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A Historical Review and Financial Analysis of Higher Education
Funding in Tennessee

A dissertation
presented to
the faculty of the Department of Educational Leadership and Policy Analysis
East Tennessee State University

In partial fulfillment
of the requirements for the degree
Doctor of Education in Higher Education Administration

by
Claire Stinson
December 2003

Dr. Terrence Tollefson, Chair
Dr. Louise MacKay
Dr. Martha Pointer
Dr. Russell West

Keywords: Higher Education Funding, Funding Formula, Performance Funding,
Funding History, Finance, Higher Education History, Tennessee Higher Education History

ABSTRACT

A Historical Review and Financial Analysis of Higher Education

Funding in Tennessee

by

Claire Stinson

This was a study of the development of an objective funding method for public higher education institutions in Tennessee. The review covers the history of higher education funding from the early 1800s through the beginning of the twenty-first century with emphasis on the early 1960s through the year 2000. The study describes and analyzes the efforts made in Tennessee to provide adequate and equitable funding to public higher education institutions.

Minutes of meetings of the Tennessee Higher Education Commission, reports on studies commissioned by state officials, accountability reports prepared by the Tennessee Higher Education Commission, the Tennessee Board of Regents, and the University of Tennessee, and official budget-related documents and annual financial reports of the colleges and universities were examined for this study. Fifteen personal interviews were conducted with individuals identified on the basis of their longevity in Tennessee higher education and/or the timeframe of their service and because they represented a cross-section of state officials, officials of governing boards, and university and community college officials. A financial analysis of state appropriations, revenues, and expenditures is included for 1993 through 2002.

This study found that Tennessee's formula contains most of the elements that have been brought forward in the literature over the years as indications of a *good* formula, and it addresses several of the disadvantages of formula funding. The funding formula has moved Tennessee higher education institutions closer to "equitable and fair" funding among the institutions since its application in the early 1970s. A provision for performance funding and implementation of Centers of Excellence and Centers of Emphasis programs addressed quality issues relative to funding. However, use of a formula has not solved the problem of insufficient funding. The complexity of college and university financial reporting has contributed to misunderstandings and distrust between higher education and state officials.

This study combines lessons from the past with recommendations for future modifications to the funding formula used by Tennessee's higher education institutions.

DEDICATION

To my daughter Heather who spent the first 20 years of her life watching me struggle to balance family life, work, and education. Thank you, Heather, for all of your encouragement and for being my cheering section as I brought this study to conclusion.

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CONTENTS

| | Page |
|-------------------------------------------------------|------|
| ABSTRACT | 2 |
| DEDICATION | 3 |
| ACKNOWLEDGMENTS | 4 |
| LIST OF TABLES | 10 |
| Chapter | |
| 1. INTRODUCTION | 11 |
| Statement of the Problem..... | 14 |
| Research Questions..... | 16 |
| Significance of the Study | 17 |
| Limitations and Delimitations of the Study | 19 |
| Definitions..... | 20 |
| Overview..... | 21 |
| 2. REVIEW OF RELATED LITERATURE | 23 |
| Introduction..... | 23 |
| Defining Formula Funding | 23 |
| Advantages and Disadvantages of Formula Funding | 26 |
| Evolution of Funding Formulas | 29 |
| Retrenchment, Accountability, and Funding Equity..... | 30 |

| | |
|-------------------------------------------------------------------------------------------|----|
| Concerns for Quality and Funding Stability | 32 |
| Quality, Stability, and Reform | 35 |
| Long-Term Funding Trends..... | 36 |
| Performance Funding and Performance Budgeting..... | 41 |
| Summary | 48 |
| 3. METHODOLOGY | 52 |
| Research Design..... | 52 |
| Data Collection | 52 |
| Data Analysis..... | 58 |
| Verification | 60 |
| 4. HISTORICAL REVIEW AND FINANCIAL ANALYSIS OF HIGHER EDUCATION | |
| FUNDING IN TENNESSEE..... | 63 |
| Introduction..... | 63 |
| Support for Higher Education – The Early Years..... | 64 |
| University of Nashville..... | 65 |
| State Support of Higher Education | 67 |
| A Growing Industry – State Support in the First Half of the 20 th Century..... | 69 |
| 1924 Bureau of Education Survey | 72 |
| 1957 Pierce-Albright Study | 74 |
| Development of a Formula for Funding Higher Education..... | 75 |
| Political Aspects of Funding Leading to a Formula | 75 |
| Creation of the THEC | 79 |
| Creation of the Tennessee Board of Regents..... | 81 |

| | |
|----------------------------------------------------------------------------------------------|-----|
| Influence of Individuals | 82 |
| Commissioner J. Howard Warf..... | 82 |
| Dr. Andrew David Holt..... | 83 |
| State Representative John Bragg | 84 |
| Dr. John Folger | 86 |
| Dr. Brenda Albright | 86 |
| Designing the Formula..... | 87 |
| Applying the Formula | 89 |
| Institutions’ Response..... | 93 |
| Government’s Involvement – Executive Branch..... | 94 |
| The Formula Concept | 94 |
| 1979-84 Master Plan Formula Goals | 95 |
| Modifications to the Formula..... | 96 |
| Modifications – The Expenditure Side | 98 |
| Revenue Deductions | 103 |
| Major Modifications – FY1980-81 | 104 |
| Marginal Costs, SREB Adjustment, and Enrollment Range Adjustment to Promote Quality | 105 |
| Incorporating Peer Institutions into the Formula | 110 |
| National Peer Groups – 1985-86 Major Modification..... | 112 |
| 1994-95 Formula Modification and Move to SREB Peers..... | 115 |
| The Process of Selecting Peer Institutions..... | 119 |
| Funding Quality – the Golden ‘80s..... | 122 |

| | |
|------------------------------------------------------------------------|-----|
| Full-Formula Funding..... | 124 |
| Performance Funding..... | 124 |
| Chairs of Excellence | 128 |
| Center of Excellence and Centers of Emphasis | 129 |
| Financial Analyses – 1990s and Beyond | 130 |
| Looking to the Future..... | 147 |
| Changing State Structures to Improve Funding..... | 147 |
| State Revenue Structure | 147 |
| Higher Education Governance Structure | 148 |
| Leadership, Image, and Trust..... | 150 |
| Changes to Policies and Procedures | 153 |
| Does the Formula Still Work? | 153 |
| Accountability and Performance Incentives | 155 |
| Economic Development..... | 156 |
| Tuition Policies and Other Income Sources..... | 158 |
| Lottery..... | 159 |
| 5. ANALYSES, CONCLUSIONS, AND RECOMMENDATIONS | 161 |
| Analyses..... | 161 |
| Early History and Problems Presented by Funding | 161 |
| Formula Funding..... | 162 |
| Changes to the Formula and the Introduction of Peer Institutions | 163 |
| Financial Analyses..... | 164 |
| Changes to Structures, Policies, and Procedures | 165 |

| | |
|-------------------------------------------------------------|-----|
| Conclusions..... | 167 |
| Recommendations..... | 172 |
| Recommendations for Increased Financial Commitment | 172 |
| Recommendations for Changes to Policies and Procedures..... | 173 |
| Recommendations for Changes to Governing Structure | 174 |
| Recommendations for Changes to Quality Incentives..... | 174 |
| Recommendations for Further Study | 175 |
| REFERENCES | 177 |
| APPENDICES..... | 183 |
| Appendix A: Preliminary Interview Guide..... | 183 |
| Appendix B: Informed Consent Document | 185 |
| Appendix C: Chronology..... | 187 |
| VITA | 190 |

LIST OF TABLES

| Table | Page |
|-----------------------------------------------------------------------------------------------|------|
| 1. States with Performance Funding | 46 |
| 2. States with Performance Budgeting | 48 |
| 3. THEC Recommendation as a Percentage of Actual State Appropriation..... | 132 |
| 4. THEC Recommendations for TBR Compared to Actual State Appropriations for TBR..... | 134 |
| 5. THEC Recommendations for TBR Compared to Governors’ Recommendations for TBR..... | 135 |
| 6. Actual State Appropriations for TBR Compared to Governors’ Recommendations for TBR..... | 137 |
| 7. THEC Recommendations for UT Compared to Actual State Appropriations for UT | 139 |
| 8. THEC Recommendations for UT Compared to Governors’ Recommendations for UT..... | 140 |
| 9. Actual State Appropriations for UT Compared to Governors’ Recommendations for UT..... | 141 |
| 10. Functional Areas as a Percentage of Total Expenditures for TBR..... | 142 |
| 11. Functional Areas as a Percentage of Total Expenditures for UT..... | 143 |
| 12. 10-Year Analysis of Unrestricted Revenues by Percentage for TBR..... | 144 |
| 13. 10-Year Analysis of Unrestricted Revenues by Percentage for UT | 146 |

CHAPTER 1

INTRODUCTION

In his book, *Higher Education in Tennessee*, Merriam (1893) asked the question, “If the State has done little for higher education, whence have come the funds for the maintenance of colleges and universities?” (p.17). His answer, “...chiefly from private purses through the various Christian denominations” (p.17). Merriam observed that probably more than half of the wealth invested in Tennessee colleges had come from other states. Vanderbilt University supplied a prime example with its large endowments from the Southern Methodists.

According to Merriam, by 1893 there were only three prominent colleges in the history of Tennessee that were not denominational: the University of Tennessee, West Tennessee College, and the University of Nashville. Funding had been a major problem for these nonsectarian universities. Sources of funds included proceeds from the sale of land acquired through land grants, private donations, student tuition, and monies borrowed on the security of individual trustees. Other creative schemes for raising money had been devised. Merriam (1893) noted that in its early days as Davidson Academy, the University of Nashville had operated a ferry as “...a source of income and of much annoyance” (p.21). In 1826, the University of Nashville requested, and was granted by the state, permission to raise \$200,000 by means of a lottery.

Dependent upon student tuition and private donations for a major portion of their funding, the nonsectarian universities faced competition from the numerous sectarian and local colleges that had sprung up across the state. According to Merriam (1893), competition from the “pseudo colleges” (p.18) forced real colleges to lower their conditions for admissions and retain

preparatory departments in order to retain students. This occurred to the detriment of scholarship. Merriam (1893) stated,

Of the making of colleges there is no end. The curse of higher education in Tennessee is the multiplicity of so-called “colleges” and “universities.” Nearly every cross-roads hamlet has, not its academy or its high school, but its “college.” Many of the schools that style themselves colleges do not possess the ghost of a college equipment, either material or intellectual. Aspiring to do what they can not do at all they do poorly what they might do well. Their pupils, deluded into the belief that they have “been to college,” know of nothing better and hence aim at nothing better. (p.18)

Merriam (1893) stated that “...one or two colleges ...had the courage to abolish their preparatory departments in the face of temporary loss of students” (p.18). Merriam (1893) did not name the colleges.

Loss of students was not the only problem the Tennessee colleges and universities faced because of insufficient funds. On September 14, 1850, the trustees of the University of Nashville suspended the operations of the university for a limited time. They established January 1, 1852, “...as a probable date of resumption” (Merriam, 1893, p.41). Among the reasons given was income insufficient to meet the expenses of the university. Additionally, faculty resignations and the death of other faculty members had left the University with insufficient faculty to teach classes.

The year was 1999. The document was *A Report of the Governor’s Council on Excellence in Higher Education* (Governor’s Council on Higher Education, 1999). Governor Don Sundquist had charged the Council with developing “...a practical plan for elevating the state’s public colleges and universities into the nation’s highest ranks” (Governor’s Council on Higher Education, p.3). The challenge was monumental: citizens were undereducated and underskilled, only one third of minority students entering college graduated, scholarships were

needed for low-income students, none of Tennessee's colleges ranked among the nation's top 50 public and private research universities, and faculty salaries were low.

The current system of higher education in Tennessee is large, serving approximately 220,000 students; it is complex, having three major governing agencies; and it is costly, incurring annual expenditures of approximately \$2 billion. The Tennessee Board of Regents (TBR) has responsibility for six universities, 13 community colleges, and 26 postsecondary technology training centers. The University of Tennessee operates three undergraduate campuses plus graduate and professional preparation programs and specialized research institutes. The Tennessee Higher Education Commission (THEC) has the responsibility for coordinating activities of both the TBR and the University of Tennessee (UT) and representing these institutions to state government.

The Governor's Council on Excellence in Higher Education identified the governing structure as a major "impediment to excellence" (Governor's Council on Higher Education, 1999, p. 15). According to the Council, "It privileges geographic equity at the expense of focused excellence" (Governor's Council on Higher Education, p. 15). *Mission creep* had blurred the differences among the many institutions and between the two systems, and THEC, the coordinating board, "[was] insufficiently empowered statutorily and operationally" (Governor's Council on Higher Education, p. 16) to allocate resources among the systems, although it had been delegated this responsibility. The Council recognized that all blame could not be placed at the doorsteps of the institutions and their governing boards. According to the Council, "Tennessee has not made a sufficient financial commitment to public higher education" (Governor's Council on Higher Education, p.17). State appropriations per student were less in 1997-98 than in 1990-91 when measured in real dollars; and, when measured in purchasing

power, state appropriations to higher education moved backwards between 1990-91 and 1997-98.

Statement of the Problem

This study investigated the history of funding for colleges and universities in Tennessee. The study investigated factors within the state that have precipitated each revision as well as how the economic environment and national trends have impacted funding revisions. The study reviewed what had worked and what had not and why not. The funding formula for higher education in Tennessee has not had a major review since 1994. A funding component to reward performance was added to the budget formula in 1979 and has been reviewed at five-year intervals. Even with regular reviews, Commissioner C. Warren Neel asserted in his February 27, 2001, memo to the state legislature's Select Oversight Committee on Education that the performance funding measures were "too mechanical and too bureaucratic" ... "nothing more to the rank and file of higher education than a series of 'hoops' to respond to the state."

Commissioner Neel noted, "The report, *Higher Education Performance Measures*, is very revealing. The lack of integrated planning with budgeting coupled with the assertion that performance funding is not tied to the achievement of goals are striking." Furthermore, Commissioner Neel asserted, "Taxpayers deserve to know how well their taxes are spent." THEC has been requested to "revisit performance funding" to a) develop outcome measures as opposed to rewarding past efforts and b) establish rewards for achievements, beginning with the chief executive officers' compensation, thus making them accountable first.

In April 2002, the executive director of the THEC requested that the president of the University of Tennessee and the chancellor of the TBR identify representatives from each system to serve on a funding formula advisory committee. This committee met for the first time in July

2002. Minutes of that meeting reveal the following problems that were perceived with the present formula (Minutes, College and university formula review committee, July 30, 2002):

1. The current formula is too complex and difficult to be easily understood;
2. Legislators must be better informed and understand that the funding formula is estimating the total educational need but not defining an individual institution's budget. Institutional flexibility to budget and spend as needed to support the mission of the institution must be preserved;
3. The funding formula requirements are currently underfunded by \$111 million;
4. The Governmental Accounting Standards Board (GASB) is requiring changes in financial reporting and the ramifications of these changes must be reviewed in terms of the formula;
5. Higher education must move toward funding that provides incentives for improved student retention, graduation rates, and other performance and accountability standards and away from enrollment-driven funding;
6. Higher education must decide how to participate in the state's performance-based budgeting scheduled for implementation in fiscal year 2004; and
7. "Hold harmless" agreements in the past have distorted the distribution of available funds.

