa Cruz	University of California Regents
University of Rhode Island	The Commissioner of Higher Education
New Mexico State University	Board of Regents
Oklahoma State University	A & M Board of Regents & Oklahoma State Regents for Higher Education
University of Oklahoma- Norman	A & M Board of Regents & Oklahoma State Regents for Higher Education
Washington State University	State of Washington Legislature
University of Connecticut	Board of Regents
University of Louisville	Kentucky council of Postsecondary Education
University of Houston	Board of Regents
University of Oregon	The Provost and President
University of South Florida	Governor
University of Nevada-Reno	Board of Regents
George Mason University	Board of Visitors

There were a multitude of responses regarding the guidelines used to determine necessary tuition increases and the amount to be increased. Factors including, but not limited to, increases in financial aid, employee salaries & benefits, peer institutional comparisons, market conditions, state mandates & statutes, and the Western Interstate Commission on Education (WICHE) median, were additional responses to guidelines used. Hence, the most single common response echoed were the declines in the amount of state appropriations allotted to the individual institutions and as set forth by their tuition establishment authority. The University of Nevada-Las Vegas and the University of Nevada-Reno follow the NSHE guidelines to determine if a tuition increase is necessary and the amount to be increased as follows:

*“Per Board of Regents’ policy, every two years, the Chancellor convenes a committee comprised of campus presidents and student representatives to review and make recommendations on tuition and fees to the Board. The Board policy provide the committee with a methodology that the committee must use to set a benchmark, and the Tuition and Fees Committee makes a recommendation to the Board on the amount of an increase.*

*Nevada’s philosophy is that it is better for tuition and fees to increase every year to keep up with necessary costs, rather than delaying any increase until the increase is so large that students have no chance to plan ahead.*

*The benchmark that the committee uses is the most recent median of comparable institutions’ fees and tuition rates, looking at the 15 states comprising the Western Interstate Commission on Higher Education. The Board has to set student fees three years in advance, so future fees are based on a goal built on past data, guaranteeing that Nevada will always lag behind other states and have low student fees.” ([http://system.nevada.edu/Resources/Students/Tuition---/tuition-fees-FAQ.doc\\_cvt.htm](http://system.nevada.edu/Resources/Students/Tuition---/tuition-fees-FAQ.doc_cvt.htm)).*

Seven institutions (University of Connecticut, Oklahoma State University, University of Oklahoma-Norman, University of Oregon, University of Rhode Island, George Mason University, and Washington State University) reported that for every dollar increase in tuition, 100% goes directly back (tuition retention) to their institution. Four institutions (University of



South Florida, University of Louisville, New Mexico State University, University of Houston) reported that 80% or more goes directly back to their institution with a percentage going directly to need based aid, scholarships, financial aid, and/or offsets to state appropriations. The budget website for the University of California-Santa Cruz reflects that about 67% of student fee increases are controlled and retained by the institution and approximately 33% goes to financial aid (<http://budget.ucop.edu/rbudget/200809/2008-09BudgRequestDetail.pdf>). Uniquely, the University of Nevada-Las Vegas and the University of Nevada-Reno reported that 100% of their tuition increases are controlled and retained by their individual institutions, however, approximately 66% of the tuition increases is used as funding for state appropriated functions.

Twelve out of 13 peer institutions responded to the second e-mail questionnaire (Appendix D). No response was received from the University of Rhode Island; therefore this institution was eliminated from this comparison. Tuition control was assessed by the following questions: (1) How does your institution utilize tuition revenue (e.g. state general fund, financial aid, capital projects, etc.)? and (2) Does your institution have total control of tuition revenues? If not, who does? Tuition retention was assessed by the following questions: (3) Does your increase in tuition offset state appropriations? and (4) Are your tuition revenues deposited into your state general fund? If not, which fund(s) are your tuition revenues deposited?

In regards to utilization of tuition revenues, all peer institutions replied with a multitude of answers to include, but not limited to, operations, financial aid, projects, faculty salary, energy costs, campus renovations, safety enhancements, instruction, academic support, student services, financial aid, overhead recovery, miscellaneous sources, capital improvement projects, student government, library, intercollegiate athletics, payment of debt service in bonds issued for capital projects, and support services. Additionally, nine institutions (University of Connecticut,



University of South Florida, University of Louisville, New Mexico State University, Oklahoma State University, University of Oklahoma-Norman, University of Oregon, University of Houston, and George Mason University) reported that they have total control of tuition revenues. Two institutions (University of California-Santa Cruz, and Washington State University) did not answer the question. The University of Nevada-Reno and the University of Nevada-Las Vegas expressed that their campus manages their budget in accordance with the policies of the state, Board of Regents, and their university.

Tuition retention results revealed that four peer institutions (University of Louisville, New Mexico State University, Washington State University, and the University of Nevada-Reno), including University of Nevada-Las Vegas, replied that increases in tuition do offset state appropriations. Four institutions (University of Connecticut, University of Oregon, University of Houston, and George Mason University) reported the opposite. The responses from the remaining four institutions (University of California-Santa Cruz, University of South Florida, Oklahoma State University, and University of Oklahoma-Norman) varied, from “partially” to “yes, if necessary”.

