An Evaluation of Appalachian State University Budgetary Model Effectiveness through Departmental Satisfaction

by

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TABLE OF CONTENTS

THESIS ABSTRACT

The purpose of this study is to evaluate the effectiveness of Appalachian State University's budgetary model when looking at departmental user satisfaction. This thesis investigates how satisfied departmental heads, in charge of their respective department's budget, are with Appalachian State University's budgeting process. In addition to the data collected on user satisfaction, a literature review was conducted to review the public budgetary systems that affect the budget of Appalachian State University – starting with the United States budgetary system and working down through the public sector budgetary levels that lead to the budgets of Appalachian State University departments. The budget of Appalachian State University was reviewed as a whole, but for the purpose of this thesis the portion of Appalachian State University's budget that allocates funding to Appalachian State University departments was reviewed more in depth. This portion of Appalachian State's budgetary model was evaluated using the user satisfaction data collected through survey.

To collect data on departmental budgetary satisfaction, a survey was conducted. The survey collected data from a sample of the population of Appalachian State University departments that receive a portion of the Appalachian State University budget. The survey questions fit into the themes of budgetary funding satisfaction, budgetary needs, and the effects seen from Appalachian State University's budgetary process.

It was found that the Appalachian State University budgetary model was underperforming when evaluated based on user satisfaction. While many factors had to be accounted for, the data collected pointed towards ineffective trends in the portion of Appalachian State's budgetary model that distributes funding to all campus departments. These trends were found to be the result of several factors. Within this thesis the implications of these trends and their potential causes are discussed.

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DEDICATION

I would like to thank my parents, Kimberly A. Chappell and William D. Gilliam, for their incredible support throughout my life. I cannot begin to understand the struggles you both have surmounted to get me where I am today. To my siblings, Troy J. Folkner and Evelyn Y. Gilliam, and the rest of my family, who have had a remarkable hand in my success, thank you for the love and continued support.

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Sincerely,

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INTRODUCTION

Overview

This thesis will build upon a general understanding of budgets, the budgeting process, and the effects of such a process on an institution. For effective ongoing budgetary implementation, an institution must make use of critical self-review.[1] Most institutions track multiple performance measures and Appalachian State University is no exception. Appalachian State University monitors user satisfaction by allowing departmental heads the opportunity to provide feedback directly to upper-level administration. Departmental input is especially used during budgetary formulation. Institutions tend to fall short in gathering user input throughout the self-review process. By failing to address user dissatisfaction, entities can miss opportunities to adjust budgetary models to increase budgetary model efficiency.

In this thesis, the researcher will couple a review of departmental budgetary satisfaction at Appalachian State University with a literature review of the budgetary model in use at Appalachian State University. To understand the budgetary model in play at Appalachian State University, the literature review will encapsulate knowledge on the budgetary predecessors of the University as well. These predecessors start with the United States Government and progress through the North Carolina State budget, the University of North Carolina School System budget, and culminate at the Appalachian State University budget. Predecessor budgetary process reviews will provide context for

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[1] For the purpose of this thesis, critical self-review is the process of using various performance measures alongside user satisfaction assessments to evaluate the effectiveness of a particular budgetary model. This definition enhances the process of, "looking at your progress, development and learning to determine what has improved and what areas still need improvement" (Budget 2017).

understanding Appalachian State University's budgetary process. The budgetary predecessors of Appalachian State provide budgetary model templates to one another, progressing downward toward the Appalachian State budgetary model. Furthermore, through a trickle-down effect,[2] funding finds its way into the Appalachian State University budgetary model. The Appalachian State University budgetary process will then be explained in depth to provide a knowledge basis for the system to be reviewed. It should be noted that the specific portion of the Appalachian State University budgetary model to be reviewed is the portion that deals with funding allocations to the departments across the campus. This portion of the Appalachian State Budgetary model was that which was also evaluated through survey.

To review Appalachian State University's budgetary process, the researcher surveyed a sample of departmental heads[3] across the University. These departmental heads were in charge of their respective department's allocation of the University budget at the time of the survey. The survey gathered responses that relayed departmental satisfaction with Appalachian State University's budgetary process by inquiring about three general themes. In particular the researcher gathered information from department heads regarding whether they felt as though they had received adequate funding, potential strategies that would meet their respective departmental needs, and specific effects departmental heads have experienced from the current budgetary system. The researcher then used the data to evaluate the allocations process of the Appalachian State University budgetary model based on departmental satisfaction. Often times, we see that, "every

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[2] For the purpose of this thesis, the trickle-down effect is when funding flows down through predecessor institutions arriving at a final institution.

[3] For the purpose of this thesis departmental heads include all persons in charge of funding allocated to a department by Appalachian State University.

agency wants more money" (Wildavsky 1986, p.7). Upon observation, humans in general are not content with what they are given and as expected, this trend was reflected in the survey data. The data gathered pointed towards unfavorable trends in the budgeting process. These trends could have been the result of poor administrative evaluation of user satisfaction as well as several other lurking variables discussed in the conclusion section of this thesis.

What is a budget?

Within the financial sector of any establishment, budgets can be used as fundamental instruments in strategic planning and performance evaluation. As rudimentary as they may seem, budgets are complex analytical tools - dynamic in practice and exceptionally beneficial to the user. They can be used as, "mechanisms through which subunits bargain over conflicting goals," and "mechanism[s] for allocating resources" (Wildavsky 1986, p.4). Conventional definitions state that, "a budget is a statement of the financial position of an administration for a definite period of time based on estimates of expenditures during the period and proposals for financing them." A budget can also be, "a plan for the coordination of resources and expenditures" or "the amount of money that is available for, required for, or assigned to a particular purpose" (What is self-evaluation? 2017). For the purpose of this thesis, the word budget will include all three of the aforementioned definitions.

The overarching goal of a budget for an entity should be not only efficiency but also general user satisfaction. At the surface level, budgets help in, "[identifying] wasteful expenditures, [adapting] quickly as [institutional] financial [situations change], and [achieving institutional] financial goals" (What is a budget and why is it important? 2017). However, on a deeper level, budgets serve as an institutional lubricant by providing the means for accountability and financial mobility. To satisfy that criteria, budgets must be carefully constructed, appropriately allocated, and strictly monitored to ensure, "the behavior intended by the authors of a budget actually [take] place" (Wildavsky 1986, p.4). Within each of these three phases, as with many things, potential positive and negative effects can be found. While many modern budgetary models utilize departmental heads to compile input on respective departmental budgets, the aggregate entity budget is ultimately in the hands of senior management.[4]

The Budgeting Process and Its Potential Effects

Inside most entities, budgets are either created by senior management or by an affiliate within the institution that reports their budgetary plan back to senior management for authorization. Historically, senior management created budgets and based budgetary decisions on their own uninformed bias regarding which aspects of the entity they felt should be prioritized with greater funding. As expected, this strategy was ineffective for the intricacies of financial planning. Removed from departmental operations and overwhelmed by the complexity of detail required, senior management failed to recognize specific departmental needs when constructing the entity budget (Wildavsky 1986, p.9). Consequently, a revitalized method of budget planning arose through the practice of delegation. This caused a distinct shift in the standard budgeting process as

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[4] For the purpose of this thesis, senior management are those in charge of allocating the funds of a specific entity to the entity's component departments. At Appalachian State University this includes administrators that help construct the budget and evaluate budgetary allocation needs.

component units of entities began to evaluate their own needs that were relayed to management through budgetary plans requiring approval. This shift provided more accurate budgetary planning and better partitioning of responsibility to particular departments.