The focus of this study was to review and interpret the history of Tennessee higher education funding. Failures as well as successes are discussed because both are informative in designing a new method of higher education funding.

Research Questions

The following questions served as a guide for this research:

Question 1. How were Tennessee colleges and universities funded during their early history, and what problems did funding present for the institutions?

Question 2. When did Tennessee implement a formula-funding mechanism, and what were the reasons behind this implementation?

Question 3. What changes have occurred in the funding formula, and what was the driving force behind each change?

Question 4. What were the reasons for using data from “peer institutions,” and how were such peer institutions initially selected? What changes have occurred in the selection of peer institutions and why were the change(s) considered necessary? What additional changes are necessary?

Question 5. How do formula-identified resource requirements compare with recommendations made by the state executive branch and the actual funds appropriated by the legislative branch over the past 10 years?

Question 6. Have functional expenditure patterns varied over the past 10 years as funding has continued to slide to a lesser percentage of the total resources available to the institutions?

Question 7. Have revenue sources of the institutions varied over the past 10 years and, if so, in what ways?

Question 8. What changes should be made in state structures, policies, and procedures to improve the way the funding requirements for Tennessee’s state colleges and universities are identified?

Significance of the Study

From 1977 to 1997 the average price of attending college increased by 304% in the United States. Adjusting this for inflation, the real increase was 49%, compared with a median increase in family income of only 10% over the same time period (Pell grants... Nov. 27, 1998). This increase in tuition costs reflects the fact that state-supported institutions have been shifting costs to students to make up for the reduced state funding that occurred during the period of fiscal constraints. As students are forced to bear a larger portion of the cost of their education, they have begun to question how well the money colleges and universities do receive is being spent (Ruppert, 1995). In response to these complaints, many states have implemented performance budgeting and/or performance funding.

During the 1980s, colleges and universities were encouraged to design and implement their own programs for assessing institutional effectiveness (Ruppert, 1995). This assessment was mostly voluntary and internally focused, with little or no communication of results to external parties. There was no attempt to compare institutions, because it was believed that no single assessment model would fit every institution; and such a comparison would, therefore, be inappropriate (Neal, 1995). However, the tone changed in the early 1990s. The public policy makers' focus changed to emphasize productivity and efficiency, and earlier voluntary assessment initiatives were replaced with state-mandated systems for institutional reporting (Neal). By 1994, 9 states had adopted and 10 were considering adopting some type of system to link funding to performance (Burke, 1998). According to Neal, the ultimate questions concerning higher education accountability were: "How and to what degree are colleges and universities obligated to justify their existence? To whom must they report? Can higher

education adequately explain itself in terms desired by its various supporters and detractors?" (p. 6).

Although performance funding was first implemented in Tennessee in 1979 as a means of improving the effectiveness and public perception of institutions of higher education (Bogue, 1980), the public's perception of higher education quality has not greatly improved (Collins, 1996). Other colleges have encountered similar problems when they attempted, either voluntarily or through state mandates, to implement effective measures of performance.

McKeown and Layzell (1994) observed that there was only one point that higher education funding experts agreed on – there was no perfect formula. Lassiter (1983) stated, "The search for an ideal formula might be likened to the pursuit of the Fountain of Youth – it has never been found, nor does it exist" (p. 10). Institutions of higher education began to use funding formulas more than 50 years ago. Since the initial implementation of formula funding, numerous articles have been written about funding methods, how funding formulas can be used, and what issues funding formulas should address.

However, as Jones noted in 1984,

...one senses an increasing lack of clarity regarding what formulas are designed to do, what their characteristics are, and how they are supposed to relate to state policy. Instead the focus has shifted to the mechanistic....There is little evidence in the literature of a fundamental reassessment of formulas.... (p.46)

In 1994, McKeown and Layzell stated,

Treatment of higher education funding formulas in the literature has been primarily descriptive or mechanical in nature, unlike the relatively sophisticated analyses of elementary-secondary education funding formulas in the education finance literature. (p.45)

McKeown had already noted in 1989 that "...issues of student and taxpayer equity are not addressed very often in the literature of higher education finance, and certainly are not driving forces in state funding formulas" (p.102).

Although an extensive literature review identified numerous articles on Tennessee higher education funding, a historical review with the purpose of combining the lessons learned from the past with recommendations for future modifications to the higher education funding methods used by Tennessee had not been attempted.

Limitations and Delimitations of the Study

This study focused on public higher education institutions in Tennessee. The 26 post-secondary technology training centers were not included in this study because their funding was not addressed in the early development stages of Tennessee's higher education funding formula. Other public institutions in the United States and other countries were excluded from this study. The results of this study may not be generalized to other states or nations.

This study is based upon qualitative methodology as defined by Merriam (1988). Risks and limitations regarding the researcher, the qualitative nature of the questions in the research instrument and variances created by the interview process are inherent in qualitative research. Even with these risks and limitations, "...research focused on discovery, insight, and understanding from the perspective of those being studied offers the greatest promise of making significant contributions to the knowledge base and practice of education" (Merriam, 1988, p.7). The researcher for this study was aware that her 23 years of experience in higher education finance and her current position as Vice President for Business Affairs at a Tennessee community college could potentially bias the findings of this study. She attempted to remove the

risk that personal biases impacted the findings and recommendations by holding discussions with a peer-debriefer, by supporting all conclusions with independent facts and data, and by using an inquiry auditor to confirm the accuracy and adequacy of the research process.

Definitions

1. The Tennessee Board of Regents (TBR): The TBR serves as the governing board for all institutions of public higher education in Tennessee, with the exception of the University of Tennessee (UT) system. The TBR system represents six universities, 13 two-year colleges, and 26 technology centers strategically located across the state (T.C.A. 49-8-101, 1972).
2. Southern Regional Education Board (SREB): Consists of 15 member states: Alabama, Arkansas, Florida, Georgia, Kentucky, Louisiana, Maryland, Mississippi, North Carolina, Oklahoma, South Carolina, Tennessee, Texas, Virginia, and West Virginia (Caruthers & Marks, 1994).
3. The Tennessee Higher Education Commission (THEC): The THEC serves as the coordinating board for all institutions of public higher education in Tennessee. The commission is responsible for recommending to the Legislature the operating budget requests, capital outlay requests, and academic program offerings for all of Tennessee higher education (T.C.A. 49-4201, 1967).
4. Funding Formula: “A mathematical basis for estimating budgetary requirements and/or allocating dollars to institutions of higher education using a set of rates, ratios, and/or percentages derived from cost studies and peer analyses” (McKeown & Layzell, 1994, p. 1).
5. Performance Funding: The use of outcome measures to determine monetary reward for institutions of higher education. “Performance funding ties specified state funding directly and tightly to the performance of public campuses on individual indicators” (Burke, Rosen, Minassians, & Lessard, 2000, p. 3).
6. Performance Budgeting: A budgeting method that “... allows governors, legislators, and coordinating or governing boards to consider campus achievement on performance indicators as *one factor* in determining campus allocations” (Burke, et al., 2000, p. 3). In performance budgeting, the link of resources to results is loose, discretionary, and uncertain (Burke et al., 2000).
7. Student Fees: Student fees, also referred to as tuition and fees in various publications, are charges to students enrolled in courses or class hours. These are enrollment fees based on the numbers of credit hours for which students enroll. Student fees also include other miscellaneous charges assessed in conjunction with registration, such as technology access fees, activity fees, and parking fees. Student fees do not include the cost of housing.

Overview

The call for development of effective methods to link performance to funding for higher education has increased dramatically over the past decade, according to various researchers such as Burke (1998), Collins (1996), Gaither (1995), Neal (1995), and Ruppert (1995). As legislators and the general public demand higher levels of accountability, it is imperative that higher education leaders provide data on performance that are both understandable and relevant to their constituents. The following chapters discuss the historical development of higher education funding formulas and the problems associated with developing and communicating data using funding formulas.

Chapter 2 reviews the historical development of public funding for higher education institutions within the United States. It reviews the funding methods currently in use, addresses weaknesses that are common in funding formulas, and reviews the long-term trends predicted for formula use and development. Efforts to link performance to funding and the impact this has had on funding stability are reviewed.

Chapter 3 discusses the research design that was used to address the questions identified relative to the historical development of higher education funding in Tennessee. It also discusses the methodology used in qualitative research projects and the limitations on transferability that result from this method of research.

The fourth chapter discusses the analysis of data gathered using qualitative research methods. The analysis includes “thick descriptions” gleaned from interviews conducted with persons involved in the development of Tennessee’s funding formula. Information obtained from the review of primary documents, such as minutes of meetings, annual reports to the

governor on the status of higher education in the state, studies commissioned by the Tennessee General Assembly and other interested organizations, and memorandums and letters were used to supplement and verify data obtained through interviews. A limited quantitative analysis of expenditure and revenue trends is included.

Chapter 5 includes a summary of the qualitative analyses and draws conclusions regarding elements of funding for higher education institutions that have not worked in the past and should not be considered in Tennessee's revised funding formula. This chapter also suggests modifications to the funding formula to increase its future usefulness and acceptance. Recommendations for further research are included.

CHAPTER 2

REVIEW OF RELATED LITERATURE

Introduction

Funding of public higher education using a formula dates back to California's use of a faculty-staffing formula in the early 1950s (Moss & Gaither as cited in Noe, 1986). McKeown (1989) maintained that formula funding began in Texas in the 1940s, followed by California, Indiana, and Oklahoma in the use of formula techniques by 1950. Prior to the use of funding formulas, public higher education funding was a political process very much dependent upon the lobbying abilities of the presidents of the individual institutions and the political power of the legislators supporting the institutions (Noe). According to Moss and Gaither (as cited by Noe),

...the politics surrounding institutional funding was perhaps the greatest single factor contributing to a recent increase of formulas in higher education. Prior to formula funding, each public institution approached the state legislature and presented its request for funding. This subjective method fostered a great deal of power politics and intrigue, resulting in the capstone institutions faring much better than other state institutions. (p. 369)

Funding under this scenario was unpredictable and extremely competitive.

Defining Formula Funding

According to McKeown and Layzell (1994), the first literature on funding formulas was provided by James L. Miller at the University of Michigan in the early 1960s. Miller (as cited in McKeown & Layzell, 1994) defined a funding formula as,

[a]n objective procedure for estimating the future budgetary requirements of a college or university through the manipulation of objective data about future programs, and relationships between programs and costs, in such a way as to derive an estimate of future costs. (p.6)

Miller noted that the goal for adopting a formula was to achieve a sense of adequacy, stability, and predictability in institutional funding levels. Layzell and Caruthers (1995) observed that “funding formulas had evolved over time into complicated methods with multiple purposes and outcomes” (p. 4). They stated “the terms ‘funding formula’ or ‘guidelines’ refer to a mathematical basis for allocating dollars to institutions of higher education using a set of rates, ratios, and/or percentages derived from cost studies and peer analyses” (p. 1). From their research, McKeown and Layzell (1994) observed that, “No two state funding formulas are exactly the same in structure” (p. 2). States vary from using few to using many formulas and from applying formulas to their entire higher education budgets to applying formulas to only parts of their budgets.

McKeown and Layzell (1994) noted that, “What one state considers a formula or guideline may not be considered as such by another state or even individuals within the same state” (p. 326). While this makes identifying the number of states using formula funding for higher education difficult, it is apparent that formula funding continues to be popular. In his 1973 study, Gross (as cited in Lamb, 1986) found that 25 states were using such formulas, with an additional 11 states using some form of objective criteria for developing operating budget requests. In the fall of 1980, a study conducted by the Maryland State Board for Higher Education identified 29 states that used guidelines or formulas in the development of budget requests or the allocation of funding (Lamb). McKeown and Layzell noted that 36 states were using formula funding in 1984, while only 33 states responded that they were using a formula to fund higher education in 1988 and 1992. All but five of the 33 states identified in 1992 were from the southern/southeastern regions of the United States. Caruthers and Marks’s 1994 study of SREB states revealed that in all 15 member states, “some party (state higher education

agency, governor, or legislature) used a formula method at some phase of the budget (request/review/recommend, appropriate, or allocate to institutions) for public two-year or four-year colleges and universities” (p. 2).

In 1979, Gross (as cited in Noe, 1986) identified commonalities among states’ budget formulas:

1. Budget formulas are complex. They can include nearly every major facet of a university. Most states limit formula calculations to determining the resource requirements of instruction, libraries, student services, physical plant operation and maintenance, and institutional support.
2. Budget formulas recognize few base factors. Most formulas restrict base factors to enrollment attributions, such as, student credit hours, square feet of building space, and acreage or grounds.
3. Budget formulas utilize one or more of three computational methods: (a) rate per base factor unit (RPBU); (b) a percentage of base factor (PBF); and (c) the base factor-position ratio with salary rates (BF-PR/SR).
4. Budget formulas are zero-based. The purpose of zero-based budgeting in higher education is to maximize the cost effectiveness of an institution by keeping resources as directly related as possible to valued program goals. Most budget formulas follow zero-based budgeting (ZBB) approaches, whereby the total appropriation request is developed anew each year using quantitative institutional base factors.
5. Budget formulas lack differentiation among institutions. Most formula states are content to fund alike similar programs at similar levels.
6. Budget formulas assume a linear relationship between base factors and resource requirements.
7. Formula budgeting is more prevalent than formula funding. Two methods of application for formula funding have been identified: (1) the unit approach, which arrives at the total estimated monetary needs of a particular functional area through one calculation, and (2) the itemized approach, which arrives at the total budget for a particular area through two or more separate calculations. (p. 372)

In the 1994 report, Caruthers and Marks noted the following:

Non-mathematical but routinized decisions (for example, funding next year’s utilities at the level of prior year actual expenditures), as well as various “rules” concerning how to apply the formula (e.g., which credit hours are counted, whether formula generated

funding can be less than prior year actual, or how to handle situations where the appropriation is inadequate to fund the request), are part of the funding method but are not considered part of a formula. (p. 1)

Advantages and Disadvantages of Formula Funding

A review of the literature showed that the perceived advantages of funding formulas have been numerous. For states considering formula funding, the following advantages were enumerated in Gross's 1973 study (as cited by Lamb, 1986):

1. Budget formulas can be developed to objectively estimate the funding needs for most of the functional budget areas of colleges and universities;
2. Budget formulas can reduce the bickering and open competition among institutions that occurs in the absence of a rational, objective means for allocating funds;
3. Budget formulas can potentially assure each institution of a base operating appropriation;
4. Budget formulas can provide state officials with a reasonably simple and understandable basis for analyzing higher education financial requirements;
5. Budget formulas represent a compromise between line-item budgeting and institutional fiscal autonomy. (p. 29)

In addition to the immediate appeal of objectivity, reduced competition for funding among institutions, and adequate and equitable funding, Lamb quoted Miller's 1964 study that cited the following advantages: (a) facilitation of analysis and information provision, (b) facilitation of inter-institutional comparisons, and (c) facilitation of the highlighting of important policy questions (p. 2). Additional advantages identified by Cross, Valley, and Associates (1974) included a move away from state control of institutional budgets toward more institutional

autonomy. Cross et al., also emphasized that the early formulas were reasonably understandable for state officials providing the funding to higher education.