University of Nevada-Las Vegas as well as five peer institutions (University of Louisville, University of Nevada-Reno, Oklahoma State University, University of Oklahoma-Norman, and University of Oregon) confirmed that tuition revenues are deposited into their state general fund. Five institutions (University of Connecticut, University of South Florida, New Mexico State University, George Mason University, and Washington State University) reported that they do not deposit their tuition revenues into their state general fund. The University of Houston articulated that their tuition is divided into two categories, statutory and designated tuition. Their statutory tuition is deposited into the state treasury, and their designated tuition is

deposited into a local bank for their institutions use. The University of California-Santa Cruz did not respond.

### **STATE TAX APPROPRIATIONS**

Several areas of comparison and analysis were undertaken in regards to state tax appropriations:

1. State Tax Appropriations per Full-Time Equivalent (FTE) Enrollment
2. Change in Tuition as compared to State Tax Appropriations
3. Ratio of Tuition Dollars Collected to State Tax Dollars Appropriated

The goal of this section was to compare the state's tax effort in relation to the university's tuition levels and to answer the following questions:

1. What is the relationship between state tax appropriations and tuition between the University of Nevada-Las Vegas and its peer institutions?
2. How has tuition changed as state tax appropriations are affected by recessionary budgeting (i.e. reduced state tax appropriations)?

#### **State Tax Appropriations per Full-Time Equivalent (FTE) Enrollment**

Fiscal years 06/07 through 09/10 were examined. For FY 06/07 through 08/09, appropriations per full-time equivalent (FTE) enrollment is calculated by dividing the total institution state tax appropriation as obtained from the Grapevine Project (Appendix B) by the FTE enrollment value provided by the university. The resulting value provides an estimate of the financial contribution by the state equalized on a per FTE enrollment basis.

For fiscal year 2009-2010, the estimated state tax appropriation per FTE is calculated using the estimated state appropriation and estimated FTE enrollment. Two assumptions are necessary in order to calculate the values for FY 09/10:

1. Estimated state tax appropriations are reflective of the potential budget changes facing the universities and/or the proposed state tax appropriations. Much of this information is derived from published news reports, budget updates, press releases and other information as provided in Appendix E.
2. Full-time equivalent enrollment is assumed to increase by the average change from FY 07/08 to FY 08/09 across all included peer institutions of 3%. For some universities, this will result in greater than experienced growth, while for others it will represent a slower growth rate.

Since the Grapevine Project has not yet published FY 09/10 data on state tax appropriations, it must be understood that the numbers used here are estimates only. In turn, these figures are only to put into context the potential magnitude of the changes in state tax appropriations to higher education. Updates to this analysis may be warranted as state tax appropriations are adjusted, finalized and published.

Figure 1 and Table 4 demonstrates the estimated state tax appropriations per FTE enrollment for fiscal years 06/07 through 09/10 (estimated). Fiscal year 08/09 was the beginning of the recent trend of reductions in state appropriations. The number of universities experiencing a decrease in tax appropriations per FTE outnumbered those that experienced an increase by the order of two to one. This is predictable reaction to the recession which began in December of 2007, according to the NBER. As tax revenues decrease due to the recessionary environment, states allocate resources in a similar fashion. Consequently, as budgets were determined for FY 08/09, most institutions found themselves victim to reduced state tax appropriations.

However, the University of Nevada-Las Vegas experienced a decrease in state tax appropriations per FTE enrollment only in FY 09/10, whereas the University of Nevada-Reno



saw a decrease for both FY 08/09 and 09/10. Still, UNR's state tax appropriations per FTE outweigh UNLV's state appropriations by 58%.

Of note, the University of Oklahoma-Norman and Oklahoma State University were the only two institutions that indicated an increase in total state funding. The increase in total funding for both institutions was directly attributed to dollars received from the federal stimulus package (Rothschild, 2009; Drummond and McBeath, 2009). Despite the increases in total funding of 2.4% for Oklahoma State University and 3.0% for University of Oklahoma-Norman, if the assumption is made that FTE will increase by the average change from past fiscal years, the universities will still experience a decline in overall estimated state appropriations per FTE.