While user input of the budgeting process can add value to the planning process by providing a more accurate representation of departmental needs, it can also have detrimental effects. With increased departmental involvement in the budgeting process, three general outcomes are possible at the departmental level. The department accurately portrays its needs and receives the appropriate budgetary amount, the department may portray too much monetary need and receive too much support, or the department may fail to acknowledge all of its departmental needs and must run on a shortage. The aforementioned outcomes result from, respectively, proper knowledge and experience; greed for more resources, inexperience, and/or misjudgment; or overly conservative estimates of departmental need, inexperience, and/or misjudgment. The latter two outcomes represent inefficient budgetary planning. Unfortunately, inefficient budgetary planning lays a weak foundation upon which to build a fiscal model, therefore creating financial issues for the entity as a whole.

Under the general modern budgetary model, departmental heads relay budgetary needs to senior management, who then formulate a budgetary plan for the entire entity. It is the responsibility of that senior management to allocate funding according to the need relayed to them. This is easier done with a budget that is greater than the aggregate expected need of all departments. Unfortunately, more often than not the overall requested budget amounts in aggregate, significantly outweigh the amount of funding to be disbursed. Senior management must then use professional judgment to allocate scarce resources to best meet overall departmental needs. Inefficient departmental budgetary planning can negatively ripple throughout the entire entity. When allocating funding among departments, management may try to accommodate the lofty budgetary estimates of one department, thus inadvertently compromising the funding to other departments that submitted more conservative estimates. Inefficient, inaccurate planning can result in departmental cuts and hindered departmental performance. As the allocation phase progresses from the planning phase, these effects are multiplied.

An integral component of a budget is its ability to build upon itself from one fiscal year to the next. This is when the final step of the budgeting process comes into play: the strict following of the planned expenditures by department. Should a department receive an inflated budget due to lofty departmental requests during planning, senior management could identify the error through continued critical review of the budgetary expenditures. Without critical self-review of the allocated budgets, the allocated amount could go unquestioned. Excess funds allocated to the department could be spent flippantly to show a continued need for the funding without legitimate usage based on the initial budgetary request. This ongoing effect on the budgeting process could prove hazardous to other departments and result in budget cuts. Critical evaluation is necessary post-budget allocation to ensure compliance and valid departmental need.

The varied effect of the budgeting process combined with an inflexible outlook on the budgeting process can end up achieving alternate goals other than those intended by the budget: financial efficiency and general user satisfaction. To combat this entities must consistently reevaluate their budgeting process and continuously work to improve the budgeting process.

LITERATURE REVIEW

To understand the budget of Appalachian State University the budgeting processes of the predecessor entities[5] must be understood. These predecessors' budgetary models serve as templates for each subsequent entity and their budgets ultimately feed into Appalachian State University's. Appalachian State University is a public university and as a result receives funding that trickles down through the United States government, the state of North Carolina government, and the University of North Carolina System. A brief description of the budgeting processes of each of these entities will provide context for the Appalachian State budgetary model.

Brief Budgetary System of the United States of America:

The Treasury Department of the United States, the first budgeting entity to be established in the United States' government was founded in 1789. The Treasury Department was created under the newly ratified constitution at the first congressional meeting of the United States to, "serve as a permanent institution to manage the government's finances" (Kramer 2012, p.20). It was not until much later that Congress passed the Budget and Accounting Act of 1921: the first major legislation intended to improve the budget process and the financial management system of the US. This act not only established agencies for the oversight of the federal budget, but also mandated the creation of the Office of Management and Budget. To this day, these entities act to oversee the preparation of strategic plans and federal budgets. The Act also created the

[5] For the purpose of this thesis, predecessor entities are public institutions that provide funding to subsequent institutions. In short, funding that comes from the United States government, eventually trickles down to Appalachian State University through the North Carolina State government and then the University of North Carolina System.

General Accounting Office, who was charged with auditing federal spending. Lastly, the Act set in motion a presidential budget proposal process that, to this day, still stands. This process was created to foster accountability in the overall budgeting process. For decades now, the United States has valued the budgeting process. These trends can be seen throughout the various levels of public institutions (Kramer 2012).

From 1921 until 1974, various budgetary models and schemas were utilized, such as Franklin D. Roosevelt's New Deal and Lyndon B. Johnson's Great Society. Throughout the years, the federal budget grew and priorities shifted. In 1974, congress passed the Congressional Budget and Impoundment Control Act; the Act outlines the current budgetary process. This Act limited presidential power, emphasized congressional and house input within the budgeting process, and established the appropriations process by which budgets become law. The appropriations process is arguably the most influential process on public education budgets (Kramer 2012).

Through the appropriations process, subcommittees were created to draft budgetary bills addressing the needs of subcommittee constituents. As far as this thesis is concerned, the most relevant of those subcommittees is the committee of Labor, Health and Human Services, and Education. This subcommittee is responsible for advocating for the Public Education funding. Federal funding higher education is dispersed amongst states based on, "students' financial needs and in the types of research conducted in each state, among other factors." In North Carolina, Federal funding for public higher education historically sits at about 20 percent. While this amount may seem significant, it can hinder the state's ability to effectively fund higher education, precipitating at the university level (Federal and State Funding of Higher Education 2015).

Over the decades the priorities of the United States budget have evolved in an attempt to best accommodate taxpayer needs, but it is questionable as to whether the effects of this prioritization is evident at the university level (Kramer 2012). Ingrained in budgetary principle is the idea of balance -a basic theory in accounting. An entity's expenditures should equal its revenues. This principle should always be considered during the allocation of taxpayer money. While it seems like the budget of the United States government should be the first one to balance, there is no constitutional doctrine in place to ensure this. Throughout the years, there have been several attempts to ratify amendments mandating the balancing of the US budget, but all have failed (Hawks 2003). An unbalanced budget can be both good and bad for an entity – but does the necessity for a balanced North Carolina budget have implications for the Appalachian State University budgetary model?