In his 1986 study, Noe stated that "...formula approach in funding appears to be the best available method developed to date...in the allocation of taxpayer's dollars" (p. 376). Noe noted that although formula funding was not perfect, it did provide equitable and adequate funding and objectivity by removing the political process from funding. A nationwide panel of educators, noted for their expertise in education finance, developed criteria for evaluating formulas (Gross, as cited in Lamb, 1986). Those criteria were (a) clear and comprehensible, (b) flexible, (c) not for detailed control, (d) recognized diverse financial needs, (e) equitable, (f) broad-based, (g) recognized varying instructional costs, and (h) objective.

In 1973, Gross (as cited in Lamb, 1986) identified the following disadvantages of formula funding:

1. Budget formulas do not recognize quality and this dilemma will continue until some means for quantifying and measuring quality is developed;
2. Budget formulas have a great potential for a "leveling" effect upon the quality of education if used solely on an equalization basis;
3. Budget formulas can restrict the operating budgets of institutions by requiring that all unrestricted revenues be deducted in arriving at state appropriations, by precluding the distribution of surplus state funds to higher education, and by using a base not adequate to predict requirements;
4. Budget formulas can perpetuate inadequate appropriations if the base and formula factors are not adjusted over time;

5. Budget formulas, because of their reliance upon base and formula factors, historical costs, and arbitrary assumptions, can entice institutions to increase enrollments or otherwise manipulate data in order to maximize their income. (p.30)

Additional disadvantages have since been added to the list:

1. Formulas may reduce incentives for institutions to seek outside funding (McKeown, 1996);
2. Enrollment-driven formulas may be inadequate to meet the needs of changing client bases or new programs initiatives (Halstead, as cited in McKeown, 1996);
3. Formulas are only as accurate as the data on which they are based (McKeown, 1996);
4. Formulas cannot serve as substitutes for public policy decisions (Miller, as cited in McKeown, 1996); and
5. The linear nature of formulas may not account for sudden shifts in enrollments and costs (Boutwell, as cited in McKeown, 1996).

According to Noe (1986) the frequently cited criticism of formula funding is the “leveling” effect it has on program quality. In response to this criticism of formula funding, Carter (as cited by Noe), observed:

If state institutions of higher education receive the same appropriations and tuition support per student, then they will all be placed in the same kind of financial circumstances, and each will become the pale shadow of all others. The fallacy in the reasoning is that it does not explain what differences in cost and support are desirable or necessary between institutions enrolling students in programs. Unless justifiable differences in expenditures and hence in needs can be explained and are acceptable as desirable public policy, then this criticism has little validity. (p. 373)

Evolution of Funding Formulas

Funding formulas have evolved over the years to address both internal and external environmental factors faced by higher education institutions. According to McKeown (1989), the development of formulas by the various states had represented a political compromise among higher education institutions, the state agencies responsible for higher education, and state budget officials. Caruthers and Marks's (1993) study stated that funding methods, both formula and non-formula, had been designed to achieve different objectives. Funding methods have been designed to provide "adequate" funding, to distribute funds "equitably," or to provide "stability" from year to year. The evolution of formula development had been from a simple formula based on workload factors with no recognition of campus roles to multiple sets of formulas based on complex cost studies with recognition of differences among institutions.

Some states have adapted other states' formulas to their use to avoid the high cost and time required for conducting their own cost studies. Many states are using peer comparisons in their formulas to achieve equity within each state and also to approximate parity with similar institutions in other states (McKeown & Layzell, 1994). According to the 1993 SREB study (Caruthers & Marks), funding methods had come to rely on comparative data such as salary averages of peer institutions and quantitative elements such as student/faculty ratios to meet the objectives of adequacy, growth, and objectivity. Formulas had served a variety of uses, including making recommendations on funding to both the executive and legislative branches of state government, developing the higher education budget, allocating appropriations to the various institutions, and developing the individual institution's budget (Caruthers & Marks, 1993; McKeown, 1989; Noe 1986).

Caruthers and Marks (1988) identified stages of higher education development by time periods, and they identified the mid-to-late 1960s as the “golden growth phase;” 1970s was a time for planning for retrenchment and accountability; while the 1980s brought a growing concern for improved quality, especially quality in undergraduate education. Concern for quality continued throughout the 1990s, but became commensurate with concerns for protecting base budgets as enrollments stabilized and/or started to decline. For the most part, the evolution of the objectives of funding methods has paralleled the stages of higher education development. Caruthers and Marks’s SREB 1993 report identified the following funding stages: 1950s – Adequacy; 1960s – Growth; 1970s – Equity; 1980s – Stability/Quality; 1990s – Stability/Accountability/Reform. According to the SREB report, each decade’s new objective became an additional rather than a replacement purpose relative to the funding process.

Retrenchment, Accountability, and Funding Equity

Early funding formulas were for the most part enrollment driven and were based on projected enrollments rather than current- or prior-year actual enrollments. By the 1970s, modifications to funding formulas were being recommended. This resulted from retrenchment and accountability standards identified by Caruthers and Marks in 1988 and the move beyond the growth objective of funding in the 1960s to an equity objective for the 1970s. Noe (1986) defined equity in terms of operations: (a) Appropriation support based upon program costs; (b) Appropriation support based upon work load; and (c) Appropriation support based upon a common definition of available income. (p. 368).

Millett (as cited in Noe, 1986) commented:

As a matter of administrative and legislative practice, the determination of what constitutes equity in the provision of state government appropriation support is not so

simple. Institutions of higher education have many good reasons to offer why they need and could well use more income. In addition, public institutions have had a different history, one from another, and so they perceive their role and their income needs as being different. (p. 368)

In 1975, upon projecting enrollment, cost, and revenue trends for Michigan higher education through 1985, Agor concluded that Michigan's funding formula should be modified to incorporate funding by program and level of instruction, with emphasis given to funding particular programs and services rather than funding enrollments. Huff (as cited in Hashway & Cain, 1992) discussed using differential funding to begin to address declining enrollments.

Meeth (1975) contended that in the current educational environment of fewer traditional-age full-time students, the use of formulas based on full-time equivalent (FTE) student hours worked against what formulas were designed to achieve. Meeth cited survey results that encouraged restructuring formulas and budgeting guidelines to take into account the special characteristics of nontraditional education. Included in the suggestions were student-faculty contact hours rather than the traditional credit-hour measurements to diminish the impact of increasing numbers of part-time students in nontraditional education programs versus full-time students in traditional programs. Other alternatives to the traditional credit-hour measurement included value-added achievement rates to measure the amount of learning and program budgeting that recognized the special features and purposes of different educational programs.

McClintock (1980) discussed the shortcomings of using historical expenditure patterns as a funding basis. McClintock quoted William R. Dickson, Vice President for Professional Affairs of the Association of Physical Plant Administrators of Universities and Colleges (APPAUC), who expressed concern about the *inherent danger* of relying on budget formulas exclusively. The most glaring flaw cited was the perpetuation of inequities that occurred when

historical expenditure patterns were used. Dickson stated, “A formula might be considered to be a good formula if it is simple, flexible, sensitive to changing conditions, is based on reasonable and adequate data, and does the job intended of it” (cited in McClintock, p. 2).

Dickson expressed concern that formulas ignored the human influence in funding distributions and the differences within and among institutions even within the same state system. Meisinger (as cited in Lamb, 1986) emphasized that budget formulas were not just objective, equitable, value-free instruments, but influenced and were influenced by organizational behavior. Meisinger predicted:

If enrollments decline rapidly on a statewide basis, or even differentially among institutions, it seems likely that budgetary formulas would become popular as instruments for budget generation and justification, for the same reasons that hold for their use in times of rapid budget growth. Budgetary formulas used on the downward side, however, will have to be grounded on different data bases than formulas used on the upward side.... With the tendency toward the managerial role at the state level, one would expect the manager’s concern for program performance, unit costs, and budget totals to be manifest in the development of new formulas based on marginal cost differences. (p. 31)

Concerns for Quality and Funding Stability

The review of literature during the 1980s revealed an accelerated concern for de-emphasizing the role enrollments played in funding formulas and an increasing emphasis on quality, especially in undergraduate education. The Sloan Foundation (as cited in Lamb, 1986) recommended a flat budget with per-student subsidies. Gross (1982) discussed variable and fixed costs. Lassiter (1983) recommended standardized workload measures and full disclosure of costs.

According to Ewell (1985), public colleges and universities must overcome “structural obstacles” (p. 5) before improvements in effectiveness, especially in undergraduate education, could be accomplished. Ewell identified the following structural obstacles:

1. Lack of Clear Priorities. Public colleges and universities are often bewilderingly multi-functional. Because of the stated desire to achieve everything, focused allocation of resources to key functions is difficult. The undergraduate teaching function tends to be particularly neglected in favor of activities with greater glamor [sic].
2. Fragmented Responsibilities. The strong departmental structures of most colleges and universities, and a division of labor between “academic” and “student service” functions, generally means that responsibility and accountability for student success and failure is badly divided. Student success is everybody’s business but nobody’s explicit responsibility.
3. Lack of Incentives for Improvement. Like the allocation of public funds to institutions themselves, most budgetary allocation within public colleges and universities proceeds on the basis of teaching volume rather than on the basis of demonstrated quality. As a result, few mechanisms exist for rewarding exemplary performance or for encouraging innovation.
4. Lack of Information About Effectiveness. Assessment of the actual learning outcomes produced by colleges and universities, while a growing activity on many campuses, is still seen as illegitimate by many faculty and as insufficiently precise by many others. More importantly, few mechanisms exist for introducing such information into the actual process of decision-making on campus. (p.5)

Ewell (1985) discussed some budget-based mechanisms that had the potential of being catalysts for the needed changes:

1. Modifying Enrollment-Driven Formulas. This can be accomplished using a “peer group” comparison approach; developing formulas with a wide range of input factors; allocating funds through differential formulas to reinforce differences in assigned mission.
2. Performance Funding: This can be accomplished by attaching a small percent of total funding to performance criteria (e.g., Tennessee’s Instructional Evaluation), promised demonstrable changes in student performance (e.g., Missouri’s plan), providing support for actual degrees produced (e.g., New York’s Bundy Funds), funding endowed chairs (Florida’s matching program).

3. Special-Purpose Funds. Funds are set aside to fund exemplary programs on a competitive basis.

Funding formulas were predicted to provide base funding to maintain fundamental operations and to reflect the demand for access while performance-based, set-asides, and grant programs would provide flexible incentives for innovation and qualitative improvements (Ewell, 1985).

Jones (as cited in Lamb, 1986), saw little difference between base factors in formula budgeting and incremental budgeting and expressed the concern that both lacked long-range planning and program accountability. Jones suggested that current formulas should be reformulated within a framework of carefully designed educational objectives. Jones suggested that buffering and/or decoupling, marginal costing, or the use of fixed and variable costs were three key approaches used to "...disengage funding levels from strict linear dependence on enrollments" (as cited in Lamb, p. 43).

Buffering and/or decoupling limits the responsiveness of the budget to enrollment changes (Jones, as cited in Lamb, 1986). Buffering can take many forms -- multiyear averaging, limits on allowable or recognized growth or decline, or a corridor or threshold for enrollment changes to occur before funding is affected. Decoupling removes as many linkages to enrollment as possible from the funding formula. Marginal costing techniques calculate the cost of adding or subtracting one student. Funding changes are less dramatic under this technique since economies of scale dictate that educating one additional student is less than the average cost of educating all students. Political considerations and accurate calculations have limited the usefulness of this technique. A fixed and variable costing method separates funding into two components. The *fixed* component is a result of the mission and commitment to excellence of

the institution and must be funded regardless of enrollment level. Costs that rise and fall with the number of students are considered variable and can be funded using an enrollment-driven formula. Jones considered this the soundest method since it addresses institutional quality and viability within resource allocation.

Quality, Stability, and Reform

In 1989, McKeown discussed the move to lessen the impact of enrollment-driven budgeting. McKeown stated that current formulas did not take into consideration the clientele shift to older, part-time, non-traditional students who came to colleges less well prepared than had their full-time traditional counterparts, and suggested that formula funding failed to take into consideration the public perception of quality with the new clientele. To remedy these shortcomings, some states implemented differential budgeting – by academic disciplines, i.e., engineering versus education; levels of enrollments, i.e., freshman/sophomore versus junior/senior; and by types of institutions, i.e., community college versus university. McKeown (1989) also discussed adding quality factors to budgets. Incentives to improve quality included improved student performance, higher quality programs, lower student/faculty ratios, more efficient management, as well as initiatives to address state priorities and improve planning. McKeown (1989) acknowledged that while higher education was not a basic civil right, it was desirable for all who could benefit.

Caruthers and Marks (1988) stated that inflexible enrollment-driven formulas were barriers to quality. They discussed the trend toward funding with incentive grants that was occurring in SREB states. Incentive grants allow higher education institutions to retain their autonomy while they achieve greater diversity and quality among programs. Caruthers and

Marks (1988) also called for higher entrance standards for colleges and universities. Their 1993 SREB study noted that quality concerns were being addressed through non-formula special initiatives such as endowed chairs, centers of excellence, and incentive funding.

Marcus (1995) wrote that state officials were becoming more dissatisfied with enrollment-driven formulas because they did not allow resources to be focused on statewide policy concerns. He found that state government leaders frequently had targeted higher education funds, especially toward programs that would help the state's economy or social harmony. He also noted that many states had become more *outcomes-oriented*, including graduation rates in their funding formulas, and more states are considering similar measures. Additionally, many institutions were calling for new funding mechanisms; mechanisms that allowed them to spend according to their own goals and priorities. In 1995 the enrollment-driven funding approach in use in many states caused institutions to increase their enrollments and expand their graduate programs, often lowering admissions standards to keep enrollments strong. Institutions with declining enrollments were attacking enrollment-driven formulas with the argument that they have fixed costs that must be met despite their lower enrollments.

Long-Term Funding Trends

Noe (1986) discussed several trends that were expected to impact higher education funding in the future:

1. Changing student body composition with a reduction in the traditional college-age, full-time student and an increase in the number of older part-time students;
2. Selective growth and retrenchment within and among institutions, which reflects not only the change in student-body composition, but also the changing curricular preferences of students;

3. Rising costs stemming from both inflation and the inability of colleges and universities to increase productivity sufficiently to offset increases in salaries and benefits;
4. Increasing government involvement neglected in the increased monitoring of all operations of higher education by both the legislative and executive branches of state governments as well as increasing federal legislation affecting higher education; and
5. Increasing competition with other state agencies for limited funds which, when combined with the perception of a declining economic value of a college education, may result in higher education becoming more of a discretionary item in state budgets and receiving a small proportion of new state dollars (p. 375).

In accordance with Noe's anticipated trends, Caruthers and Marks (1988) identified four long-term trends in the use and development of formulas: (a) more detailed budget categories; (b) more budget control and monitoring of formula categories by state boards of higher education and legislative and/or executive budget staffs; (c) more non-formula components such as incentive or special purpose grants, i.e., equipment grants, quality improvement incentives; (d) less emphasis on enrollments in formulas in anticipation of enrollment declines. Layzell and Caruthers identified these same four long-term trends in their review of performance funding in 1995.