Figure 1

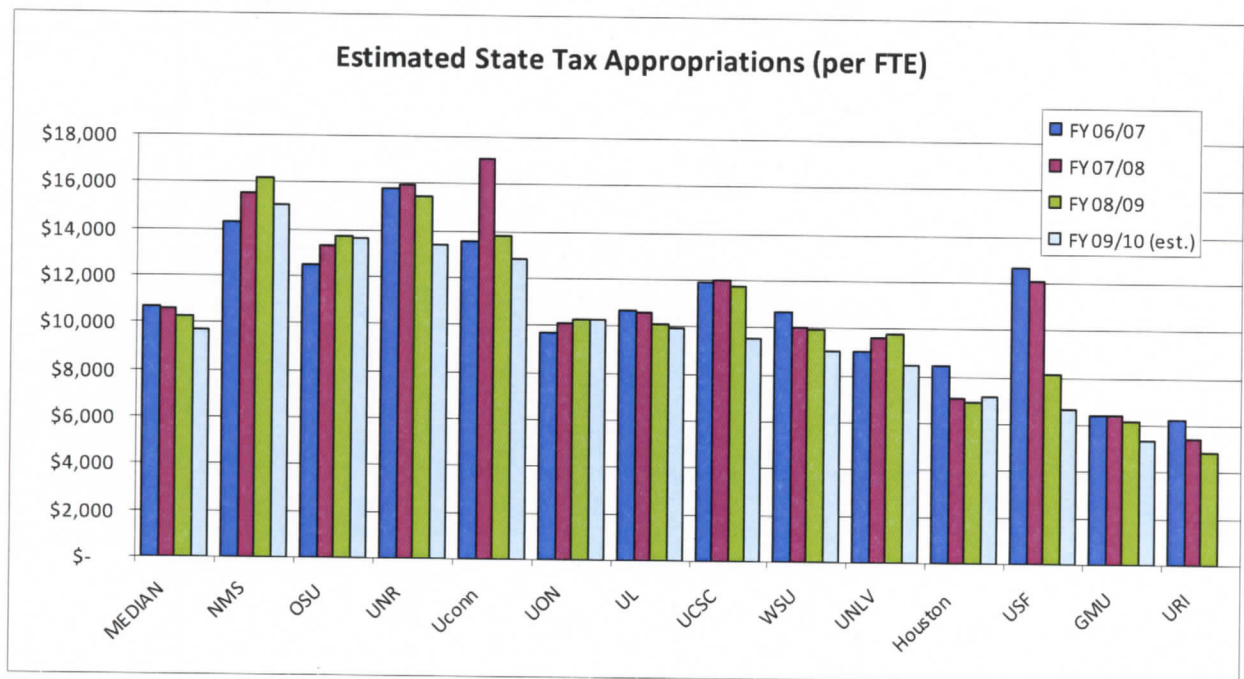




Table 4

Estimated State Tax Appropriations per FTE Enrollment				
Institution	FY 06/07	FY 07/08	FY 08/09	FY 09/10 (est.)
New Mexico State University	\$ 14,340	\$ 15,541	\$ 16,200	\$ 15,022
Oklahoma State University	\$ 12,529	\$ 13,308	\$ 13,735	\$ 13,655
University of Nevada-Reno	\$ 15,776	\$ 15,960	\$ 15,480	\$ 13,359
University of Connecticut	\$ 13,558	\$ 17,099	\$ 13,798	\$ 12,844
University of Oklahoma-Norman	\$ 9,709	\$ 10,127	\$ 10,251	\$ 10,251
University of Louisville	\$ 10,710	\$ 10,602	\$ 10,144	\$ 9,711
University of California-Santa Cruz	\$ 11,879	\$ 11,995	\$ 11,749	\$ 9,506
Washington State University	\$ 10,657	\$ 10,036	\$ 9,980	\$ 9,055
University of Nevada-Las Vegas	\$ 9,043	\$ 9,622	\$ 9,797	\$ 8,455
University of Houston	\$ 8,475	\$ 7,049	\$ 6,879	\$ 7,146
University of South Florida	\$ 12,639	\$ 12,060	\$ 8,163	\$ 6,660
George Mason University	\$ 6,406	\$ 6,442	\$ 6,151	\$ 5,371
University of Rhode Island	\$ 6,269	\$ 5,431	\$ 4,845	**
<b>MEDIAN</b>	<b>\$ 10,710</b>	<b>\$ 10,602</b>	<b>\$ 10,251</b>	<b>\$ 9,711</b>
** indicates universities for which the estimated budget changes for FY 09/10 have not been determined and/or FTE enrollment was not provided.				
Numbers in red indicate a decrease or no change in the amount from the previous fiscal year.				
Universities are ranked according to largest state appropriation per FTE enrollment (estimated) for FY 09/10.				
The University of Oregon was not included in this comparison due to the Grapevine Project not delineating appropriations outside of the Oregon University System, which is inclusive of all institutions of higher education in the State of Oregon.				

This indicates that as universities continue to grow in the number of students enrolled, in order to maintain positive growth in budgets, increases must occur that are sufficient to withstand enrollment growth. In the case of the Oklahoma institutions, despite the influx of stimulus money (a one-time contribution), if growth in enrollment occurs, the state tax

appropriation effort per FTE will still decline from the previous fiscal year. In instances such as this, increases in tuition may be necessary.

### **Change in Tuition as Compared to State Tax Appropriations**

As demonstrated in Table 5, in contrast to state tax appropriations per FTE, it is notable that in only four instances tuition decreased from one fiscal year to the next. This is consistent with the overall trend of increasing tuition nationwide. As state tax appropriations decrease, tuition may be used as a tool to overcome this decrease in funding. However, as Kane et al. (2003) discuss, the increases in tuition are generally not large enough to completely offset the reductions in state tax appropriations. Since institutions, legislators and decision makers often face a backlash when tuition increases are proposed, the increases actually enacted generally do not completely make up for reduced state support.