Brief Budgetary System of North Carolina:

Predictably, North Carolina structures its budgetary system much like that of the United States. Noticeable similarities and significant differences exist between the two. These similarities and differences affect the state budgeting process in notable ways, as well as the University of North Carolina System budgeting process. Higher education accounts for a great deal of North Carolina's budget claiming about 12 percent of the overall state budget (The University of North Carolina at Chapel Hill 2017). In relation to federal spending, higher education spending is a state responsibility (Federal Role in Education 2017).

The burden of developing the North Carolina budget falls upon the North Carolina Office of State Budget and Management. This office is, "authorized to develop the Governor's Recommended Budget and to certify and execute the budget enacted by the General Assembly." The North Carolina Office of State Budget and Management first forecasts state revenues for the fiscal year to estimate the amount of funding that will be available for that year. Then, an analysis of the base budget and continuation of the current budgetary need is done. Costs affiliated with ensuring a stable level of service across multiple fiscal years are analyzed. During this step of the North Carolina budgeting process, the North Carolina Office of State Budget and Management must consider increases in entitlement to public programs such as Medicaid, the debt service fund, other expenses potentially impacted by inflation, and most importantly to this thesis, increases in higher education enrollment. Historically, enrollment increases in higher education are a priority for the Governor of North Carolina. Enrollment in the University of North Carolina System is estimated and funding for the estimated amount of enrollment is all that is included in the budget of North Carolina. Should enrollment be greater than estimated, it is the responsibility of the university to adjust for excess costs. Once the North Carolina Office of State Budget and Management has reconciled the continuation requirements of the budget, they proceed with an analysis of the Governor's priorities and recommendations. Often times, these recommendations come in the form of expansions to and additions to public programs. Included in the Governor's recommendations are campus requests for additional funding which are presented in the form of one unified request that comes from the Board of Governors (North Carolina Office of State Budget and Management 2017).

Once new expenditures and planned revenues are analyzed it is the duty of the North Carolina Office of State Budget and Management to ensure that the new State budget is balanced. To do this, the North Carolina Office of State Budget and Management is sure to only include amounts in the state budget that aggregate to the total amount of forecasted state revenues. Mandatory balancing of the budget is notably different from the United States budgetary model.[6] While a balanced budget sounds favorable at face value, it has greater implications on the subsequent budgetary models. A balanced budget can mean less financial flexibility for the University of North Carolina System, and as a result, the Appalachian State University budgetary model. If funding for a budgetary item is not included in the budget, it is the responsibility of the University to establish a way to fund this item or to not pursue the expenditure at all. Within budgetary allocations themselves, universities have the ability to reallocate their funding to meet campus need (Conrad 2017).

After completion of the balanced budget, the North Carolina Office of State Budget and Management and Governor submit the plan to the General Assembly for approval. If the detailed budget appears unbalanced or if necessary changes are evident, the process begins anew and is conducted until approval is granted. Once the General Assembly approves the budget, the Governor can either sign or veto the budget. Historically, the Governor has approved of the budget and it has been ratified. Funding within the approved state budget is then allocated to the University of North Carolina

[6] In 1977, the balanced budget amendment was sponsored by John Gable and ultimately adopted by North Carolina. The amendment gave constitutional sanction to the balancing of the budget stating that, “The total expenditures of the State for the fiscal period covered by the budget shall not exceed the total of receipts during that fiscal period and the surplus remaining in the State Treasury during that fiscal period” (Balanced Budget Amendment).

System through a process known as Certification.[7] Upon enactment, the balanced budget must be continually surveyed for the collection of the specified revenues (North Carolina Digital Collections 1977). This is done to avoid periods of fiscal deficit. As with most states, North Carolina can spend no more money in a fiscal period than is added in that fiscal period. For State programs and campuses across North Carolina, a period of economic downturn or a poor forecast can result in cuts to their programs. Under the North Carolina budgetary process, all programs are asked to contribute to the deficit through cuts. During the last recession, amounts available to state agencies and campuses were reduced by a set percentage. As revenues continued to decline, budget cuts increased. Within these instances, campuses have jurisdiction over where these cuts will take place within that university (Conrad 2017).

Brief Budgetary System of the University of North Carolina System of Higher Education:

The budgetary model of the University of North Carolina system of Higher Learning has the greatest influence on the Appalachian State University budgetary system because of its close proximity to the University budgetary system. Spanning the entire state of North Carolina, the University of North Carolina system is a strong organization of 16 Universities, including Appalachian State University. The University of North Carolina System is overseen by the Board of Governors and reports to the governor of North Carolina, the Advisory Budget Commission, and the General Assembly. Each year the University of North Carolina system prepares, “a single, unified

[7] Certification is the process through which budgets are established for each campus in the University of North Carolina System of Higher Education. Campus budgets match the amounts in the detail of the North Carolina budget.

recommended budget for all of public senior higher education." The budget must either be accepted or modified until accepted. This process contains notable similarities to the budgetary system of the United States of America and mirrors that of North Carolina.

The funding the UNC system obtains from the state of NC comes from three parts of the NC budget: the base budget, the expansion budget, and the capital budget. The base budget includes necessary funding to continue the current level of service. Within the base budget only adjustments for mandated rate increases and annual programs/salaries are included. Within the base budget process of North Carolina, each campus works with the Office of State Budget and Management to determine their respective base budget. The expansion budget is concerned with operating items. This includes increases and decreases to existing programs as well as additions of new programs. Items requested by the University of North Carolina System are included in the expansion budget as well as funding for adjustments to student enrollments and salary/benefit changes for state personnel. Universities within the University of North Carolina System create individual packages of budgetary requests that are later approved by the Board of Governors. Requests are either system wide initiatives or campus specific items. Within these packages, each University must prioritize its requests. These packages of requests are gathered from all the universities within the University of North Carolina system and consolidated into one large set of requests. University needs are classified as continuing operations, funds for employees, or funds for new programs and other internal dealings. The latter category, funds for new programs and other internal dealings, most directly influence user satisfaction. This category of budgetary requests provides funding for programs within departments and funding for general departmental operations. Lastly, the capital budget includes funding for new buildings and repairs/renovations to existing buildings. Once campuses receive funding for a fiscal year, including expansions for new budgetary items, they are permitted to spend the funds as needed. Universities classified as Special Responsibility Constituent Institutions (currently all public universities in North Carolina fall under this classification) must abide by general State regulations and provisions listed in the budget bill itself, but generally have flexibility in the spending of funding. Details pertaining to each of these components of the North Carolina budget in regards to the University of North Carolina System can be found within the committee report of the annual North Carolina Current Operations Appropriations Act (Budgets and Appropriations 2017).