Marcus (1995) noted that the overall appropriations to higher education in all 50 states had declined in fiscal year 1992 for the first time in the 40 years that data had been kept. Additionally, fiscal year 1993 saw an increase of less than the inflation rate. Marcus predicted that, "The prospects for return to the days of robust state appropriations for public colleges and universities seem dim" (p. 11). Many factors contribute to the bleak outlook: (a) state revenues and federal assistance are declining, (b) taxpayer revolts, demands for money for prisons, crime-fighting, Medicaid, welfare, and K-12 education are impacting higher education funding; (c) higher education is usually the largest discretionary item in the state budget and, therefore, the easiest to cut; (d) higher education has an independent source of revenue – tuition and fees.

In 1993, John Folger and Dennis Jones, on behalf of the Education Commission of the States, developed a state fiscal policy approach that sought to combine funding for institutions with funding for state priorities (as cited in Marcus, 1995). Folger and Jones proposed a three-part budget with a base component for continuing operations, a capital budget for buildings and equipment, and a special-purpose component of five to ten percent for either competitive grants or outcomes-based incentive funding. Although a few higher education analysts have endorsed the plan, states such as New Jersey and Ohio had already learned that "...political priorities change among state leaders" (Marcus, p. 12). Additionally, Marcus stated, "Institutions tend to detest special-purpose funds, however laudable the social priorities, if there is insufficient money to fund the efforts that campus faculty and administrators believe are important" (p. 12).

Special initiative funding is ultimately concerned with quality and outcomes but links funding with outcomes only indirectly (Layzell & Caruthers, 1995). Two early versions of special initiative funding occurred in Ohio (Selective Excellence Program) and New Jersey (Competitive and Challenge Grants). Ohio's program began in 1983 with five incentive-based programs attached to distinct goals – enhancing undergraduate education, attracting world-class faculty, developing centers of excellence, and stimulating research excellence. A sixth program was added in 1987 to reward excellence in liberal arts education. The Ohio program was partially eliminated in the early 1990s due to budget constraints (Layzell & Caruthers). New Jersey's Challenge Grant program was implemented in 1986 to encourage colleges and universities to develop focused missions and to improve programs in what the state considered high priority areas. The New Jersey program also was eliminated in the early 1990s due to budget problems (Layzell & Caruthers).

Patricia Gumpert, executive director of the National Center for Postsecondary Improvement (NCPI), and John D. Jennings (1999), a colleague, examined financial and enrollment data collected by the National Center for Education Statistics from 1975 through 1995. Their analysis focused on three questions:

1. Has revenue from private sources increased for public colleges and universities?
2. Has spending on instruction declined relative to spending on other functions in public higher education institutions?
3. Are public institutions' revenue and expenditure patterns similar to or different from those of private institutions? (p. 1)

The results of their study show that by 1995, institutional revenues (e.g., tuition, fees, and sales/services activities) had grown to represent from 19% to 28% of all revenues, second only to state sources. Increases in revenues from private sources (e.g., gifts, grants, and contracts) had ranged from three to five percent per year during the 20 years studied, although revenues from private sources had remained a small proportion of total revenue for public institutions -- from one to seven percent. Over the same 20-year period, revenues from local, state, and federal government declined as a percentage of total revenues. Revenues from state governments, while still the largest source of total revenue for public institutions (28% to 46%), represented the largest decline -- an average of eight percent across all types of public institutions.

Expenditures for instruction also declined relative to other expenditures during the 20-year period studied by Gumpert and Jennings (1999). However, according to their findings, spending on non-instructional activities that supported instruction (e.g., academic support, student services, and scholarships and fellowships) increased strongly for all types of public institutions during the same period.

The third question is relevant to the growing concerns over the *privatization* of public higher education. Gumport and Jennings (1999) found that, while public and private institutions were beginning to depend on a similar mix of revenue sources, private institutions had increased spending on instruction for all types of institutions over the 20-year period. Additionally, private institutions had spent considerably more on instructional services and infrastructure than had public institutions over the same period. Gumport and Jennings presumed this was to offset the low-cost advantage of public institutions – private institutions were offering *better-quality* education to justify higher tuition costs. Gumport and Jennings concluded:

The clear differences in expenditure patterns and the great difference in magnitude of the few revenue sources that show convergence do not signal that public and private institutions are becoming so alike that the diversity of higher education in the United State is imminently threatened. ...However, these data do confirm a suspected pattern: public higher education has become state-assisted rather than state-supported. They also affirm the assumption that public colleges and universities have been obtaining a greater proportion of their revenue from non-state sources, as well as the speculation that they will continue efforts to cultivate new sources of revenue. (Public-private perspective section, para. 1).

Privatization schemes for public colleges and universities continued to be an item of discussion as state legislators gave a smaller share of tax dollars to public colleges in the early 2000s (Selingo, 2003). Colorado public institutions supported a proposal by their state legislature to give public higher education dollars directly to students to use like a voucher system. Three of the major research universities in South Carolina proposed breaking away from their higher education coordinating board to obtain flexibility to enter into public-private partnerships with private developers. The president of Wisconsin's university system suggested publicly that the state should turn its campuses over to an independent authority for operation. Privatization schemes on a smaller scale included breaking off discrete colleges, i.e., business and law schools, which could easily charge higher tuition rates (Selingo, 2003).

Selingo (2003) stated that it was unclear where the privatization move would go in the future. While some governors and higher education leaders appeared to support the idea, others expressed concerns. Selingo quoted one higher education leader from Oregon as having stated, “The more we engage in the rhetoric of privatization, the easier we make it for lawmakers to walk away....It’s outrageous that the state should become a minority partner in educating its undergraduates” (p. 7).

Performance Funding and Performance Budgeting

In the early 1990s, state legislators began to design outcomes assessments and performance funding programs to offset the incentives provided by enrollment-driven funding (Neal, 1995). According to Neal (1995), many of the early models of indicator systems were developed by state legislators and/or coordinating boards using designs implemented by other states without input from campus leaders within the respective states. This led to a *resist and react* response from many institutional leaders as they attempted to protect the autonomy of their institutions. Campus leaders in states where performance indicators had not been mandated began to approach policy makers offering to provide productivity and accountability measures in exchange for the flexibility of each institution or sector to design its own indicators.

Layzell and Caruthers (1995) stated that performance budgeting was in many ways a legacy of planning, programming, and budgeting system (PPBS) and zero-based budgeting (ZBB). Carter (as cited by Layzell & Caruthers) identified four characteristics of performance budgeting:

1. It presents the major purpose for which funds are allocated and sets measurable objectives;

2. It reports on past performance and uses common cost classifications that allow programs to be compared rather than focusing on line-item comparisons;
3. It offers management flexibility to reallocate money as needed, and to provide rewards for achievement or penalties for failure; and
4. It incorporates findings from periodic program evaluations that are supported by credible information that can be independently audited. (p. 4)

Performance funding programs are ultimately based on the concept of accountability and incorporate a direct tie between performance measures and funding allocations (Layzell & Caruthers, 1995). “‘Accountability’ refers to the responsibility of higher education to report on its failures and achievements to state government within a set of mutually agreed upon goals and objectives” (p. 5). State officials are going beyond the question of “Were the dollars appropriately spent?” to also asking, “What did we achieve with the dollars spent?”

Ewell and Jones (as cited in Layzell & Caruthers, 1995) noted four approaches used in measuring progress toward accountability:

1. Inputs, processes, outcomes: a “production” process model aimed at measuring the value added to departing students, perhaps through pre- and post-assessments;
2. Resource efficiency and effectiveness: an approach designed to measure the efficient usage of key resources such as faculty, space, and equipment using ratio analyses or similar techniques;
3. State need and return on investment: an approach built on the assumption that higher education is a strategic investment for states – it is designed to measure the fit between higher education and state needs (e.g., work force preparation);
4. “Customer” need and return on investment: an approach built on the notion of “consumerism” that is designed to measure the impact of higher education in meeting individual needs (e.g., retention and graduation rates, employability of graduates). (p. 6)

Within properly designed performance funding programs, policy goals and objectives will drive performance indicators, and not the other way around, according to Layzell and Caruthers (1995).

Ashworth (as cited in Layzell & Caruthers, 1995) cautioned that a fully implemented performance budgeting program produced two fundamental problems for higher education:

First, “uniform agreements on the values that would have to be cranked into a formula do not exist, and data are not available within reason or within tolerable costs to feed such a formula system (1994, p.11).” Secondly, it is conceivable that if all funding were distributed on a performance basis, that there could be significant redistribution of funds from year to year. This would adversely affect institution’s ability to plan and execute, ultimately defeating the purpose of performance budgeting. (p. 7)

Layzell and Caruthers acknowledged that if performance funding models were seen as too complex and burdensome, long-term acceptance would be questionable.

According to Burke (1998), most state legislators have found the balancing of statewide concerns with institutional diversity to be a fundamental problem in designing and implementing performance funding and/or performance budgeting. While performance funding/budgeting appeals to governors and legislators frustrated by what they see as public colleges’ and universities’ neglect of state and student needs and by the perceived lack of efficiency and effectiveness on public campuses, they recognize the problems inherent in performance funding. Burke identified the following as the more obvious problems created by performance funding and budgeting:

1. Budget uncertainty on all campuses and instability on some;
2. Linking funding with planning could be perceived as stressing financial over educational concerns;
3. Conflicts could exist between state accountability and institutional improvements;
4. Stressing statewide priorities could subvert the educational concerns of the campuses;

5. Statewide goals and comparable standards could diminish campuses' diversity;
6. Inequities in funding could occur since resources received and students served differ dramatically among campuses;
7. Higher education has complex and multiple goals that defy easy measurement; and
8. Developing a system of indicators for defining, measuring, and evaluating quality in higher education.

Burke et al. (2000) stated that “performance funding and budgeting add institutional performance to the traditional considerations of current costs, student enrollments, and inflationary increases” (p. 2). These methods of funding allocate resources for achieved results rather than promised results common to other funding formulas. For most states, funds allocated using either performance funding or budgeting have represented marginal additions rather than replacements of current funding methods. However, Burke et al., noted, “This practice shifts somewhat the budget question from what states should do for their campuses toward what campuses do for their states and their students” (p. 3). The fourth annual survey conducted by Burke et al., showed both increasing popularity and continuing volatility in the use of performance funding and budgeting. However, the seventh annual survey conducted in 2003 after the economic downturn showed a decline in the use of both performance funding and performance budgeting (Burke & Minassians, 2003).

According to Burke et al. (2000), “In performance funding, the relationship between funding and performance is tight, automatic, and formulaic” (p. 3). Campuses receive a designated amount or percent of funding when they meet defined targets or improvement levels. Burke et al., acknowledged, “The volatility of performance funding confirms the previous

conclusion that its desirability in theory is matched by its difficulty in practice. It is easier to adopt than to implement and easier to start than to sustain” (p. 3).

Many of the early performance funding programs contained rigid mandates that sought to radically reform higher education. Approximately 80% of the performance funding programs in place in 1997 were legislatively mandated, and, over one-half contained performance indicators prescribed by legislators. Later programs have fewer measures, and legislatively prescribed performance indicators are rare in the newer models. Additionally, new programs allow lead-time for program development and campus consultation before implementation (Burke et al., 2000).

Table 1 provides a listing of states that use performance funding and shows the changes that have occurred since the first survey in 1997.

Table 1. States with Performance Funding

| Surveys | Number (Percentage) | State |
|---------------------------------------------|------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| First 1997 | 10 states (20%) | Colorado, Connecticut, Florida, Kentucky, Minnesota, Missouri, Ohio, South Carolina, Tennessee, Washington |
| Second 1998 | 13 states (26%) | Colorado, Connecticut, Florida, Illinois, Indiana, Louisiana, Missouri, Ohio, Oklahoma, South Carolina, South Dakota, Tennessee, Washington |
| Third 1999 | 16 states (32%) | California, Connecticut, Florida, Illinois, Kansas, Louisiana, Missouri, New Jersey, New York, Ohio, Oklahoma, South Carolina, South Dakota, Tennessee, Texas, Virginia |
| Fourth 2000 | 17 states (34%) | California *, Colorado, Connecticut, Florida, Illinois *, Kansas, Louisiana, Missouri, New Jersey, New York **, Ohio, Oklahoma, Pennsylvania, South Carolina, South Dakota, Tennessee, Texas |
| Fifth 2001 | 19 states (38%) | Arkansas, California*, Colorado, Connecticut, Florida, Idaho, Illinois*, Kansas, Louisiana, Missouri, New Jersey, New York**, Ohio, Oregon, Pennsylvania, South Carolina, South Dakota, Tennessee, Texas |
| Sixth 2002 | 18 states (36%) | Colorado, Connecticut, Florida, Idaho, Illinois*, Kansas, Louisiana, Missouri, New Jersey, New York**, Ohio, Oklahoma, Oregon, Pennsylvania, South Carolina, South Dakota, Tennessee, Texas |
| Seventh 2003 | 15 states (30%) | Colorado, Connecticut, Florida, Idaho, Kansas, Louisiana, New York**, Ohio, Oklahoma, Oregon, Pennsylvania, South Carolina, South Dakota, Tennessee, Texas |
| * 2-year colleges only | | |
| ** State University of New York System only | | |

Note: From *Performance Reporting: "Real" Accountability or Accountability "Lite" Seventh Annual Survey 2003*, by Burke & Minassians, p. 5. Copyright 2003 by The Nelson A. Rockefeller Institute of Government. Reprinted with permission.

Performance budgeting links funding indirectly and loosely to results. Additional funding for improved performance depends solely on the judgment and discretion of state, coordinating boards or system officials. Political advantages to policymakers may explain the increasing popularity of performance budgeting. Burke et al. note that

State legislators may champion, in theory, altering campus budgets based on institutional performance, but they often oppose, in practice, programs that may result in budget losses to colleges and universities in their home districts. Performance budgeting offers a

political resolution of this troublesome dilemma. Policy makers can gain credit for considering performance in budgeting without provoking controversy by altering campus allocations. This program also retains a prized possession of legislators – control and discretion over state budgets. (p. 3)

Unlike other formula funding methods, performance budgeting is used most often for budget preparation and presentation but not for allocation to the individual campuses.