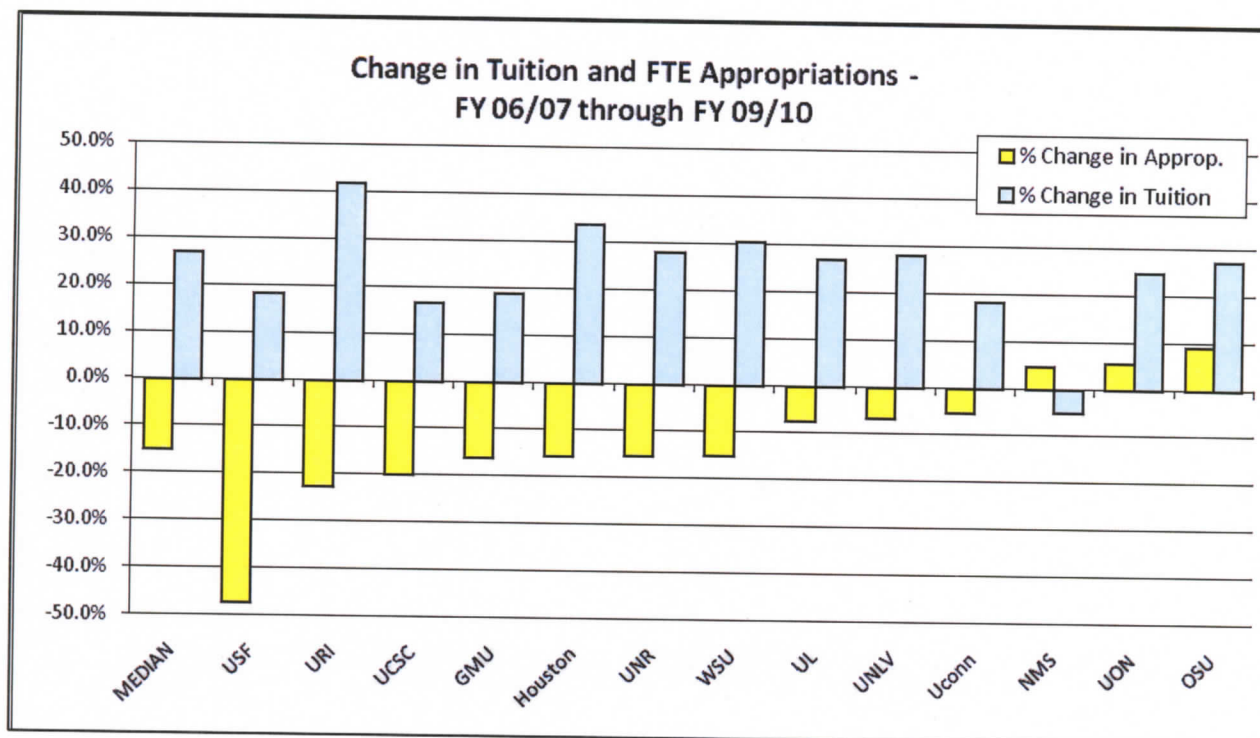
Figure 2 demonstrates the change in both appropriations per FTE and base tuition from FY 06/07 to FY 09/10 (estimated). With the exception of New Mexico State University, Oklahoma State University and the University of Oklahoma-Norman, each of the comparison institutions experienced a decrease in state tax appropriations and an increase in tuition. Further demonstrated is the greater percent increase in tuition as compared to the percentage decrease in state tax appropriations.

Notably, both the University of Nevada-Las Vegas and the University of Nevada-Reno have the same base tuition (referred to as “registration fees” according to the NSHE Procedures and Guidelines Manual). With the exception of the University of California system, for the compared peer institutions, setting tuition rates identically across each university appears to be the exception rather than the rule.

Table 5

Base Tuition (30 credit hours per year, resident undergraduate)				
Institution	FY 06/07	FY 07/08	FY 08/09	FY 09/10
University of California-Santa Cruz	\$ 7,603	\$ 6,636	\$ 8,625	\$ 8,878
University of Louisville	\$ 6,252	\$ 6,940	\$ 7,564	\$ 7,944
University of Connecticut	\$ 6,456	\$ 6,816	\$ 7,200	\$ 7,632
University of Rhode Island	\$ 5,258	\$ 5,656	\$ 6,440	\$ 7,454
Washington State University	\$ 5,432	\$ 5,812	\$ 6,218	\$ 7,088
University of Houston	\$ 4,343	\$ 4,826	\$ 5,213	\$ 5,809
George Mason University	\$ 4,752	\$ 5,035	\$ 5,526	\$ 5,640
University of Oregon	\$ 4,164	\$ 4,341	\$ 4,494	\$ 5,202
University of Nevada – Las Vegas	\$ 3,278	\$ 3,623	\$ 4,005	\$ 4,200
University of Nevada-Reno	\$ 3,278	\$ 3,623	\$ 4,005	\$ 4,200
Oklahoma State University	\$ 3,099	\$ 3,263	\$ 3,585	\$ 3,941
University of South Florida	\$ 3,310	\$ 3,416	\$ 3,383	\$ 3,917
New Mexico State University	\$ 3,918	\$ 4,230	\$ 3,540	\$ 3,720
University of Oklahoma-Norman	\$ 2,862	\$ 2,609	\$ 2,830	\$ 3,573
<b>MEDIAN</b>	<b>\$ 4,254</b>	<b>\$ 4,584</b>	<b>\$ 4,854</b>	<b>\$ 5,421</b>
Numbers in red indicate a decrease or no change in the amount from the previous fiscal year.				
Universities are ranked according to largest estimated base tuition in FY 09/10.				

Figure 2



### Ratio of Tuition Revenue Collected to State Tax Dollars Appropriated

This metric demonstrates which source provides the larger effort toward contributing to financing the institution. The value can be interpreted as the number of dollars of state appropriations per each one dollar of tuition collected. The larger the value, the more the university relies upon state tax appropriations and less upon tuition. Smaller values indicate the university is increasingly more reliant upon tuition.

Since appropriations per FTE include both in- and out-of-state enrollment, it is necessary to estimate the total tuition revenue per FTE enrollment using both in- and out-of-state tuition values and enrollment data in order to create an equitable comparison. Using data from each



university's Common Data Set (Appendix B) and FTE enrollment obtained from each university, tuition revenue per FTE enrollment was derived.