Prior to approval by state authorities, the University of North Carolina system budget undergoes a thorough budgetary preparation process. Initially, the President of the University of North Carolina System receives general instructions for the budget from the Governor via the State Budget Office. Once these instructions are received, the President of the University of North Carolina System conducts a series of workshops with three administrative bodies: the University of North Carolina General Administration Council, the Chancellors of the University of North Carolina system universities, and the Board of Governors. These three bodies influence the prioritization of later budgetary requests. Instructions pertaining to budgetary requests are provided to campuses. Each University's Chancellor retains the responsibility of deciding on both the scope of greater campus involvement in the budgetary process and the determination of the University's priorities. The Chancellor adjudicates the extent of campus participation in creating the University budget and it follows that the Chancellor ultimately decides the functioning of the institutions budgetary process in relation to user input (UNC Budget Development Process 2011; McCollum 2017).

After individual Universities create their budgets, the plans are subjected to review. The budgetary items categorized as “Continuation Budget” are reviewed by the Vice President of finance, budgetary requests falling within the category of “Academic Salary Increases” are reviewed by the General Administration, and the “Expansions and Improvements” requests are reviewed by the UNC-General Administration alongside specific University leadership. Again, Chancellors have the opportunity to relay University departmental input into the greater budgetary process. Depending on the campus budgetary model, more or less departmental input may be considered based on discussion with University Administration. Throughout the entire budgetary process the President of the University of North Carolina system confers with University Chancellors to provide the Chancellors with planning guidance and feedback on University priorities. Once again, there is an opportunity for campus feedback to permeate the budgeting process. Once University budgetary requests are submitted, the Vice President of Finance prepares a set of budgetary recommendations for the Board of Governors and its Budget and Finance Committee. A full workshop is conducted with the Board of Governors using the submitted recommendations. At the conclusion of the workshop, the Budget and Finance Committee recommend the adoption of the budget and the Board of Governors decides whether to accept the recommended budget. Should a conflict arise, the budget is revised. If no conflict exists the budget is submitted to the Governor and the General Assembly. The President of the University of North Carolina system then defends the budget during hearings with the Governor. Afterwards the budget is forwarded to the General Assembly, and a Legislative decision is made regarding the budgetary recommendations for the next fiscal year (UNC Budget Development Process 2011).

Despite the apparent tediousness of the budgetary process of the University of North Carolina System, a thorough understanding of all moving parts is integral to full comprehension. From this brief overview of the process, it is obvious that there are numerous opportunities for influence from a variety of parties, as well as numerous opportunities for campus involvement in the budgetary process. This involvement in the budgetary process often manifests as advocacy, but it is involvement nonetheless (UNC Budget Development Process 2011).

A final noteworthy issue is the lack of State appropriated funding in the University of North Carolina System budget. While the recession ended nearly a decade ago, "state funding per student attending UNC System institutions remains 14.7% below 2008 pre-recession spending" (Mitchell 2016). As enrollment and budget cuts increase, so does the cost of pursuing higher education within the University of North Carolina System. Underfunding is passed on from the University of North Carolina system budget to Universities, ultimately resting on individual departments (Mitchell 2016).

Budgetary System of Appalachian State University:

Appalachian State University operates on an incremental[8] budgeting system similar to those of the United States and North Carolina. In short, Appalachian State

[8] An incremental budget is a budget prepared using a previous period's budget or actual performance as a basis with incremental amounts added for the new budget period (Budgeting Methods – Incremental Budgeting 2017).

begins with a base budget[9] and adjusts it according to new budgetary additions or deductions to the overall budget. Additions mainly consist of tuition increases and enrollment growth funding from a greater number of students, but can also come as a result of temporary/lapse salaries.[10] Deductions primarily come from budget cuts forced upon the University by the State. Deductions also occur when units within a department are dissolved (i.e., if payroll were to be outsourced). This adjusted base budget amount becomes the department's beginning budgetary balance for the fiscal year. Departmental budgets may also include amounts for one-time funding situations. One-time funding situations include the aforementioned additions from temporary/lapse salaries but also include situations where the Provost's Office has lapse salaries that they reallocate. In these instances, the Provost may use some of their funds to increase the funding of another department. In this case, the department's overall budget is greater than what it had been to start. Departments may also request secured funding and, despite receiving affirmation that the funding will be available, the decision is ultimately open to change[11] (Smith 2017).

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[9] The base budget consists of permanent funding, which is used to pay a department's operating expenses (i.e., payroll-related items, supplies, travel, maintenance, marketing, equipment).

[10] Temporary/Lapse salaries come as a result of a vacant position. In these instances, departments can redirect the funds from this position to hire a new temporary employee or purchase a needed item (i.e., a computer). It should be noted that these instances do not increase the aggregate budgetary amount of a department.

[11] The budget is a plan and for that reason is subject to change. There are several instances when the planned budgetary allocations may change. An example of this would be in 2015 when Appalachian State University expected its enrollment growth funding to increase a great deal due to new growth in Distance Education. When the program did not grow, a cut of more than two million dollars was instated. Other instances that may cause budgetary changes include State and Federal restrictions that could result in spending freezes.

The permanent fund procedure at Appalachian State allows for adjustment based on administrative evaluation within the budgeting process. The means by which a department's permanent funds are collected at the end of the fiscal year and reallocated depend upon the Division to which the department reports. The five budgetary divisions at Appalachian State University are Academic Affairs, Business Affairs, Chancellor's Division, Student Development, and University Advancement. Every division at Appalachian State University is permitted to keep their base budget from one fiscal year to the next, except for Academic Affairs. For those departments that keep their base budget, no funding is deducted from their ending departmental budgetary balances. Ending balances factor into the departmental beginning budgetary balances (Smith 2017).

Serving the students and faculty of Appalachian State University most directly, the Academic Affairs division is the only division whose ending budgetary balance of permanent funds does not factor into the next year's beginning budgetary balance. Instead, the Academic Affairs departments roll their ending balances to the Provost's department. It is the Provost who then decides how the allocation of these permanent funds will proceed. For example: if *department* 1 had $10,000 left at the end of the fiscal year and *department* 2 had $4,000 left at the end of the fiscal year, the aggregate amount of $14,000 would roll to the Provost's department. In other instances, funds may not be taken out of an Academic Affairs division department (i.e., if a department ordered furniture but it was damaged and not delivered in time). To determine how Academic Affairs department funds collected at the end of the fiscal year are reallocated, the Provost addresses reallocations on a case-by-case basis. The Provost meets with the head of each department and gathers a full understanding of their departmental budgetary needs before moving forward with reallocating funds. It is under the jurisdiction of the Provost to decide if and how these funds will be split between the departments in the coming fiscal year. It should be noted that budgetary funds at the end of the fiscal year are not arbitrarily collected but rather are collected to ensure allocations are fair and just. The Academic Affairs division keeps a tighter grip on ending fund balances because the division has a relatively small amount of non-payroll funds; the University wants to be sure reallocations of funds are correct (Smith 2017).