Institutions in 75 % of the states with performance budgeting submitted performance reports as a part of the budget process. Discussion of these reports with executive officials occurred in two-thirds of the states, and legislative committees received and discussed these reports in legislative budget hearings in two-thirds of the states. However, only approximately one half of executive budgets referred to the performance reports and only one fourth of the states reported on the performance of colleges and universities in their budget-related documents. In fact, a legislative staff member in Florida commented that the only obvious connection between funding and performance in that state was that the indicators and the allocations often appeared on the same page in the budget bill (Burke et al., 2000). Table 2 shows the changes that have occurred in states using performance budgeting since the first survey was conducted in 1997.

| Table 2. States with Performance Budgeting | | |
|--------------------------------------------|------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Surveys | Number (Percentage) | State |
| First 1997 | 16 states (32%) | Colorado, Florida, Georgia, Hawaii, Idaho, Illinois, Indiana, Iowa, Kansas, Mississippi, Nebraska, North Carolina, Oklahoma, Rhode Island, Texas, West Virginia |
| Second 1998 | 21 states (42%) | Colorado, Florida, Georgia, Hawaii, Idaho, Illinois, Indiana, Iowa, Kansas, Louisiana, Maine, Mississippi, Nebraska, North Carolina, Oklahoma, Oregon, Rhode Island, South Dakota, Texas, Washington, West Virginia |
| Third 1999 | 23 states (46%) | Connecticut, Florida, Georgia, Hawaii, Idaho, Illinois, Indiana, Iowa, Kansas, Louisiana, Maine, Massachusetts, Michigan, Nebraska, New Jersey, New Mexico, North Carolina, Oklahoma, Oregon, Texas, Virginia, Washington, West Virginia |
| Fourth 2000 | 28 states (56%) | Alabama, California, Connecticut, Florida, Georgia, Hawaii, Idaho, Illinois, Iowa, Kansas, Louisiana, Maine, Maryland, Massachusetts, Michigan, Mississippi, Missouri, Nebraska, Nevada, New Jersey, New Mexico, North Carolina, Oklahoma, Oregon, Texas, Utah, Virginia, Wisconsin |
| Fifth 2001 | 27 states (54%) | Alabama, California, Connecticut, Florida, Georgia, Hawaii, Idaho, Illinois, Iowa, Kansas, Louisiana, Maine, Maryland, Michigan, Mississippi, Missouri, Nebraska, Nevada, New Mexico, North Carolina, Oklahoma, Oregon, Texas, Utah, Virginia, Washington, Wisconsin |
| Sixth 2002 | 26 states (52%) | Arkansas, California, Connecticut, Florida, Georgia, Hawaii, Idaho, Illinois, Iowa, Kansas, Louisiana, Maine, Maryland, Michigan, Mississippi, Missouri, Nebraska, Nevada, New Mexico, North Carolina, Oklahoma, Texas, Utah, Vermont, Virginia, Wisconsin |
| Seventh 2003 | 21 states (42%) | California, Connecticut, Florida, Georgia, Hawaii, Idaho, Iowa, Kansas, Louisiana, Maine, Maryland, Michigan, Minnesota, Mississippi, Nebraska, Nevada, New Mexico, Oklahoma, Texas, Utah, Wisconsin |

Note: From *Performance Reporting: "Real" Accountability or Accountability "Lite" Seventh Annual Survey 2003*, by Burke & Minassians, p. 8. Copyright 2003 by The Nelson A. Rockefeller Institute of Government. Reprinted with permission.

Summary

Rising tuition cost, decreasing state resources, and greater demand for access to higher education have caused an increased demand for accountability from higher education (Burke,

1998; Ruppert, 1995). Higher education is America's thirteenth largest industry, with total costs in excess of \$120 billion annually (Ruppert). In the early 1990s, state legislators, faced with declining tax revenue and increasing costs for non-discretionary services such as corrections, healthcare, and welfare, were forced to attempt to achieve greater results with less money (Burke, 1998). Higher education, the largest discretionary item in state budgets, did not remain exempt from legislators' demands for greater accountability (Burke, 1998; Ruppert, 1995). A survey conducted in 2001 by the Center for the Study of Education Policy at Illinois State University reflected that higher education continued to be vulnerable to downturns in the economy and projected that zero growth or decline in state appropriations were strong possibilities for the near future (Schmidt, 2002).

In February 2003, Selingo predicted that the impact of the "ebb and flow of economic cycles" (p.1) would be different for higher education this time, even with the end of the fiscal squeeze. Selingo attributed this to several things including weak revenues and rising healthcare costs, but, most importantly, "lawmakers increasingly view higher education as a private good that should be supported more by students and donors, rather than as a public good that deserves state support" (p. 2). Selingo quoted Gordon K. Davies, senior adviser to the Education Commission on the States, as stating, "college leaders are fooling themselves if they think the end of this recession will be like all the others....What we're seeing is a systematic, careless withdrawal of concern and support for advanced education in this country at exactly the wrong time" (p. 3). Since 1980 funding provided to higher education by the states has dropped from 44% to 32 % of state budgets (Selingo).

Complaints concerning higher education have centered around undergraduate education and consisted of criticisms that colleges and universities were admitting too many underprepared

students and graduating too few of those enrolled; students were allowed too long to complete degrees; many students were graduating without the knowledge and skills necessary for productive careers; colleges and universities were uninterested in job training and economic development; colleges and universities lacked priorities and productivity; and administrative and support costs were consuming too many resources (Burke, 1998). Accountability policies adopted by many states have required that higher education be more publicly accountable to a broader, primarily external constituency that includes students, employers, parents, and the general public (Burke et al., 2000). Several states have based portions of the funding provided to higher education on performance.

Performance funding and budgeting are not without proponents and critics, both of whom are wondering to what extent performance indicators are serving the purposes for which they were intended. According to Burke et al. (2000), "...Performance funding is becoming more flexible, collaborative, and diverse" (p. 12). On the other hand, performance budgeting is clarifying the link between funding and performance.

According to Burke et al. (2000), the final test for any funding mechanism – performance funding, performance budgeting, incentive grants, funding formula – will be its ability to improve the performance of public colleges and universities. "Institutional improvement is unlikely to occur until campuses consider performance in internal allocations to their departments and divisions, which are largely responsible for producing the desired results" (Burke et al., 2000, p. 14). Nevertheless, there is a tendency to expect funding formulas to offset in some way the effect of underfunding – it cannot be done (Darling, England, Lang, & Lopers-Sweetman, 1989). "No formula can resolve the problem of seriously inadequate funding" (p. 562). The tension between supporting what exists and funding growth can only be addressed

through state policy. Once that policy question is answered, any number of funding formulas will be available to implement the policy.

CHAPTER 3

METHODOLOGY

This section contains a description of the research design, research participants, and procedures used in the collection and analysis of data for this study.

Research Design

This study was a historical review of funding methods and funding issues relative to public higher education institutions in Tennessee. According to Gall, Borg, and Gall (1996), “Historical research helps educators understand the present condition of education by shedding light on the past” (p. 643). This study attempted to shed light on current funding issues in Tennessee by reviewing the history of public higher education funding from its inception through the present.

Data Collection

The data collection methods for this research included the use of content analysis, personal interviews, and quantitative analysis of historical expenditure and revenue data. Content analysis involved the examination of various records and documents relevant to higher education funding. According to Lincoln and Guba (1985), there are numerous advantages to using documents and records as a source of information:

1. They are almost always *available*, on a low-cost or free basis.
2. They are a *stable* source of information, both in the sense that they may accurately reflect situations that occurred at some time in the past and that they can be analyzed and reanalyzed without undergoing changes in the interim.

3. They are a *rich* source of information, contextually relevant and grounded in the contexts they represent.
4. They are often *legally unassailable*, representing, especially in the case of records, formal statements that satisfy some accountability requirements.
5. They are, unlike human respondents, nonreactive. (p. 276)

Lincoln and Guba (1985) defined records to mean, “Any written or recorded statement prepared by or for an individual or organization for the purpose of *attesting to an event or providing an accounting*” (p. 277). Records for purposes of this study included minutes of meetings of the Tennessee Higher Education Commission (THEC); annual reports on education provided by the Commissioner of Education; reports on studies commissioned by state officials; accountability reports prepared by the THEC, TBR and UT; official budget-related documents from colleges and universities, the THEC, the governor’s budget staff and state legislators; and annual financial audit reports of the colleges and universities. Archival databases at the East Tennessee State University Library and at the Tennessee State Library were searched for relevant records and these were reviewed as they were identified. THEC’s library provided many relevant records, studies, and accountability reports.

The term document includes any other written material that is not a record (Lincoln & Guba, 1985). Documents that were reviewed for this research included: newspaper articles and editorials, memoranda and letters related to higher education funding, speeches made by individuals influential in higher education funding, case studies, and other articles written on Tennessee higher education funding. Other documents were reviewed as they were identified during the research process.

Primary sources were used whenever possible. Gall et al. (1996) defined primary source as “a record ... that was generated by people who personally witnessed or participated in the

historical events of interest” (p.653). According to Gall et al. “The four types of primary sources in historical research are (1) written documents or records, (2) quantitative records, (3) oral records, and (4) relics” (p. 653). These sources may be “...handwritten and typed material, published and unpublished material, material prepared for the public record and material intended only for private use” (p. 653).

Personal interviews were used as a research method. This method of data collection involves a face-to-face meeting between two people in which the respondent answers questions posed by the interviewer. According to Lincoln and Guba (1985), the purposes for doing an interview include,

...obtaining *here-and-now constructions* of persons, events, activities, organizations, feelings, motivations, claims, concerns, and other entities; *reconstructions* of such entities as experienced in the past; *projections* of such entities as they are expected to be experienced in the future; verification, emendation, and extension of information (constructions, reconstructions, or projections) obtained from other sources, human and nonhuman (triangulation). (p.268)

Using a technique called snowball sampling (also called chain sampling), informants were selected based on their influence upon and/or involvement in higher education funding in Tennessee. According to Patton (1990), the power of purposeful sampling, of which snowball sampling is one example, lies in locating information-rich key informants. The size of the sample was 15; however, Patton (as cited in Gall et al., 1996) suggested,

...a researcher could study a specific set of experiences for a larger number of people (seeking breadth) or a more open range of experiences for a smaller number of people (seeking depth). In-depth information from a small number of people can be very valuable, especially if the cases are information-rich. Less depth from a larger number of people can be especially helpful in exploring a phenomenon and trying to document diversity or understand variation. (p. 236)

The success of this study was determined not by size, but by selecting subjects who could provide crucial information relative to the history of funding. Each person interviewed was

asked to recommend others that might provide valuable information relative to the funding history of Tennessee colleges and universities.

Dr. Richard Rhoda, Executive Director of THEC, Mr. James Vaden, Chief Financial Officer for THEC, and Dr. Robert Adams, Vice Chancellor for Business and Finance at TBR, identified the following individuals as important informants for this study:

1. Dr. John Folger, former executive director of THEC. Dr. Folger came to Tennessee from Florida to start the THEC.
2. Dr. Wayne Brown, former Executive Director of THEC. Dr. Brown was the second executive director of the THEC, and he was executive director during the time the performance-funding project was implemented in 1979.
3. Dr. Roy Nicks, former Chancellor of TBR and President Emeritus of ETSU. Dr. Nicks is assisting THEC with the current formula review.
4. Dr. Charles Manning, current Chancellor of TBR.
5. Dr. Joe Johnson, President Emeritus of the University of Tennessee (currently Acting President of UT). Dr. Johnson is assisting THEC with the current formula review.
6. Dr. Ed Boling, President Emeritus of the University of Tennessee. Dr. Boling served as Commissioner of Finance and Administration for the State of Tennessee prior to joining the staff of UT.
7. Mr. Gerald Adams, Tennessee Deputy Commissioner of Finance and Administration.
8. Mr. Louis Donelson, former Commissioner of Finance and Administration under Governor Winfield Dunn and former Chair of the Tennessee Higher Education Commission

9. Ms. Connie Hardin, Director, Office of Legislative Budget Analysis, Tennessee General Assembly.
10. Dr. Arliss Roaden, former Executive Director of THEC. Dr. Roaden was executive director during the time Chairs of Excellence and Centers of Excellence were implemented. Dr. Roaden also served as president of Tennessee Technological University prior to serving as executive director of THEC.
11. Dr. Brenda Albright, former Deputy Executive Director of THEC.
12. Dr. Gene Smith, retired Vice President for Finance and Administration at the University of Memphis. Dr. Smith also served as Interim President at Middle Tennessee State University during 2001.
13. Mr. Raymond Pipkin, retired Associate Vice President for Finance and Administration at the University of Memphis. Mr. Pipkin had done some research on the funding history in Tennessee.
14. Mr. Emerson H. Fly, retired Vice President and Treasurer at the University of Tennessee and Acting President at the University of Tennessee during 2001. Mr. Fly is current Acting Executive Vice President at UT.
15. Ms. Sylvia Davis, Vice President for Budget and Finance at the University of Tennessee. Ms. Davis is assisting THEC with the current formula review.
16. Dr. Hal R. Ramer, President Emeritus of Volunteer State Community College. Dr. Ramer served as assistant state education commissioner for higher education from 1963 to 1970.
17. Dr. Wade Powers, President Emeritus of Northeast State Technical Community College.

Respondents were identified on the basis of their longevity in Tennessee higher education and/or the timeframe of their service and because they represent a cross-section of state officials, officials of governing boards, and university and community college officials. A personal interview was not conducted with Dr. Ed Boling; however, a copy of his doctoral dissertation on developing an objective method for funding higher education in Tennessee was obtained and reviewed for this study. Mr. Louis Donelson was out of the country and not available for an interview. A personal interview with Ms. Connie Hardin was not conducted; however, her comments during the formula review committee meetings were reviewed and incorporated into this study. A tape-recorded interview was not conducted with Mr. Raymond Pipkin; however, a telephone interview was conducted and Mr. Pipkin provided extensive typewritten data for the study.

The nature of this study allowed for identifying other knowledgeable respondents for the study. Based upon multiple recommendations from prior interviewees the following individuals were interviewed for the study:

1. Mr. John Bragg, former Tennessee Legislator and Chair of the House Ways and Means Committee.
2. Dr. Robert Adams, Vice Chancellor for Finance and Administration for TBR. Dr. Adams had worked as an auditor of higher education institutions in the Tennessee State Audit Division, as Vice President for Finance and Administration at APSU and as Chief Financial Officer for THEC prior to coming to TBR as vice chancellor.
3. Mr. O. W. Higley, Executive Director of Fiscal Affairs for THEC.

Several styles of interviewing have been recommended by qualitative researchers (Glesne & Peshkin, 1992; Lincoln & Guba, 1985; Patton & Sawicki, 1993; Marshall & Rossman, 1995).

An unstructured or *elite* interviewing approach was used in this study. This style of interview was recommended by Marshall and Rossman when the interviewee is influential, prominent and well informed in areas relevant to the research. According to Lincoln and Guba, "...the unstructured interview is the mode of choice when the interviewer *does not know what he or she doesn't know* and must therefore rely on the respondent to tell him or her" (p. 269).

An interview guide of broad issues was developed from the literature review conducted before the interviews took place, from content analysis of documents and records, and from the professional experiences of the researcher in the area of higher education funding. The interview guide was pilot tested with individuals knowledgeable of higher education funding in Tennessee, but persons not identified in the potential list of informants. Interview data were analyzed after each interview, and the interview guide was refined to follow-up on ideas gleaned from the respondents. This process continued until no significant new information was obtained.

Data Analysis

Questions 1 through 4 and question 8 were answered using interviews and by reviewing documents and records. Data obtained using these methods were analyzed by a procedure known as constant comparative method (Gall et al., 1995; Lincoln & Guba, 1985). The constant comparative method uses logic to generate meaning. Patterns, themes, and categories come from the data, rather than being imposed prior to data collection and analysis (Patton, 1990). All interviews with the exception of those noted above were tape recorded and transcribed. The transcribed interviews, interview notes, and data obtained from documents and records were organized into categories chronologically and thematically.

The following questions were the focus of this study:

Question 1. How were Tennessee colleges and universities funded during their early history, and what problems did funding present for the institutions?

Question 2. When did Tennessee implement a formula-funding mechanism, and what were the reasons behind this implementation?

Question 3. What changes have occurred in the funding formula, and what was the driving force behind each change?

Question 4. What were the reasons for using data from peer institutions, and how were peer institutions initially selected? What changes have occurred in the selection of peer institutions and why were the change(s) considered necessary? What additional changes are necessary?

Question 5. How do formula-identified resource requirements compare with recommendations made by the state executive branch and actual funds appropriated by the legislative branch over the past 10 years?