The same assumptions for fiscal year 09/10 apply here as have been described in previous sections:

1. Estimated state appropriations are reflective of the potential budget changes facing the universities
2. Full-time equivalent enrollment is assumed to increase by the average change from FY 07/08 to FY 08/09 across all included peer institutions

For each of the fiscal years, the University of Nevada-Reno's ratio is well above the median value for included peer institutions. The University of Nevada-Las Vegas's ratio is either at or just slightly above the median value. This indicates a further disparity in the funding mechanisms for the two institutions. The University of Nevada-Las Vegas is less dependent upon state funds compared to tuition than the University of Nevada-Reno. Still, the ratio indicates that a fluctuation in state appropriations leaves the University of Nevada-Las Vegas vulnerable to deficient funding.

Values that approach \$1.00 indicate an increasingly equal share of funding from both tuition and appropriations. Universities whose ratios approach \$1.00 may be able to make up for fluctuations in state appropriations through smaller changes in tuition than schools whose ratio is much greater than \$1.00. If the schools with a large ratio experience significant reductions in state support, a greater percentage of tuition increase is necessary to overcome the reduction in state funding than those schools with small ratios. Alternately, if decision-makers opt to keep tuition from rising dramatically, universities will face difficult choices involved with reduced state support and lack of alternate funding sources.

Table 6

<b>Ratio of Tuition per FTE to State Tax Appropriations per FTE</b>				
<b>Institution</b>	<b>FY 06/07</b>	<b>FY 07/08</b>	<b>FY 08/09</b>	<b>FY 09/10</b>
New Mexico State University	\$ 2.65	\$ 2.49	\$ 3.09	\$ 2.73
Oklahoma State University	\$ 2.86	\$ 2.87	\$ 2.70	\$ 2.44
University of Nevada-Reno	\$ 3.18	\$ 2.92	\$ 2.65	\$ 2.18
University of South Florida	\$ 3.42	\$ 3.14	\$ 2.16	\$ 1.52
University of Oklahoma-Norman	\$ 2.01	\$ 2.29	\$ 2.09	\$ 1.65
University of Nevada-Las Vegas	\$ 1.68	\$ 1.67	\$ 1.63	\$ 1.34
University of Houston	\$ 1.88	\$ 1.41	\$ 1.28	\$ 1.19
University of Connecticut	\$ 1.43	\$ 1.71	\$ 1.30	\$ 1.14
Washington State University	\$ 1.72	\$ 1.47	\$ 1.41	\$ 1.12
University of Louisville	\$ 1.40	\$ 1.28	\$ 1.13	\$ 1.05
University of California-Santa Cruz	\$ 1.51	\$ 1.67	\$ 1.31	\$ 1.03
George Mason University	\$ 1.03	\$ 1.00	\$ 0.88	\$ 0.75
University of Rhode Island	**	\$ 0.49	\$ 0.40	**
<b>MEDIAN</b>	<b>\$ 1.80</b>	<b>\$ 1.67</b>	<b>\$ 1.41</b>	<b>\$ 1.34</b>
** indicates universities for which the estimated tuition changes for FY 09/10 have not been determined and/or FTE enrollment was not provided.				
Numbers in red indicate a change from the previous year that puts the ratio closer to 1 to 1.				
Universities are ranked according to largest ratio in FY 09/10.				
The University of Oregon was not included in this comparison due to the Grapevine Project not delineating appropriations outside of the Oregon University System, which is inclusive of all institutions of higher education in the State of Oregon.				

## FINANCIAL AID

Discussion of financial aid levels is critical to the assistance of analyzing higher education tuition (Hearn, Griswold & Marine, 1996). Discussion of aid and tuition helps frame the equity issues of increasing tuition costs. Table 7 outlines the percentage of students utilizing financial aid and tuition compared to the average financial aid package, while Table 8 includes descriptions of the most common types of financial aid. As these are all public universities, each offers a full breadth of financial aid to help meet students' needs.

Table 7

Financial Aid Awards				
Institution	Students Utilizing Financial Aid	Average Undergrad Tuition	Average Undergrad Financial Aid Package	Financial Aid Dollars Awarded for each Tuition Dollar Received
University of California- Santa Cruz	42.2%	\$7562	\$16254	\$2.20
University of Rhode Island	38.4%	\$13732	\$12654	\$0.90
New Mexico State University	37.7%	\$5237	\$7774	\$1.50
Oklahoma State University	35.7%	\$5598	\$10221	\$1.80
University of Oklahoma- Norman	32.8%	\$4906	\$10468	\$2.10
Washington State University	32.4%	\$7974	\$10336	\$1.30
University of Connecticut	31.5%	\$11220	\$11048	\$1.00
University of Louisville	30.7%	\$9417	\$9981	\$1.10
University of Houston	29.7%	\$5382	\$11660	\$2.20
University of Oregon	28.0%	\$9269	\$8735	\$0.90
University of South Florida	26.2%	\$4306	\$9666	\$2.20
University of Nevada- Las Vegas	21.6%	\$6434	\$7910	\$1.20
University of Nevada- Reno	19.7%	\$6236	\$6943	\$1.10
George Mason University	17.2%	\$7022	\$9738	\$1.40