The campus goes about generating new funds to allocate to a division in two ways - increasing student enrollment or implementing Campus Initiated Tuition Increases (CITI). Enrollment Growth funds are configured using a 12-cell matrix created by the University of North Carolina - General Administration. The matrix accommodates the instructional level (undergrad, masters, or doctoral), instructional category (field of study), and student credit hours. The matrix calculates a factor that indicates how many new faculty members should be hired. With that information, the state considers students that are “in-state” or “out-of-state” to decide on the amount of appropriation the campus will receive to fund added expenditures. Alongside funds allocated by the state, students pay tuition and fees. The campus conducts the tuition and fees process to determine the quantities of tuition and fees delegated to each student. During this process, different departments can voice their concerns regarding increased funding. Ultimately, it is upper-level administration and the Board of Trustees of the University that determine increases to tuition and fees. Of the funds received from enrollment growth, Academic Affairs receives the largest allocation. This fiscal year, the division controlled 79% of the General Fund budget. The other four divisions split the final allocation amount amongst themselves. If departments outside of Academic Affairs need funding from the University (excluding other outside funding sources) they have two options - they can either contact the Chancellor and the Chief Financial Officer to request a portion of the 32% to be split amongst the four divisions, or they can contact the Academic Affairs division for monetary assistance or for use of their non-state funds (Smith 2017).

The budgeting process at Appalachian State University utilizes a great deal of departmental involvement. The primary issue is that, as previously mentioned, there exists the opportunity for some administrative jurisdiction over the budget. In this, we can see that departments may be more or less satisfied with the overall budgeting process. This is where the necessity to evaluate user input presents itself. Analyzing how satisfied departments are with the overall budgeting process will provide a metric with which we can evaluate the effectiveness of Appalachian State University's budget and the greater budgeting process.

Similarities of Predecessor Budget Models:

The aforementioned budgetary models from which Appalachian State University receives funding, the United States of America, North Carolina, and the University of North Carolina System models, build on top of one another in a pyramid-fashion, influencing each other along the way. There are three key roles throughout each budgetary model: The general administrator of the budgeting process, the sectors of the general institution responsible for prioritizing their respective needs, and the approving entities of the budget. With this, the Appalachian State University budget model is fashioned and the means to evaluate departmental user satisfaction are provided. The key roles of each level of the budgetary models are summarized below.

Budgetary Responsibility: The President of the United States, the Governor of North Carolina, the President of the University of North Carolina System, and the Chancellor of Appalachian State each fulfill the role of administrator for their specific budgeting process. With them lies the duty of working to put together a budget that represents the needs of their respective institutions. Each administrative role passes certain pressures onto the next. This pressure trickles down to the departmental level where department heads making actual use of allocated funds must decide whether or not the allocations and overall process suffice for the needs of their department.

Budgetary Prioritization: From the “top” down, the President of the United States of America, the Governor of North Carolina, the President of the University of North Carolina System, and the Chancellor of Appalachian State University each have the ability to pass their own judgment on the prioritization of funding for various programs. Here, administrative judgment can impact the budgetary model, making it more or less efficient. One way to tell if prioritization of entity needs truly is representative is through the gathering of feedback from those impacted. Overall, the priorities of the predecessor budgetary models find their way down to the University department level. Here the priorities can alienate departments and leave them unsatisfied with the budgetary process. In this case, the budgetary model would prove to be ineffective.

The Approval Process: Another key role in the prior budgetary models of Appalachian State University and present in Appalachian State University’s budgetary model is the approval process. The House of Representatives and the Senate of the United States, the General Assembly of North Carolina, the Board of Governors of the University of North Carolina System, and the Chancellor of Appalachian State University are responsible for approving the proposed budgets for their respective entities. It is the responsibility of these groups to ensure the best interests of their institutions. During these approval processes it is the Labor, Health, and Human Services committee of the US appropriations process, the North Carolina Office of State Budget and Management, the Chancellors of the University of North Carolina System, and the departmental heads of Appalachian State University respectively who are entrusted with relaying the needs of their affiliates up the chain. Again, the influence of administrative preference has the ability to creep into the budgeting process, disregarding user input. This failure to consider departmental feedback would foster an ineffective budgetary process.

The similarities between the budgeting processes are very apparent and each subsequent budgeting model is influenced by the prior the budgetary process. As a result, structure and priorities are handed down through the overarching budgeting system and ultimately affect how satisfied department heads are with the budgeting process as a whole. Within this thesis I evaluate and use departmental satisfaction as a metric for budgetary effectiveness.

METHODS

There are many metrics that can be used to evaluate budgetary model performance. In this thesis, the researcher used departmental satisfaction to analyze and evaluate the effectiveness of Appalachian State University's budgetary model. As described in the following sections, the researcher conducted a survey of a sample of Appalachian State University's department chairpersons to gather data on the effect of Appalachian State University's budgetary system on user satisfaction.

Data Collection

The population from which the sample was obtained included all departments within Appalachian State University that receive a University allocation for their budget. There were 135 departments that met this criterion. From this population, a random number generator was used to randomly select 90 departments to survey. Departments were randomly selected to provide a random distribution of departments across the campus in hopes of eliminating departmental bias and to normalize the responses gathered through survey.

With the help of Ken Smith, the Budget Director of Appalachian State University, the researcher gathered the emails of the budget administrators for each department selected. In cases where the correct email could not be located, a general department email was used. In these instances, specific instructions were given indicating that the completion of the survey was to be made by the departmental head in charge of that department's allocated budget. The survey instrument, included in full in Appendix A, was administered anonymously through Google Forms. The survey was sent via email and responses were collected automatically through Google Forms. One week after the initial sending of the survey, a follow-up email with a survey link was resent. Data was gathered over a span of two weeks. The survey was administered anonymously to allow respondents the freedom to address their true concerns.

Survey Analysis

The first question asked in the survey was to gauge the departmental chairperson's understanding of the budgetary process. This question was asked to ensure that those responding were informed enough to speak on the issues within the survey itself. The remaining nine questions of the survey fell into three general themes: satisfaction with received funding, potential improvements to meet departmental budgetary needs, and effects of the current budgetary system.

<u>Funding Amount:</u> To evaluate budget satisfaction, the researcher inquires about departmental satisfaction with budgetary allocations. Evaluating this presents a surface level view of how departments feel the current budgetary model addresses their most basic need: funding. The responses to this question provide the researcher with a basic context for departmental satisfaction.

<u>Meeting Departmental Needs:</u> The researcher first inquired if departments felt as if they had adequate funding. The researcher anticipated the majority of the responses to be no, therefore the researcher further asked what goals they could achieve with additional funding. Specifically the researcher inquired about short-term goals and long-term goals.

The researcher felt asking these questions would represent a more legitimate overview of budgetary satisfaction. Lastly, to gather an even more specific response, the researcher gave departments the opportunity to respond freely regarding what they felt would help to achieve all of their budgetary needs. The data collected through the questions and free responses helped me ascertain departmental satisfaction with the budgetary model.