Question 6. Have functional expenditure patterns varied over the past 10 years as funding has continued to slide to a lesser percentage of the total resources available to the institutions?

Question 7. Have revenue sources of the institutions varied over the past 10 years and, if so, in what ways?

Question 8. What changes should be made in state structures, policies, and procedures to improve the way the funding requirements for Tennessee's state colleges and universities are identified?

Questions 5 through 7 required analyzing quantitative data from annual financial reports and budget-related documents. Question 5 was answered by performing a comparison of the budget request for public colleges and universities submitted by the THEC to the Governor, the amount of funding recommended in the Governor's budget, and the actual appropriation amounts received by the institutions. Transferring functional expenditure categories to percentages and performing a trend analysis on this data answered question 6. Functional expenditure categories of instruction, academic support, research, community and public service, student services, institutional support, and operation and maintenance of plant facilities were calculated as a percentage of the total expenditures for all of these categories. Data for institutions in both systems were included for the past 10 years, beginning in 1992-93. Only unrestricted educational and general expenditures were considered, because, generally, only these expenditures are supported by state appropriations. Question 7 was answered by transferring the revenue categories of tuition and fees, state appropriations, other revenue sources, and auxiliary enterprise revenues to percentages of total revenues and identifying changes in revenue sources over the defined period. Only unrestricted revenue sources were considered.

Verification

Qualitative research as an alternative research method has led to the development of alternative methods to establish trustworthiness of research conducted using qualitative methods. Four components have been identified as important in establishing trustworthiness: credibility, transferability, dependability, and confirmability (Lincoln & Guba, 1985).

Credibility is concerned with whether the inquirer's analysis and interpretation of the data are believable and can be established using any one of five techniques: prolonged engagement at

the site; persistent observation; peer debriefing; triangulation; referential adequacy materials; and/or negative case analysis (Lincoln & Guba). Peer debriefing was selected to provide for credibility for this research project, although data triangulation also provided credibility through comparison of interview data among the respondents and with documents and records reviewed. Peer debriefing serves multiple purposes, but foremost it serves to keep the inquirer *honest*. The process involves probing for biases of the inquirer, exploring meanings of the data gathered, and clarifying inquirer interpretations of the data. Additional benefits of using a peer debriefer include allowing the inquirer to test insights and to receive advice about important emerging theories as well as providing the opportunity for the inquirer to discharge personal feelings of anxiety and stress that might affect the research (Lincoln & Guba).

Ms. Carole Shaw, Interim Vice President for Academic and Student Affairs at Northeast State Technical Community College, served as peer debriefer for this study. Ms. Shaw has over 18 years of experience in higher education and is responsible for all aspects of instruction, academic support, and student services at Northeast State. She is within the same age range and shares a collegial relationship with me. Notes were maintained of each meeting between me and the debriefer to provide an audit trail and to help me establish why the inquiry emerged as it did.

Transferability is very difficult to establish in a qualitative study, although some degree is possible if enough *thick description* is provided. Lincoln and Guba (1985) stated, “It is...not the naturalist’s task to provide an index of transferability; it is his or her responsibility to provide the data base that makes transferability judgements possible on the part of potential appliers” (p. 316). Snowball sampling was used to maximize the range of information that was collected, and thick descriptions have been included in the analysis of the data gathered to facilitate judgments about whether the transfer may be possible. According to Merriam (1988), “Thick description is

a term from anthropology and means the complete, literal description of the incident or entity being investigated” (p. 11).

The method used in this study to establish dependability and confirmability is inquiry audit. The inquiry audit is based metaphorically on the fiscal audit (Lincoln & Guba, 1985). This technique involves examining the process for collecting data for adequacy, ensuring transcriptions of data are accurate, and inspecting the data and all the analysis derived from the data for accuracy (Lincoln and Guba, 1985). Dr. David Collins, Vice President for Finance at East Tennessee State University, served as the inquiry auditor for this project. The following information was provided to Dr. Collins for his review: taped interviews and transcriptions, researcher’s journal, and notes from the categorization process. Procedures outlined in Appendix B of Lincoln and Guba’s *Naturalistic Inquiry* were followed for the auditing process.

CHAPTER 4
HISTORICAL REVIEW AND FINANCIAL ANALYSIS OF HIGHER EDUCATION FUNDING
IN TENNESSEE

Introduction

This review is concerned with the agencies, activities, people, and political influences that have shaped the history of higher education funding in Tennessee. Although the review covers the history from the early 1800s through the beginning of the 21st century, emphasis is given to the period of the early 1960s through the year 2000. It is the purpose of this study to describe and analyze the efforts that have been made in the State of Tennessee to provide adequate and equitable funding to public higher education institutions created to meet the educational needs of the populace at a level higher than that which can be provided by the elementary and secondary school systems.

The struggle for adequate and equitable funding for the state's two systems of public higher education is still in progress – Tennessee ranks 12th among its peer institutions that are members of the Southern Region Education Board (SREB) when compared by dollars spent per student (SREB Fact Book, 2003). The hope for this study is best expressed by quoting Andrew David Holt (“Andy” Holt) from the Preface of his book, *The Struggle for a State System of Public Schools in Tennessee, 1903-1936*:

It is hoped that the educational campaigners of the present and future may profit from this account of the activities of the campaigners of earlier days. Some of the techniques employed in earlier struggles, for example, may prove valuable in the struggle of today; and a knowledge of the difficulties encountered and overcome by the friends of education in earlier days will very likely give courage and inspiration to the present friends of education in the state. (xi)

Support for Higher Education – The Early Years

According to Merriam (1893) early efforts to provide higher education opportunities for the citizens of Tennessee came primarily through private initiatives. Merriam states “Practically all that has been done by the Government for colleges and universities has been done by the United States and not by Tennessee herself (p.17).” In 1806, the United States Congress appropriated 100,000 acres of public land in Tennessee for the establishment of two colleges – one in east Tennessee and one in west Tennessee. East Tennessee College at Knoxville was chartered and combined with Blount College for the purpose of becoming the college in east Tennessee; Cumberland College at Nashville secured the grant for the college in the west (Merriam, 1893). East Tennessee College at Knoxville became the University of Tennessee in 1879 and Cumberland College at Nashville became the University of Nashville in 1826.

According to Merriam (1893):

In ceding to the United States the territory which subsequently became the State of Tennessee, North Carolina stipulated that the inhabitants of said territory “should enjoy all the privileges, benefits, and advantages’ guaranteed to the inhabitants of the Northwest Territory in the celebrated ordinance of 1787.” One of the guaranties was: “Religion, morality, and knowledge being necessary to good government and the happiness of mankind, schools and the means of education shall forever be encouraged.” In compliance with these conditions of cession Congress passed an act April 18, 1806, granting certain public lands to the State of Tennessee for educational purposes....100,000 acres for the benefit of two colleges, one-half to each, to be established in East and West Tennessee, respectively. (p. 23)

Problems existed with this land grant. The land grant act left the disposition of the colleges’ land in the hands of the Tennessee legislature; however, the act stipulated that Tennessee should locate in one tract the 100,000 acres and the land should not be sold for less than \$2 per acre. The public lands granted by Congress had been settled by white men prior to 1806, and their

rights were confirmed by both North Carolina in its act of cession and by Congress in its 1806 Land Grant act. The 1806 Land Grant provided “that no settler be allowed more than 640 acres and that not more than \$1 an acre should be paid to the State for the land” (p. 37). Merriam (1893) noted that

Tennessee could carry out the spirit of the trust only by doing one of three things: charge the occupants \$2 per acre, sell 400,000 acres at \$1 an acre instead of 200,000 acres at \$2 an acre, or wait until the Indian title to still other lands should be extinguished and then appropriate them. But Tennessee did none of these things. (p. 37)

The colleges were many years receiving the benefit of this land grant and then only a minute portion of the original value was received; the University of Nashville eventually received \$40,000 but it is not clear how much, if any, the University of Tennessee received.

Merriam (1893) notes that

President Carnes secured from the legislature of 1859-60 a resolution asking the state supreme court to report the facts regarding the land grant of 1806, accompanied by their opinion of the right of the university to further compensation on account of failure to receive the full donation. Nothing seems to have come from this action. President Carnes, in the meantime resigned. (p. 67)

University of Nashville

Cumberland College was founded as Davidson Academy in 1785 by a legislative bill through the North Carolina legislature (Merriam, 1893). North Carolina “endow[ed] her new creation with 240 acres of land immediately adjoining the town of Nashville to the south” (Merriam, 1893, p. 21). This was 11 years before Tennessee was admitted to the Federal Union in 1796. By the time Davidson Academy became a college, its endowment had been “frittered away or sold for a song” (Merriam, 1893, p.21) – no one having a notion that Nashville would eventually become the capital of the new State of Tennessee. A lack of financial means caused Cumberland College to suspend its operations from 1816 until 1822 when it was resuscitated to become the University of Nashville in 1826 under the leadership of Dr. Philip Lindsley.

Dr. Lindsley came to the University of Nashville having refused the position of president of his alma mater – Princeton University (Merriam, 1893). Dr. Lindsley turned down the presidency of “one of the three greatest institutions of learning in the United States, in order to go to the small college in the Southwest, not known beyond the limits of the State in which it was situated” (Merriam, 1893, p.26) because of an “assurance given that Cumberland College had a foundation of at least \$100,000, the donation of the mother State through the national Congress and guaranteed by the general assembly of the State of Tennessee” (Merriam, 1893, p. 26). However this never came to fruition:

In 1837-38 the general assembly offered to the university in lieu of its congressional land claims a half township of land, or 11,520 acres, in the Ocoee district, which had just been acquired from the Indians. The offer was accepted and the vexations matter was at last settled. Forty thousand dollars were received from the sale of the Ocoee lands in 1839-40. The money was invested, mostly, in Tennessee bonds and constituted the first productive fund the university ever had. The great check to the expansion of Nashville University was its lack of means. (Merriam, 1893, p. 37)

The lack of means was matched by innovative ways to raise money in support of the university, a banking scheme and a lottery scheme among those. According to Merriam (1893), “The University was continually borrowing money on the security of individual trustees” (p. 39). Private subscriptions, skillful real estate investments, and tuition were the major sources of financial support. Dr. Lindsley proposed, but it was never implemented, a scheme whereby each professor would be completely autonomous in his own school and his salary largely paid by the fees of his school.

Dr. Lindsley’s disappointment with the support that the University of Nashville received from the state and the people of Nashville was expressed during his baccalaureate address on October 7, 1829:

I did once flatter myself that the people of Tennessee would rally round this infant seat of science and take a just pride in its growth and prosperity. I did suppose that they would

cherish an institution of their own, established in their own flourishing metropolis...
(Merriam, 1893, p. 27)

Having no hope of receiving state aid or the private support of the citizens, Dr. Lindsley turned to the alumni of the university – the young men he had trained:

Where, then, is the ground of our hopes and of our encouragement? It is in the growing strength and moral influence of our own enlightened, loyal, and patriotic sons....It is in them, under the propitious smiles and overruling Providence of the Most High, that we place our confidence and garner up our soul's fondest aspirations....We say, or rather let the university proudly say, 'These are our sons. We sent them forth into the world, and by the world's spontaneous verdict upon their training and their bearing will we abide.'
(Merriam, 1893, p. 27)

The University of Nashville closed its doors to undergraduate education, other than teacher training, in 1850. In 1903 the university consisted of Peabody College, the Medical College, and the Montgomery Bell Academy (Porter, 1903). Peabody College merged with Vanderbilt University in the summer of 1979 (History, n.d.). The medical college was merged with the University of Tennessee in 1911.

State Support of Higher Education

It is unfair to say that Tennessee provided no support for higher education in the early history of the state, albeit indirectly. In 1822 Tennessee relinquished her right to tax, for 28 years, thousands of acres of land belonging to the University of North Carolina in return for 60,000 acres of land to become the property of East Tennessee College and Cumberland College (Merriam, 1893). Additionally, in 1883 Tennessee passed a law to exempt from taxation “all property belonging to any religious, charitable, scientific, literary, or educational institution and actually used for the purposes for which said institution was created” (Merriam, 1893, p. 17). In 1831 the state made its first appropriation to higher education - \$10,000 annually for two years to the State Normal College (Peabody) - \$2500 was designated for higher and normal education of

children of African descent at a college or normal school of their choice, and \$2500 was designated for scholarships in the normal college.

The first state appropriation for Tennessee's flagship university did not come until 1903.

Charles W. Dabney, President of the University of Tennessee reported in 1903 that,

The most important fact in the history of the University during the past year was the appropriation by the General Assembly of \$10,000 for the purchase of land for the University Experiment Station. This is notable, not by reason of the size or object of the appropriation, but for the fact that it is the first direct appropriation made to the institution from the treasury of the State. (p. 320)

In 1905 UT received another \$25,000 to establish schools of technology, and in 1907 the state appropriated \$100,000 to be used for instructional salaries, repairs and maintenance, equipment, transportation of students to the campus, and for the agricultural extension program in Middle Tennessee. Additionally, \$40,000 of the \$100,000 was to be used to construct an agricultural hall (Humphreys, 1957).

In 1909 the legislature of Tennessee wrote into the statutes clear and definite provisions for funding higher education (Pierce & Albright, 1957). The General Education Bill of 1909 provided for education to receive 25% of the state's gross revenues (Humphreys, 1957). The bill also provided for the establishment of three normal schools to train white teachers, one in each of the three grand divisions of the state, and one normal school for colored teachers to be located in Nashville (this became Tennessee Agricultural and Industrial Normal School). Thirteen percent of the state's revenues designated for education were for the establishment and maintenance of the newly created normal schools. Another seven percent was designated for UT giving higher education 20% of the total funds earmarked for education. From this time forward the General Assembly made regular state appropriations (generally increasing amounts) to higher education of Tennessee.

A Growing Industry – State Support in the First Half of the 20th Century

In 1959 Hungate wrote “to understand the fiscal practices and trends in higher education today, one must be aware of the forces that have shaped its development” (p.312). This almost sixty-year time span was a period of change and growth and evaluation for higher education nationally and Tennessee was not immune to these changes. Changes in the curriculums of higher education institutions from a classical emphasis to high standards of scholarship in science, the arts, and in the professions were occurring (Hungate). The Morrill Act of 1862 created in each state at least one land-grant college “where the object should be, without excluding other scientific and classical studies, and including military tactics, to teach such branches of learning as are related to agriculture and mechanic arts” (Kandel, 1959). The University of Tennessee was designated as Tennessee’s land-grant college in 1869, receiving a financial boost of almost \$400,000 (Brief Historical Sketch of University of Tennessee, 2003).

Fueled by the financial boost of the Morrill Act of 1862, and the continued infusion of state appropriations on a regular basis after 1903, the University of Tennessee developed into a modern university with medical, dental, nursing, social work, and architecture programs. The University was able to add doctoral programs in various fields and to expand its physical facilities. In 1912, the state established Tennessee Agricultural and Industrial College “as the 1890 land grant institution of the state pursuant to federal law” (TCA 49-8-801). Tennessee Agricultural and Industrial College (Tennessee A&I) was established in Nashville for the education of the state’s African-American students because the initial arrangements made by the University of Tennessee had not proved to be satisfactory. Meanwhile, the state was developing

other regional colleges – generally normal colleges for the training of teachers that later became regional universities.