Table 8

Financial Aid Description	
Financial Aid Type	Description
Federal Loans	Loans supported by the federal government that allow students and parents to borrow at lower interest rates than most private loans ( <a href="http://studentaid.ed.gov">http://studentaid.ed.gov</a> ).
Private Loans	Loans that are issued by a non-federal source, such as a bank ( <a href="http://studentaid.ed.gov">http://studentaid.ed.gov</a> ).
Grants	Unlike loans, grants are student aid opportunities that do not have to be repaid. In most cases, in order to qualify for a grant, the student must demonstrate financial need ( <a href="http://studentaid.ed.gov">http://studentaid.ed.gov</a> ).
Work- Study	A program that provides employment to students ( <a href="http://www.fafsa.ed.gov">www.fafsa.ed.gov</a> ).
Scholarships	Aid provided by private entities that are based on criteria determined by the issuing entity.
Veterans Benefits	Aid provided for those who are active or inactive military

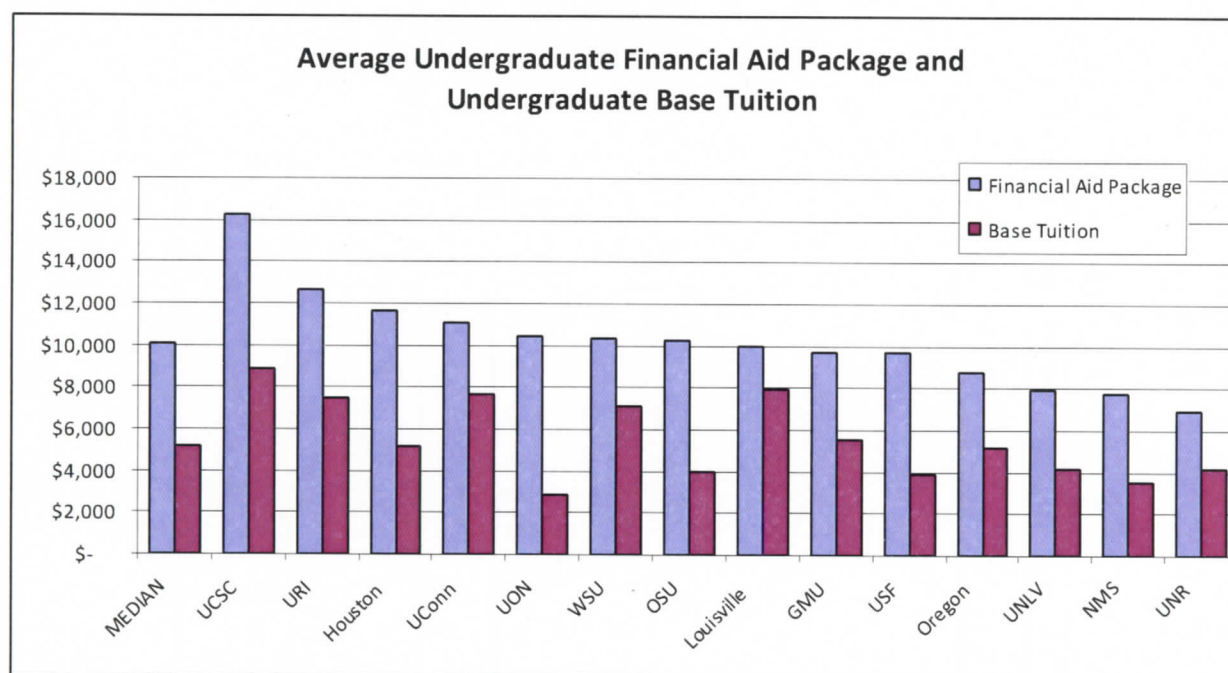
As discussed in the literature review, two trends are generally apparent in the relationship between tuition and financial aid. Archibald and Feldman (2004) describe the appeal of low tuition-low financial aid. Altbach et al. (2005) outline criticisms of the high tuition-high financial aid trend. Despite the debate over the worth of either strategy, implications for both students and universities are present. Low tuition-low financial aid is generally considered beneficial to students. Indeed, NSHE has committed itself to offering tuition rates that approximate the WICHE median values. However, as tuition has generally been raised to keep pace with the cost of living adjustments, NSHE has not provided additional need-based financial aid (NSHE, 2008).

Figure 3 demonstrates the University of Nevada-Las Vegas's relationship to the comparison peer institutions in regards to the percentage of students utilizing financial aid and the average financial aid package. The data used was obtained from each university's Common Data Set (Appendix B). As demonstrated, the University of Nevada-Las Vegas is among the



lowest in terms of the percent of students utilizing financial aid, almost a full 10 percentage points lower than the median value of the compared peer institutions. Following a similar trend, the average undergraduate financial aid package for the University of Nevada-Las Vegas students is well below the median value. Interestingly, the University of Nevada-Reno's average undergraduate financial aid package is the lowest among comparison peer institutions. Combined with the below-median value base undergraduate tuition, this data supports NSHE's overall philosophy of low tuition-low financial aid.

Figure 3



High tuition-high financial aid structures are generally considered to be of benefit to institutions. High tuition theoretically should provide increased resources to the institution. Provision of high levels of financial aid compensates for the tuition levels. However, institutions are generally reluctant to adopt this strategy due to the potential for political outcry at the appearance of increased burden being placed on students (Rizzo, 2004). Indeed, meetings from

the April 2008 meeting of the Board of Regents of the NSHE indicate concern among higher education leaders in Nevada for keeping tuition low.