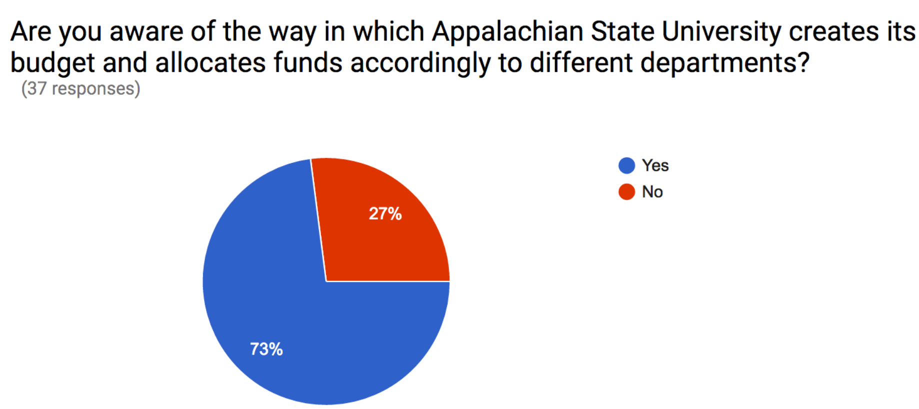
Budgetary Effects: The last four questions of the survey deal with specific effects of the current budgetary system as seen by departments. The researcher asked these to pinpoint explanations for the statistical data collected. The researcher used this feedback to elaborate responses gathered in the other sections and help assess the extent of user satisfaction with the budgetary process.

DATA ANALYSIS

Below, are the results of the survey data collected over a two-week period. Respondents to the survey were faculty and staff members of Appalachian State University. The survey was emailed to 90 of 135 campus departments under the ASU incremental budgeting model. Out of 90 selected to receive the survey, 38 responded yielding a 42.2% response rate and 28.1% response overall.

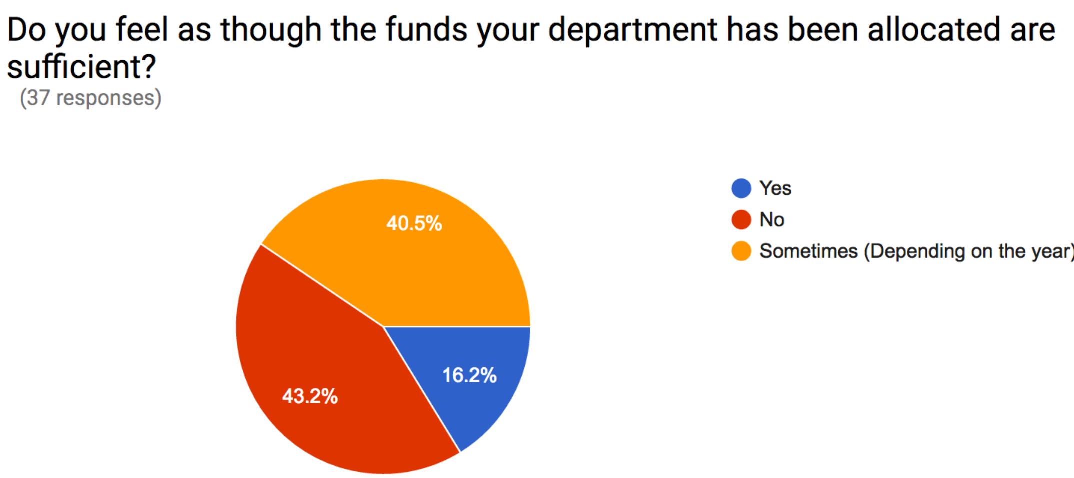
The first survey question responses, as shown in Figure 1 below, quantify the portion of departmental heads that are aware of the progression by which Appalachian State creates its budget and allocates funding. Out of the sample population, the researcher found that 73% of those in charge of their department's budget understand Appalachian State's budgeting process. While this proportion seems high, ideally 100% of those utilizing budgetary funds are aware of the way Appalachian State University conducts the budgeting process.

Figure 1



The second survey question analyzed, examines the perceived funding adequacy of the department. As shown in Figure 2 below, out of those who responded, only 16.2% felt as though funding they received was sufficient. Others felt as though funds were insufficient- or only sufficient sometimes. As expected, this metric shows discontent with the amount of funding Appalachian State University departments receive.

Figure 2

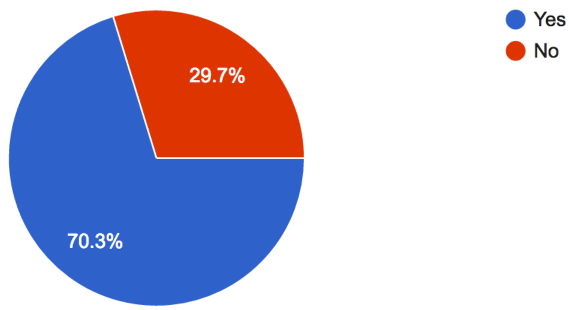


The researcher also gathered data on the potential longevity of dissatisfaction with Appalachian State University's budgetary model. To assess the longevity, the researcher asked three questions, seen in the following Figure 3, regarding departmental budget needs in the future and how an increased budget would help address the departmental goals. These responses provide insight into the extent we can attribute Appalachian State University budgetary dissatisfaction to short-term needs, long-term needs, or other needs. From the data collected, the budgetary model at Appalachian State University appears suited for neither short-term nor long-term needs, as it is ineffective at addressing departmental concerns in either respect.

Figure 3

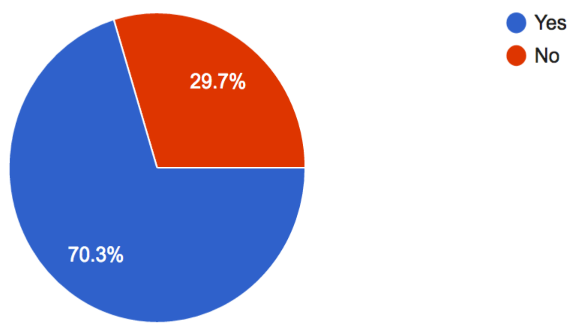
Do you feel that a significant increase in your department's allocated budget for the next fiscal year is needed? (An increase of 15% or more)

(37 responses)



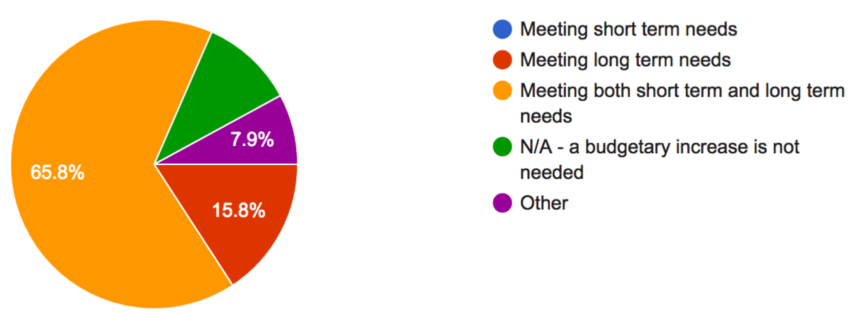
Do you feel that a significant increase in your department's budget for greater than one fiscal year is needed? (An increase of 15% or more)

(37 responses)



In what way would an increase in your department's budget help to address your department's needs?