By 1930 Tennessee was providing financial support to six colleges in various locations across the state and to the University of Tennessee (Humphreys, 1957). In 1930-31 the state provided \$2,105,000 to the six colleges and UT. However, 1930-31 was the peak for financial support of colleges for over a decade as the state began to feel the effects of the 1929 stock market crash. Tennessee had entered the “Depression Era” with “its finances in a precarious state” (Humphreys, p. 68) and the residents of the state were no better off as evidenced by the passage of a bill by the legislature allowing citizens additional time to pay their state and county taxes without incurring a penalty. The University of Memphis’s history reveals that in 1932 “a patient faculty had to wait until September to receive their salaries for February that year” (Bailey, 1987, p. 7). The financial position of the state became so dire that one senator planned to introduce a bill to close most of the public colleges across the state; however, the wisdom of the long-term benefit of these institutions to the state prevailed and the colleges managed to weather the fiscal crisis. Level funding to support operations in the amounts of \$450,000 for UT and \$312,000 to be shared by the six state colleges was provided from 1933-34 until 1937-38 when state funding once again began to increase (Humphreys).

In 1946-47, Tennessee provided \$2,369,339 in support of higher education in the state. The University of Tennessee received 59.3% of this and Tennessee A&I State University received 10.3%; the other five institutions received the balance (Pierce & Albright, 1957). By 1955-56, the state was providing \$12,867,287 in support of higher education; the seven public institutions received all except \$228,414 of the appropriated dollars. This was a whopping 433.4% increase in state appropriated dollars in support of higher education in the nine-year span

since 1946-47. However, the division of the funds shifted; in 1955-56, the University of Tennessee's portion dropped to 57.6%, Tennessee A&I State University's portion increased to 14.5%, and the other five institutions shared the balance of the funds with the distribution ranging from a low of 4.4% to Austin Peay State College to a high of 6.2% to Memphis State College. Even with this large infusion of state funding, state support represented only 47.3% of the total income of the publicly financed institutions in 1955-56. The next highest source of income was student fees, which provided another 16.4% of the institutions' budgets. These two major sources of income varied widely from institution to institution. In 1955-56, Tennessee A&I State University received only 14.8% of its income from student fees but received 83.2% from state funds while Memphis State received 36% of its income from student fees and only 59.7% from state funds.

Other sources of income such as auxiliary enterprise revenues, research grants, federal appropriations, gifts, and endowment income provided the balance of the institutions' needs. Only the University of Tennessee and Tennessee A&I State University had significant endowment income and income from gifts and grants, although Memphis State College reported a small amount of income from these sources in 1955-56. Federal appropriations went only to the two land-grant colleges – the University of Tennessee and Tennessee A&I State University. Federal appropriations provided to Tennessee A&I State University was not significant – only 1.6% of its total revenues for the year. Sales and services of educational departments also provided 3.5% of the total resources for the institutions; the University of Tennessee and Tennessee A&I State University reported the major portion of this income. However, both Austin Peay State College and Tennessee Polytechnic Institute reported some income from this source.

The increased state support for Tennessee's public institutions of higher education did not come in isolation within the state. Various studies were commissioned with organizations independent of the state and their recommendations have had far-reaching influence upon the governance and fiscal structure of public higher education in Tennessee. In addition to a study commissioned by Tennessee College Association in 1924, studies were conducted in 1934, 1946, and 1957 pursuant to 1933 Public Acts, 1945 Public Acts, and 1955 Public Acts (Rhoda, 1985). To establish a framework for Tennessee's funding history both the 1924 and the 1957 studies are examined for this review.

1924 Bureau of Education Survey

According to U.S. Bureau of Education statistics, Tennessee had ranked fairly well compared to its neighbors in the number of its citizens seeking a higher education at the turn of the century (United States Bureau of Education, 1926). However, in 1920-21 updated statistics showed that Tennessee now ranked 49th - at the bottom of the list in proportion of residents taking advantage of higher education. This was a tremendous concern to the Tennessee College Association and they contacted the Bureau of Education to do a study to determine the cause for this alarming situation.

In 1924, the Tennessee College Association commissioned the U.S. Bureau of Education to make a study of higher education in Tennessee. The purpose of the study was to determine why such a low proportion of Tennessee's population were seeking higher education and what could be done to ensure a greater percentage of the population sought higher learning. The study uncovered a number of reasons for this alarming condition including the fact that the state had established well-defined standards for higher education in the early 1900s that had not existed

prior to the turn of the century, thereby eliminating some instruction activities defined earlier as higher education. However, the report showed the primary contributor to the problems was the proliferation of small colleges within the state. In 1890, the Bureau listed 40 colleges and universities in Tennessee. Fourteen had been added, 12 had closed, 16 had become secondary schools, and others had consolidated since that time. The report stated that Tennessee was “strewn with the wrecks of many institutions of higher education” (United States Bureau of Education, 1926, p. 31). These small institutions were not economical, nor were they able to provide the well-rounded curriculum demanded by the students who now attend college. “In the long run the public must carry the burden, and it is undesirable from every point of view to impose on the public – the students and the donors – an inferior and uneconomical institution” (United States Bureau of Education, p. 39).

The report noted that the social and economic conditions of Tennessee certainly could support a quality higher education for its citizens and the state should do so if it did not want “to rely upon other States to train its future leadership” (United States Bureau of Education, 1926, p. 22). The study cautioned,

Unless Tennessee supplies the genius for future expansion, one of two conditions is likely to prevail: either progress will not occur at the rate which the resources warrant or the genius which will promote the expansion will come from the citizenry of other States, and Tennessee will pay tribute to other States. (United States Bureau of Education, p. 22)

Turning to the resources of the colleges and universities, the report showed that Tennessee, when compared to its border states, ranks fairly well in the amount of income available to its institutions. However,

...a relatively low percentage of the income of the higher education institutions in Tennessee is derived from the State and the cities – that is, from public taxation. On the other hand, in Tennessee a much higher percentage of income for maintenance comes from private benefactions than is general throughout the country. This latter fact should

be given some attention, for it implies the constant expenditure of funds which are raised through great effort. (United States Bureau of Education, 1926, p. 71)

1957 Pierce-Albright Study

In 1955 the Legislative Council recommended to the General Assembly that a long-range study of the complete educational systems of Tennessee be conducted. The General Assembly approved this request and a study was undertaken for both the elementary and secondary schools and higher education. The Pierce-Albright study was comprehensive, covering all aspects of education in Tennessee; however, only the higher education portion of the study and generally the financial resources analysis will be analyzed for this funding review. The Pierce-Albright study had two main objectives: “(a) to point up possible improvement in current programs of higher education in Tennessee with present resources, and (b) to provide a design for intelligent planning to meet future needs” (Pierce & Albright, 1957, p. xiii).

Fifteen recommendations were included in the Pierce-Albright (1957) study concerning public financing of higher education and the level at which funding was necessary to achieve state objectives. Seven of those recommendations are of direct interest to this study:

1. There should be further coordination of all institutional budgetary requests and budget operations.
2. A priority classification system should be adopted for developing budgetary requests.
3. The State of Tennessee should adopt an objective guide for the allocation of funds to the respective institutions.
4. A standardized accounting system should be developed for all institutions so that budgets may be based on comparable data and so that continuous studies of the total financial program of higher education may be made.
5. The policy of not depending heavily upon student fees as a source of income should be continued.

6. The general economy of Tennessee and the State's financial structure for the support of public higher education should be studied extensively in an effort to provide public institutions of higher learning with an immediate increase in appropriations and with appropriations of increasing amounts throughout the period of anticipated demands.
7. Salaries paid instructional staff members in the institutions should be substantially increased in the near future. (pp. 37-45)

Development of a Formula for Funding Higher Education

As stated earlier, the Pierce-Albright (1957) study recommended "the State of Tennessee should adopt an objective guide for the allocation of funds to the respective institutions" (p. 39). Additionally, the study observed that, "There is no coordination of the dual system of higher education in the State except that which may take place on a voluntary basis" (p. 11). This observation led to a recommendation that the General Assembly create a Commission on Higher Education. The new Commission on Higher Education should have duties related to coordination to include "the study of financial needs, budget reviews and coordination" (p. 48). The Pierce-Albright study contributed to Tennessee's decision to move toward an objective method for funding higher education. Additionally, a national move toward using formulas in education funding and political influences of the time each contributed momentum to Tennessee's move toward formula funding for the operations of its public higher education institutions (Folger, personal communication, August 21, 2003).

Political Aspects of Funding Leading to a Formula

Tennessee is unique with its dual system of higher education, but it has always been unique in that sense. Prior to the creation of the State Board of Regents (SBR) in 1972 to provide governance for all of the state universities except the University of Tennessee, those state universities were under the governance of the State Board of Education (SBE) while UT

had its own Board of Trustees. This contributed to the political aspects of governance and, therefore, funding decisions of the state that occurred in the 1960s. The University of Tennessee had its own Board of Trustees but the responsibility for securing funding from the state was the responsibility of the president of UT as it was for the individual presidents of the six other regional universities. Competition for funding was intense – between the UT and regional institutions, and also among the regional universities, and to a large extent between the higher education institutions and the other agencies of state government. Individuals active in state government at that time – Dr. Joe Johnson, Dr. Roy Nicks, Mr. Gerald Adams, and Dr. Hal Ramer – speak of that time with more merriment today than probably existed at the time. Others, for example Dr. Wade Powers, came in just before the THEC was created and funding was moving to a more objective approach. Dr. John Folger, the first executive director of THEC, was the person selected by the THEC board members to provide leadership for the development of the first higher education funding formula for Tennessee. These individuals caught the tailwinds of the earlier operating style and they certainly could relate the political environment of the time.

Nicks' first job with state government was working in Finance and Administration (F&A) starting in 1959. He was chief of the budget division and later deputy commissioner of F&A.

Nicks related that

In that role we had lots of negotiations and discussions with the higher education leadership. In those days that was the UT system and the other colleges and universities at that time were still under the SBE. Most of those negotiations went directly with the presidents of those institutions not with the SBE. Interesting times and the negotiations were often very heated! I remember that many times people didn't even meet in the same room; they met in separate rooms for the discussions. I remember that presidents sometimes even called each other names because they didn't like what the other one was getting. It was interesting discussions in those days! (Nicks, personal communication, September 2, 2003).

Gerald Adams started with Finance and Administration (F&A) in 1962 when the state still had a biennial budget process and F&A was the main agency dealing with higher education. Mr. Adams spoke of direct meetings with the two systems. “So it was a kind of interesting negotiating process!” was Adams’ comment (personal communication, September 12, 2003). As he described the process he said,

At some point the Commission of Finance would meet with the university presidents and the Commissioner of Education. In those days that was J. Howard Warf. Usually they would be meeting in the Commissioner’s, at that time Commissioner Matthew’s, office. And, he would pretty much tell them that well, this is what is going to be recommended and get their reaction to it. Sometimes that reaction could be quite colorful! (personal communication, September 12, 2003)

Ramer joined the SBE in 1963 as assistant state commissioner for higher education under Commissioner Howard Warf. Ramer related the following description of the funding process:

We use to have biennial sessions of the legislators so we had to work on a two-year budget. The Governor pretty well decided what was going to be the appropriation for each system – the UT system and the ... SBE system [for higher education]. We did not have, in the early years, the formula. It was pretty much what each President could convince the legislature to appropriate, although in the case of what was in the board of education system, the regional universities, the SBE did have some say-so on budget matters and reviewed appropriation requests (personal communication, August 20, 2003).

Powers, who spent time at several of the institutions, Nashville State Technical Institute, Volunteer State Community College, and Motlow Community College and ended his career as President of Northeast State Technical Community College, shared his perspective from the community college standpoint:

...back when I first started into higher education, every institution did their own lobbying. And, some of the presidents, quite frankly, were a lot more successful than others and they got more money. Dr. Derryberry at Tennessee Tech was a really fine lobbyist [*sic*] because they got lots of good money. Of course, the UT system has always been kind of, well what should I say, hog at the trough (personal communication, August 22, 2003).

Contributing to the colorful negotiating process was the lack of an objective way for the state to identify the needs of the institutions and/or distribute the funding that was available.

When questioned about whether the presidents had any kind of objective way of requesting their funding, Nicks responded that

Basically, it was just what each president thought they needed to run their institution and to grow and develop their institution. The UT system was a little more sophisticated in their approach than the other colleges and universities because of the other six universities that later came under the TBR did their own thing basically. They saw their needs from their viewpoint and not necessarily from the statewide point of view. (personal communication, September 2, 2003)

Adams provided the most complete description of the budget process at that time:

There was a formula as such – it dealt more incrementally....What we would do is we would take the enrollment figures, the early enrollment figures from September, and some how or other try to run that through. We had sort of... a rudimentary formula that we used within F&A. And, we run the figures to see what it generated. [T]o be honest about it if it generated more demand than we had resources available, you would go back and you would massage the formula. Here again, the formula in those days wasn't anything like what you have today...And, you would derive at a set of figures and then the Commissioner would review that and see how it fit within the total resources. I am sure he would have discussions with the Governor....When I came to work [it was] Governor Clement, and then Governor Ellington. (personal communication, September 12, 2003)

G. Adams stated that when he came to work at F&A, Dr. Joe Johnson was the chief of budget and was the one that effectively put the budget together for higher education. A review of Dr. Edward Boling's (1961) dissertation revealed that the 82nd General Assembly of Tennessee "expressed confidence in the study by deriving 1961-63 college appropriation amounts from application of base formulas" (p. ii). Johnson confirmed that they did in fact use Boling's formula "to get some feel of it but realizing that until somebody outside like the commission could come in and do all of that work we really wouldn't have [a formula]" (personal communication, October 22, 2003). Johnson stated that the formula they used was not

complex or complicated and it had no way to address issues related to the medical, dentistry, pharmacy, and law schools. They were still in a sense taking the prior year and adjusting it for enrollment growth, salary raises, and any improvements proposed by the institutions' presidents if these were agreed upon. However, there was no sophisticated way of determining whether a proposed program at one school was more important than a proposed program at another school other than what "Joe Johnson or Joe Johnson's successors would apply to that sitting in an F&A office on the first floor of the capital" (Johnson, personal communication, October 22, 2003). Johnson stated that they were "talking with the presidents and seeking to get them relatively happy and relatively quiet so we wouldn't be hearing from them through their legislators about the process of doing the budget" (personal communication, October 22, 2003). Johnson offered the following explanation for the creation of THEC:

That was the [budget] process - very informal, very unsophisticated, and totally nonformula. Ed Boling and I both arrived at the conclusion that this is really stupid – this is not the way to run a railroad. And that prompted Ed, who was getting his doctorate at Peabody at the time, of saying let's see if we can come up with some way of getting at [this]....And coming out of that was the nexus of the notion that there should be somebody that is sophisticated, somebody that has got some sense, somebody that would be the higher education commission. When Governor Ellington came in for his second term, Quill Cope, who was president of MTSU, Ed Boling, who was vice president at UT and I went to see Governor Ellington and said, Buford, you know we got to have some way – there is no arbitration – Joe is the arbitrator or the Commissioner of F&A is the arbitrator and those people don't really know, they don't have time to know, anything about higher education and we [feel] there ought to be a higher education commission that [will] review programmatic issues and develop a formula, review capital outlay requests and that sort of thing and develop some sophistication basis. (personal communication, October 22, 2003).