Further, research by Hearn et al. (1996) confirms that high tuition and high financial aid are linked. In addition, regional influence is strong. The southwest was determined to have consistently low tuition-low financial aid philosophies. If NSHE is to compare the institutions it oversees to other institutions in the southwest, the low tuition-low financial aid philosophy will have an effect. Interestingly however, the University of California-Santa Cruz has consistently had the highest base in-state tuition among the examined institutions during the study period of FY 06/07 through 09/10. Further examination as to the determining factors for setting tuition levels within the University of California System would be warranted, as this seemingly goes against the general trend of low tuition within the southwest.

As noted in the Tuition Control and Retention section, approximately 33% of tuition increases at the University of California-Santa Cruz is provided for financial aid. Questionnaire results indicated that provision of financial aid is often included when increases in tuition are determined to be necessary.

### **STUDENT RESIDENCY**

While exploring tuition, the effects of student residency on tuition were analyzed. Resident students are generally defined as students who reside in the state where the university is located. Conversely, non-resident students are defined as students who do not reside in the state where the university is located, or reside in the state solely for the purpose of education (as opposed to work, family, etc). Each state and/or university has different criteria for determining the residency status of their students. For this study, three aspects of non-resident tuition were examined: if institutions that attract more non-resident students tend to have higher or lower non-

resident tuition; the relationship between resident and non-resident tuition and the percentage of students in each resident category; as well as the relationship between resident and non-resident tuition and control or tuition by institution. Table 9 outlines the results of this examination.

Levels of tuition vary widely from institution to institution. Schools on the East Coast (George Mason University, University of Connecticut, and University of Rhode Island) tended to be on the higher end of both types of tuition, but especially in non-resident tuition. West Coast schools (especially New Mexico State University, Oregon State University, University of Nevada-Reno, and University of Nevada-Las Vegas) had lower tuition for residents and non-residents, the primary exception to this trend being University of California-Santa Cruz.

A third trend appeared regarding the percentage of students on campus identified as non-residents. The six state schools in the five populations with the highest state population (according to the 2008 Census estimates), had the six highest percentages of non-resident students. These states are, in order from highest to lowest of percentage of non-resident students, Texas (University of Houston), California (University of California-Santa Cruz), Florida (University of South Florida), Washington (Washington State University), and Virginia (George Mason University).

The results were fairly inconsistent for determining if institutions that attract more non-resident students tend to have higher or lower corresponding tuition. Using data from the Common Data Sets (Appendix B), each of the University of Nevada-Las Vegas's peer institutions were ranked in order of both the percentage of student population made up of non-resident students, and the level of non-resident tuition. While the University of Rhode Island was the highest on both scales (highest percentage of non-resident student population and the highest level of non-resident tuition), the rest of the schools show no consistent trend. From this



data, it can be inferred that the level of non-resident tuition does not have a great effect on the percentage of non-resident students in the total student population.

Table 9

Resident versus Non-resident students and tuition								
Institution	% Resident undergrads	% Non-resident undergrads	Base Resident Undergrad Tuition	Base Non-Resident Undergrad Tuition	Ratio of Resident to Non-Resident	Region	State Population (US Census Bureau, 2008)	State Population Level
University of Rhode Island	61.00%	39.00%	\$7,454	\$23,552	\$3.20	East	1,050,788	Low
University of Oregon	70.00%	30.00%	\$5,202	\$18,759	\$3.60	West	3,790,060	Middle
University of Oklahoma-Norman	74.00%	26.00%	\$2,830	\$10,814	\$3.80	Mid-West	3,642,361	Middle
University of Connecticut	77.00%	23.00%	\$7,632	\$23,232	\$3.00	East	3,501,252	Low
University of Nevada-Las Vegas	81.90%	18.10%	\$4,200	\$16,540	\$3.90	West	2,600,167	Low
New Mexico State University	83.00%	17.00%	\$3,540	\$13,522	\$3.80	West	1,984,356	Low
University of Nevada-Reno	83.50%	16.50%	\$4,200	\$16,540	\$3.90	West	2,600,167	Low
Oklahoma State University	84.00%	16.00%	\$3,941	\$14,295	\$3.60	West	3,790,060	Middle
University of Louisville	87.00%	13.00%	\$7,944	\$19,272	\$2.30	Mid-West	4,269,245	Middle
George Mason University	90.00%	10.00%	\$5,526	\$20,490	\$3.70	East	7,769,089	High
Washington State University	92.00%	8.00%	\$7,088	\$18,164	\$2.60	West	6,549,224	High
University of South Florida	96.90%	3.10%	\$3,917	\$16,634	\$4.20	South	18,328,340	High
University of California-Santa Cruz	97.00%	3.00%	\$8,878	\$21,669	\$3.00	West	36,756,666	High
University of Houston	98.00%	2.00%	\$5,213	\$13,643	\$2.60	South	24,326,974	High
<b>MEDIAN</b>	<b>83.80%</b>	<b>16.30%</b>	<b>\$5,208</b>	<b>\$18,082</b>	<b>\$3.60</b>			

The second item of examination was whether there is a relationship between resident and non-resident tuition and the percentage of students identifying themselves as non-residents.

While there did seem to be a small correlation between the level of tuition (institutions with



relatively high resident tuition often had relatively high non-resident tuition, and vice versa), this correlation does not extend in the percentage of the student population identifying themselves as non-residents. Similar to in the last question, the rankings within the peer institutions are scattered, with no consistency from which to draw a conclusion, other than that no pattern exists.