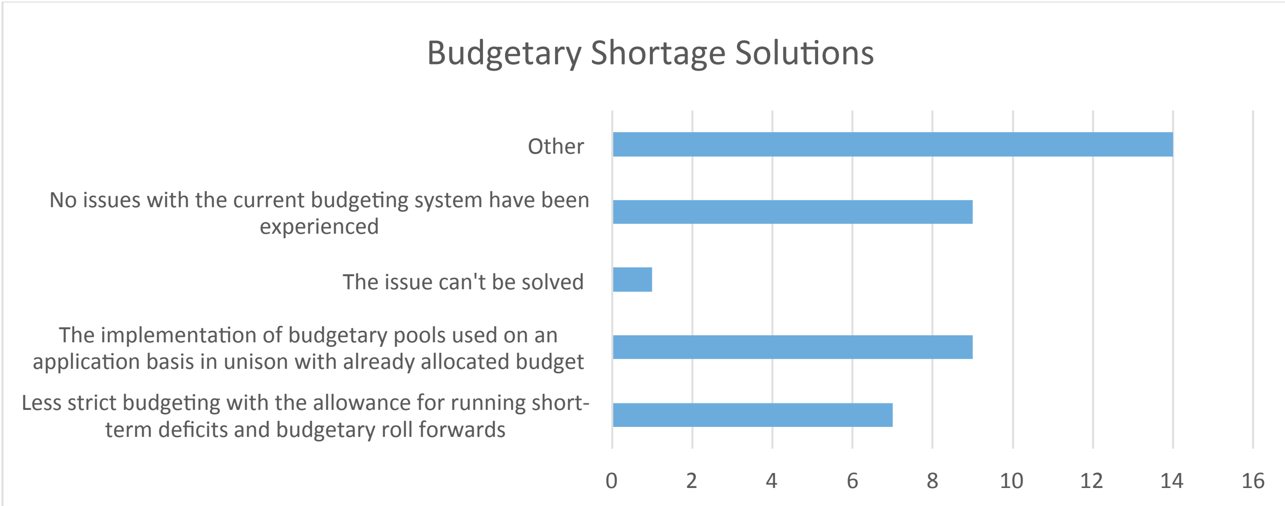
(38 responses)



The researcher also provided respondents the opportunity to voice their specific concerns regarding ways in which the budgetary process could be improved by asking an open-ended question of how the respondent would like to see departmental budgetary needs be met. These responses cited specific failures of the budgeting process at Appalachian State and referenced potential improvements that might foster a better budgeting system. Examples of received responses are shown below:

- "Appalachian wastes a tremendous amount of money on administrators"
- "Stop providing across the board increases in operating funds and provide more funding to traditionally underfunded departments"
- "Because of uncertainty in the operating budget, spending during fall tends to have to be cautious and conservative while there is then often a spending spree towards the end of spring"
- "better planning" and "greater allocations"
- "It would be great to have reasoning as to why we are not allocated what I have requested. I send in my requests, never hear back, and never get more funds. I also am unsure who to follow up with"

The researcher further gathered information from the respondents on what specific changes could be implemented within Appalachian State University's budgetary model to yield higher user satisfaction. Respondents were provided several options for how budgeting shortages could be resolved. The options presented were pulled from other budgetary models. Overall however, most responders believed in other unlisted solutions to budgetary issues indicating a greater need for user input and communication with administration. Results can be seen in the following chart.



To gain better insight into the effects of the budgeting system on the individual departments, the researcher provided respondents with an open-ended question asking if they had noticed any impacts as a result of the budgeting system. There was a general mix of opinions, but included below are a few of the negative responses that cite specific issues found with the budgeting system. Issues specified within the responses were articulated within the literature review portion of this thesis. The rigidity of the budgetary model, potential for administrative bias in the allocation of funds, as well as superfluous spending at the end of the year were all potential issues with the budgetary process that have come to fruition at Appalachian State University.

- "There is a history of deans providing more funds to the departments with which they are affiliated. This has occurred over many decades and has resulted in the current inequities"
- "Limited flexibility to meet shifting needs"
- "Increased spending at the end of fiscal year to spend down balances that are not driven by need. Inability to save for future expenditures that cross fiscal year boundaries"
- "The current budget model discourages interdisciplinary teaching: each department is competing for student credit hours—the basis for some large funding decisions"

The final two questions evaluated spending behavior due to budget issues. The first question analyzes how the budgetary model affects spending sustainability. Specifically, the researcher analyzed whether the budget system has forced departments to spend more or less money than what is optimal. The results are provided in Figure 4. Two thirds of the responders feel as though their spending habits have been unfavorable, indicating budgetary ineffectiveness. The second question evaluating spending behavior examines the departmental actions taken to address budgetary ineffectiveness. The results, as seen in Figure 5, indicate that only 2.7% of respondents believe that they have always had enough funding. Otherwise, it is evident that the largely ineffective budgetary model in place at Appalachian State University has led departments to look to upper level administration and even cut programs.