Finally, the last item of examination posed was if there is a relationship between resident and non-resident tuition and the control and retention that institutions have on their tuition. As with the rest of these categories, there is no consistent pattern that appears between these data. While the majority of peer institutions' tuition is determined by a Board of Regents (or similar structure), this group includes some of the highest, middle, and lowest resident and non-resident population levels. Similarly, many of the schools retain their own tuition upon receipt from students, but these schools show no consistency in their relative levels tuition.

After examining the above three areas, it becomes clear that the differences and levels of resident versus non-resident tuition have relatively little affect on student populations, control of tuition levels, or retention of tuition funds. These levels, while not completely independent of each other, do not show a consistent effect across institutions.

## **DISCUSSION**

The University of Nevada-Las Vegas's consistently low base tuition levels and NSHE's commitment to low tuition as a mechanism to increase accessibility is a commendable strength for fostering higher education as a means for personal and economic improvement. Since the perception of tuition cost has a greater effect in states with less-educated populations (Hearn et al. 1996), tuition may need to stay low in order to persuade potential students from families with less education to pursue higher education. This is apparent for Nevada in particular.

As the economy faltered in 2007 and has continued to decline, the reality faced by many states has been that of decreased tax revenue and diminishing state budgets. This reality has been felt by most public universities in the form of reduced state appropriations. When universities commit to low levels of tuition, there is the potential for two scenarios:

- 1) In order for decreases in state funding to be overcome by the use of tuition increases, the increase in tuition must be a much larger percent increase than the percent decrease in appropriations. This is especially true for universities whose ratio of tuition to appropriations is very high. The resultant impact on students may be felt to a greater degree. Further, if the impact on students is too great, they may choose alternate schools to attend or to abandon higher education altogether.
- 2) If the commitment to low tuition is sustained, minor increases generally cannot make up for reduced state support. As a result, overall cutbacks within universities may occur. This has the potential to impact programs, course offerings, and the overall quality of the educational experience (Archibald et al., 2004). The result is a deleterious effect on universities such as the University of Nevada-Las Vegas which are working to grow into the status of a research institution.

As in the case of Nevada and its institutions, when tuition is used as an offset to state appropriations the incentive to use tuition as a revenue source is unlikely. Increases in tuition cause student backlash due to the amount that goes to the state general fund rather than directly toward the students' university (Nevada System of Higher Education, 2008). Because of the significant percentage of tuition that is funneled to the State of Nevada's general fund to offset state appropriations (approximately 66%), increases provide little direct benefit to the university.

Additionally, multiple members of the NSHE Board of Regents have stated that the institutions that make up NSHE exist as so-called “low cost providers” (Nevada System of Higher Education, 2008). As such, there is a reluctance to raise tuition to levels that will put undue burden on the students who choose to attend these institutions. Yet, at the same time, if tuition and fees do not increase, a greater burden is placed upon the state’s already-stressed general fund. And so the conundrum exists.

However, the influences on tuition philosophies exist beyond simply students and decision makers. Region also influences philosophies. It is unclear exactly how region affects institutional decisions. Hearn et al. (1996) confirms that institutions which choose to adopt policies that are contrary to the norm for their region may face a backlash, politically, socially, or economically. The latter is especially of concern for traditionally low-tuition regions where students may have the ability to choose alternative schools if tuition levels are raised beyond their ability or willingness to pay.

The reality is that for higher education, just as with any public or private entity, operational costs rise. As former University of Nevada-Las Vegas President David Ashley noted in the April 2008 NSHE Board of Regents meeting, because approximately 2/3 of tuition increases support the general fund, the actual increases in tuition are below the rate of inflation (Nevada System of Higher Education, 2008). Without an actual increase in state tax support – not the tuition dollars which feed the general fund – institutions may face a difficult time meeting the basic operational and instructional cost increases due to inflation.



## **RECOMMENDATIONS**

The State of Nevada has nurtured a university system; it must now have the faith and trust to grant that system the authority to cultivate itself. Control by the State of Nevada and NSHE has hampered the University of Nevada-Las Vegas's ability to respond to the high turbulence in the current economic and political environment. The fact remains that in order for a definitive change to occur in the funding of higher education in the State of Nevada, it is mandatory that the University of Nevada-Las Vegas be granted full autonomy over the administration of tuition revenues. Strict accountability measures and adherence to revised collaborated policies and procedures is inclusive to the granting of full autonomy. The University of Nevada-Las Vegas must display full transparency to maximize the benefits for the students and the communities they serve. Total amount of tuition revenues generated, expended, and invested from undergraduate students per FTE enrollment per fiscal year must be documented and accessible to affect the desired results. Transparency and accountability can only enhance the University of Nevada-Las Vegas' financial responsibilities to all concerned.

As economic fluctuations occur and institutions enact change to cope, the level of accountability must be increased to ensure maximum possible benefit. The empowerment of full autonomy to the University of Nevada-Las Vegas may provide a mechanism to readily respond to unpredictable financial turmoil. In a state as diverse as Nevada, requiring institutions to behave similarly is unrealistic. Circumstances are entirely different across the state and require that institutions be able to act accordingly in response to its own environment.

However, if this is undertaken, it would be with the understanding of the responsibility the State of Nevada would undertake. Without tuition dollars supplementing appropriations, this



would require the state to provide actual dollars from the general fund – a general fund that is already under great stress. This is not without consideration in this recommendation.

Total autonomy would require a major overhaul of the current established procedures. To realize these changes, further research is needed to determine what actions are necessary and to what degree. Inclusive to the aforementioned recommendations, collective agreement amongst all participants can only produce an elite financial system for funding higher education.

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