Figure 4

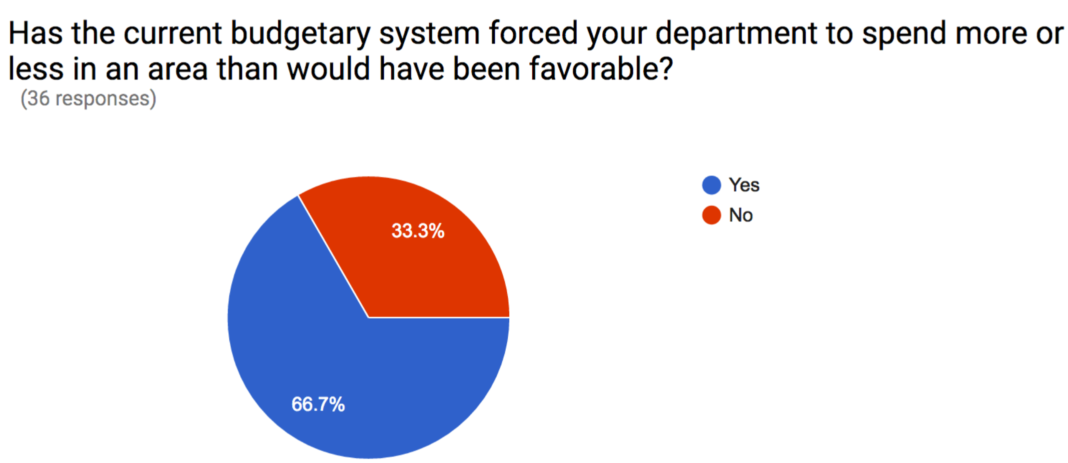
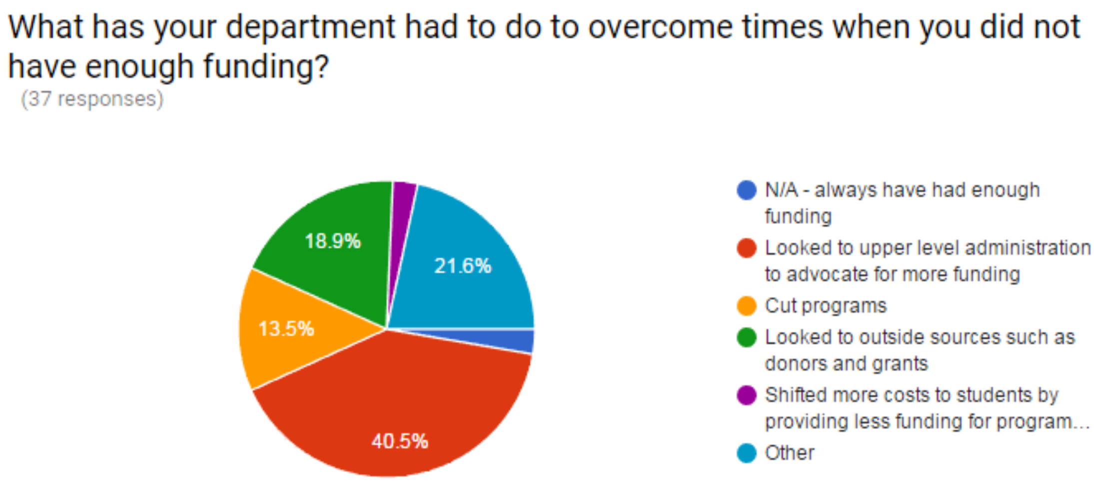


Figure 5


What has your department had to do to overcome times when you did not have enough funding?
(37 responses)
18.9%
21.6%
13.5%
40.5%
N/A - always have had enough funding
Looked to upper level administration to advocate for more funding
Cut programs
Looked to outside sources such as donors and grants
Shifted more costs to students by providing less funding for program...
Other

CONCLUSION

In this thesis, the researcher summarizes the budgetary process for Appalachian State University and the predecessor budgets that feed into Appalachian State University's budgeting model, and further evaluate the effectiveness of Appalachian State University's budgeting process. After gathering data on user satisfaction from budgets across the University the researcher found multiple trends indicating dissatisfaction with the budgeting system at Appalachian State University. A significant proportion of departments across the campus felt as though Appalachian State University was failing at providing the means to meet both short and long-term goals.

While the data points may lead readers to believe that the root issue here is Appalachian State University's budgetary model, it is crucial that all variables be evaluated. When reviewing the predecessor budgetary models, several lurking variables became apparent. These variables could affect general departmental satisfaction and could have caused non-representative data within the data portion of this thesis. Below is a non-exhaustive list of the lurking variables noted:

- Departmental Insatiability: The general trend in society for individuals to not be satisfied with what they are given culminated at the university department level.
- Institutional Cuts: Budgetary cuts and spending freezes from parental entities that ripple through the university and result in budgetary shortages at the departmental level (i.e. State cuts to public education).
- Parental Entity Prioritization: Prioritization of programs and channeling of funding passed on from one entity to the next, precipitating in differences in funding for departments across the university.

In closing, outside of other variables, the data the researcher collected implies that the budgetary model is ineffective. The model in use at Appalachian State seems to do a poor job at evaluating user satisfaction and as such operates on a model that is not as beneficial to users as possible. Future considerations for Appalachian State University would be to analyze the ways in which the University can consider departmental feedback more to integrate into the budgetary process. In doing so, the campus could create a better budgetary model that considers user input more, satisfying departmental needs and fostering a more effective budgetary model. For the researcher, future topics to be considered would include the evaluation of other budgetary models and their value to Appalachian State University, a more detailed analysis of the budgetary system contained with the Academic Affairs division, and differences between trends in user satisfaction between different administrations.

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APPENDIX A

Survey:

Budgetary Effectiveness at Appalachian State University

CONSENT FORM

You are invited to participate in a research study aiming to evaluate the satisfaction and effectiveness of Appalachian State University's budgetary model. The survey below is completely anonymous and will be used to evaluate a variety of departments across campus. Appalachian State University's Institutional Review Board has determined this study to be exempt from IRB oversight. If you would, please answer the following questions to the best of your ability. Completing the survey should take no more than 15 minutes. As the survey is anonymous, participants need not worry about potential negative consequences. The data is being collected for the completion of a senior thesis and will help in evaluating the campus budgeting system. Participation is voluntary and there is no penalty or loss of benefits if you refuse to participate or decide to discontinue participation.

Please feel free to contact me or my advisor should you have any questions or concerns!

Nicholas Gilliam: gilliamnt@appstate.edu
Pennie Bagley: bagleypl@appstate.edu

1. Are you aware of the way in which Appalachian State University creates its budget and allocates funds accordingly to different departments?
   Yes/No

2. Do you feel as though the funds your department has been allocated are sufficient?
   Yes/No/Sometimes (Depending on the year)

3. Do you feel that a significant increase in your department's allocated budget for the next fiscal year is needed? (An increase of 15% or more)
   Yes/No

4. Do you feel that a significant increase in your department's budget for greater than one fiscal year is needed? (An increase of 15% or more)
   Yes/No

5. In what way would an increase in your department's budget help to address your department's needs?
   (Multiple choice)
   Meeting short term needs/ Meeting long term needs/ Meeting both short and long term needs/ N/A – a budgetary increase is not need

6. How would you like to see your departments budgetary needs be met? (Examples: better planning, cutting of programs, greater allocations, etc.)
   (Free Response)

7. If you have experienced budgetary shortages in your department, how do you believe they can be solved?
   (Select all that apply)
   -Less strict budgeting with the allowance for running short-term deficits and budgetary roll forwards
   -The implementation of budgetary pools used on an application basis in unison with already allocated budgets to provide additional funding
   -The issue can't be solved
   -No issues with the current budgeting system have been experienced

8. Have you noticed any specific effects of the budgeting system? (Positive or negative effects)
   (Free Response)

9. Has the current budgetary system forced your department to spend more or less in an area than would have been favorable?
   Yes/No

10. What has your department had to do to overcome times when you did not have enough funding?
    (Multiple choice)
    -N/A - always have had enough funding
    -Looked to upper level administration to advocate for more funding
    -Cut programs
    -Looked to outside sources such as donors and grants
    -Shifted more costs to students by providing less funding for programs, materials, and etc.