Creation of the THEC. Public Acts of 1967, chapter 179, section 1, created the Tennessee Higher Education Commission (TCA 49-7-201). Dr. Ed Boling and Dr. Quill Cope drafted Public Chapter 179, at the request of Governor Ellington, to "achieve coordination and unity in the program of public education" (Rhoda, 1985, p.59, quoting TCA 49-7-201). Both

Boling and Cope were leaders within their respective systems of higher education; Boling was assistant to the President of UT at that time, and Cope was President of MTSU (Wood, n.d).

THEC was charged with coordination of the state's higher education activities and specifically charged with developing policies and formulae or guidelines for the "fair and equitable distribution and use" of public funds in higher education.

Folger stated

Formation of THEC was political – created under Governor Ellington. Andy Holt, UT President, felt that the regional universities were growing into copies of UT, which the state didn't need and couldn't afford. Commissioner Warf had become very influential with the legislature, and the State was underway with a new Community College program, which Commissioner Warf was locating in ways that consolidated his influence with key legislators. Regional colleges had become universities, at least in name, and were pushing for doctoral (graduate) programs. Andy Holt was afraid there would not be enough money to support all of this. He supported the creation of THEC for this reason. Regional presidents thought that UT president Andy Holt was able to get too large a portion of the funding, and some of them (Memphis State, MTSU, Tennessee State) also thought a higher education commission might help them....The need for a more objective way of judging institutional requests for money was being recognized by the Commissioner of Finance and Administration. When Ed Boling was Commissioner of F&A, he wrote his dissertation at Peabody on ways of making more objective funding decisions. The same group of Democrats had been in charge of the state for 15 years (Governor Clement and Governor Ellington, Clement, and Ellington). Governors were more influential with the legislature then, and generally set the agenda for state action. (personal communication, August 21, 2003)

Adams stated there were

...limited negotiations with both groups because you had a little bit of leeway; we might set an upper limit and say we can go this high but no higher. And then, of course, each of them would have an opportunity...to meet directly with the Governor. And typically they would; I am sure that Dr. Holt and Dr. Boling would meet with the Governor and then Commissioner Warf would also meet with the Governor. This is sort of how we approached funding of higher education prior to the creation of THEC. Now that put an awful lot of pressure on the Commissioner of Finance....I remember that it became pretty obvious that there needed to be an organization that could spend time looking at the needs of higher education. (personal communication, September 12, 2003)

However, the political environment of Tennessee was not the only reason THEC was created. Dr. Brenda Albright commented,

Yes, it was an exciting time when you look at the growth of higher education.... and at that time in the '60s there were a number of coordinating boards similar to the THEC that were created around the country. And many of them had similar charges in terms to develop funding strategies. I think part of that had to do with the growth in higher education at that time, in terms of both institutions and students, with the baby boomers – I am a baby boomer – ...working through the system. (personal communication, September 2, 2003).

Creation of the Tennessee Board of Regents. Public Acts of 1972, chapter 838, established the State University and Community College System of Tennessee. The six regional universities and the nine existing community colleges were placed under the governance of the State Board of Regents (SBR) immediately upon its creation. The SBE's support of the bill to create the SBR hinged upon the community colleges being placed under the same board as the regional universities (Rhoda, 1985). The regional universities presidents' support was assured by their strong allegiance to Commissioner Warf and their uncertainty concerning his successor's ability to secure funding for the universities. Cecil C. Humphreys, president of Memphis State University, was selected as the first chancellor of the newly created SBR.

Dr. Gene Smith acknowledged that even after the THEC was created everybody was still lobbying the legislature especially the regional universities and the legislators were getting very frustrated and supported the creation of the SBR for that reason (personal communication, September 26, 2003). The University of Memphis had a concern over the placement of the community colleges and who would govern these new institutions. The administration at UM received wind of Andy Holt's push with Governor Clement to have the community colleges placed under the governance of UT. Although UM wanted to have their own board, Dr. Humphreys, who was president of UM at that time, was not sure that UM could fight UT alone because of UT's statewide representation through their county agents. Dr. Humphreys was a close friend of Governor Clement and with the assistance of Howard Warf was able to convince

Clement to place the community colleges under the SBR with the regional universities (Smith, personal communication, September 26, 2003). Governance of the four technical institutes and the 26 area vocational-technical schools was transferred to the SBR in 1983 further expanding the SBR's political base (Rhoda, 1985).

Influence of Individuals

In order to appreciate the complex, and often competing, agendas underlying higher education funding in the 1960s and early 1970s, an examination of the significant players is necessary. Discussions and review of documents repeatedly uncovered the names of J. Howard Warf, Andy Holt, John Bragg, John Folger, and Brenda Albright. Powerful personalities like Warf, Holt, and Bragg moved the state forward while Folger and Albright quietly executed activities necessary to instigate change.

Commissioner J. Howard Warf. Howard Warf was Commissioner of Education throughout the 1960s. Warf spent his life involved in education in some manner or other (Tennessee Department of Education, n.d.). Warf was “undoubtedly the strongest political figure to come to the post of Commissioner of Education since Harned” (Tennessee Department of Education, p. 26). Warf acknowledged that this caused him “substantial opposition in both professional and political circles” (Tennessee Department of Education, p. 26); however, it was also adamantly stated that his “administration will be judged one of the stronger ones as the history of the [Department of Education] is further written” (Tennessee Department of Education, p. 26). This brief biography is borne-out by the comments made about him in 2003! Folger stated, “Andy Holt was very good at getting funds from the legislators, but Howard Warf was better – look at the funding record from 1962 to 1967!” (personal communication, August

21, 2003). When he spoke of other persons within the Department of Education, Folger commented that, “Mr. Warf ran the SBE – it didn’t really matter who else was in these various positions because Mr. Warf made the decisions. He was a very good politician” (personal communication, August 21, 2003). Folger shared a story of a time when Governor Ellington really challenged Warf over a bill to abolish the THEC:

So this bill to kill THEC was moving right along and a couple of my commission members went to see Ellington and said, Look, you set us up and you wanted us to try to make the growth of higher education more orderly and try to see that the money was distributed more evenly or more fairly. Are you going to let this bill do away with the Commission? Ellington called Warf in and told him that he had to see that the bill died because he [Mr. Warf] had been the one behind it. And, just to show you Mr. Warf’s influence, about two hours later after Warf had met with the Governor, the prior sponsor of the bill, who was from upper east Tennessee- I’m not sure whether it was Johnson City or Kingsport, or anyway, he came to my office to explain to me why he was withdrawing the bill. And, of course, that really impressed me because it showed the remarkable control that Mr. Warf had with the legislators. (personal communication, August 21, 2003)

Not only did Mr. Warf’s powerful personality control his department staff and the legislators but he also exerted tremendous influence on the regional university presidents as well. Adams spoke of a budget meeting between Commissioner Matthews, Warf, and the presidents of the regional institutions:

And, well I will say this but I might want to take it out later – I do recall on one occasion the regional university presidents were quite agitated over, I don’t know whether it was the distribution between them and UT or just the distribution period, more than likely the latter, and I was still in the room....Commissioner Warf was in there and to quote, he was saying, ‘Now, Boys, let me tell you how it is.’ And that settled the issue! (personal communication, September 12, 2003)

Dr. Andrew David Holt. Everybody called him “Andy.” This was not a mark of disrespect but it “reflected perfectly the ease with which people came to know him, the familiarity they felt in his presence, the avuncular figure he cut with students and younger

colleagues” (Andrew D. Holt, n.d.). Holt, like Warf, spent his entire life in education – as a teacher, coach, administrator, politician, and author. Holt ended his career in the position of President of UT where he had served from 1959 until 1970. The competition for funding between Holt and the presidents of the regional universities is legendary. Dr. Arliss Roaden, the third executive director of THEC, shared this historical folklore:

The belief was that Andy Holt, President of UT, was such an effective person – a speaker, an artist of persuasion – he was able to get all of the money and run. And, the other institutions got what was left. There may be some truth to that – I am not sure. Andy Holt was a remarkable man. (personal communication, August 21, 2003)

Apparently there was truth to this. UT’s web site provides the following description of Holt’s tenure as president of that institution:

Holt’s presidency was marked by a burst of energy unsurpassed in the University’s history. Student enrollment tripled; faculty and staff doubled. Eight new buildings were added on the Knoxville campus; the west side of the campus was developed, doubling the size of the University’s physical plant and tripling its value. State appropriations rose over 400 percent, and so did the University’s budget. The Martin campus, which had achieved degree-granting status, added graduate programs; the Space Institute was established; the University of Chattanooga, privately owned, became part of the new UT System, created in 1968....He enticed and cajoled and pleaded and conned the state’s legislature, and many private citizens, into believing that the University required and deserved their financial support. (Andrew D. Holt, Retrieved September 9, 2003).

State Representative John Bragg. John Bragg was a Tennessee legislator for 28 years and Chair of the House Ways and Means Committee for 20 of those years. Bragg said he had two things he wanted to accomplish when he went to the legislature, “One was I wanted the legislature to be independent, I wanted that, and I wanted sound politics out of the legislative political examples (personal communication, September 3, 2003).” Apparently Bragg accomplished his objectives; in 1994, *Governing* magazine selected Tennessee as the best-managed of all 50 states due in part to the fiscal policies and regulations pushed by Bragg during his terms in the legislature (Middle Tennessee State University, May 8, 1999).

Bragg received MTSU's first-ever President's Award at the university's spring commencement ceremony on May 8, 1999. The following are excerpts from the remarks made at that ceremony:

He played a major role in legislation supporting the Better Schools program...Because of his diligent oversight more than 80 endowed chairs have been created at state universities through the Chairs of Excellence program. MTSU's vice president for Development and University Relations remarked that, "Through his work in the State Legislature, he was able to foster a better understanding of the importance of education throughout the State of Tennessee. Not only MTSU, but also other public universities are beneficiaries of his good work." (Middle Tennessee State University, May 8, 1999)

Bragg was known among his colleagues in the Legislature and among other state officials as an intelligent man, a man with integrity, and a fair man. State Representative Mary Ann Echcles remarked at the Commencement ceremony, "He has always been trusted as fair." Bragg was a "key legislator" for higher education and "always had time for you and an ear for you (Roaden, personal communication, August 21, 2003)." And he was instrumental in achieving acceptance among the legislators of the first funding formula:

One reason it was pretty well accepted was that I involved a committee of legislators and the person most influential in that was John Bragg...Bragg believed this was a good formula...There were four or five legislators, including John Bragg who did understand the details and the rationale. For most legislators, if Bragg said it was fair and it was right, they accepted it on faith. (Folger, personal communication, August 21, 2003)

Bragg's influence on higher education did not stop with supporting formula funding. Bragg was concerned that "everybody should be treated fairly and the same" (Bragg, personal communication, September 3, 2003), and he was also concerned with quality. In addition to supporting the Chairs of Excellence concept, Bragg developed a list of 15 benchmarks that institutions had to report on to the legislators every year. Bragg recalled,

What I did was I had 15 benchmarks that they were supposed to give us what happened on each of those 15 benchmarks. Almost like a year by year by year they would tell us which ones [were doing what]. They called them the 'Braggmarks!' ...And, they didn't like it cause they had to figure out every year what they had done. But, in so doing, they

found out why they called it ‘Braggmarks,’ because they had done well! I don’t know if they still do them or not. These were things that they had to [report] and they went across the whole board – community colleges and all of them. I wish I had the voice to tell you about them but that is how they came about. But some of the education people got to calling them ‘Braggmarks’ and legislators got to calling them ‘Braggmarks.’ (personal communication, September 3, 2003)

Dr. John Folger. The law creating THEC passed in May 1967 and Folger came to Tennessee in February 1968 as the first Executive Director of the new commission. Before coming to THEC, Folger was the graduate dean at Florida State University and had been with the SREB. Folger had “participated in a number of state studies of higher education with different states including Tennessee and had worked with some of the people who were developing models for funding public schools, as well as higher education” (Folger, personal communication, August 21, 2003). So Folger was already one step ahead on what the legislature had charged THEC to do – develop a method of reviewing and recommending appropriations for higher education to the governor and legislature. Folger stayed with the THEC until June of 1975. A standardized reporting and budgeting model, a cost study model, and a funding formula were developed during his tenure. Smith spoke of the respect and admiration that the institutions’ representatives on the first formula committee had for John Folger (personal communication, September 26, 2003). Smith stated that Folger “really provided tremendous leadership, he really pulled that together...John was the one who kept it on board in my opinion” (personal communication, September 26, 2003).

Dr. Brenda Albright. Albright started working for THEC right after she graduated from college with a baccalaureate degree. Albright was one of the first persons hired by Folger when he came in as Executive Director of the Commission. Her initial responsibilities “involved

developing information systems, which guided the development of the funding formula” (Albright, personal communication, September 2, 2003). Albright was involved in the funding work from the beginning and then involved in developing the funding policies. She was with the Commission through the 1970s and 1980s leaving the Commission in 1994. Albright worked with the first three executive directors of THEC – Folger, Brown, and Roaden. She was deputy director of the THEC when she left. When questioned about the move to using peer institution data in the formula, Dr. Wayne Brown commented that, “The person who knows the details of this very well is Brenda Albright. Brenda is a class act. Brenda’s brain is the one to mine about [the formula] (personal communication, August 22, 2003).” Nicks had a similar opinion of Albright:

Brenda [Albright] is the most knowledgeable person on the formula, or formula funding; I will put it that way, nationwide. She knows it backward and forward. You will learn more from her than you will ever learn, well other than John Folger, from the rest of us. (personal communication, September 2, 2003)

Designing the Formula

There was a lot of pressure for THEC to move forward with developing a funding formula – it was a new agency with a clear legislative mandate (Albright, personal communication, September 2, 2003). Albright remembered,

Initial discussions focused on how do you go about or what should be the policies for such a formula. And, a core in the Tennessee formula at that time was to provide similar support for similar programs. And, as you would communicate that to the public or to the political leaders the basic idea was that freshman level English at Columbia State Community College ought to be funded at the same level as freshman English at Middle Tennessee or UT-Knoxville. So that was basically sort of the underlying philosophy. (personal communication, September 2, 2003)

Gerald Adams stated,

Now my memory may be faulty but the thing I remember the most was, on the positive side, trying to develop equity, and on the practical side, how to live within that budget

process with these two higher education organizations battling you and/or each other! So equity was a very, very significant issue that, you know, the two systems may not be satisfied with the total dollar amount but where they would feel that at least they had a fair shot at what was distributed and had an ability to influence what would be discussed. (personal communication, September 12, 2003)

Two major challenges required immediate resolution: (a) there were no uniform guidelines for budgeting and financial reporting and (b) no consistent cost data were available to determine the amount each institution spent on their various programs.

The institutions and both governing boards recognized the need for uniform guidelines for budgeting and reporting (THEC minutes, March 31, 1970). Additionally, the legislative action that created THEC included among its duties, “the commission, in cooperation with the commissioner of finance and administration and the comptroller of the treasury, shall establish uniform standards of accounting, records, and statistical reporting systems....” (TCA 49-7-201). The Public Act required that these be “accepted national standards,” and that the institutions adhere to these standards in their submission of data and requests for appropriations. The THEC staff worked in cooperation with the Comptroller of the Treasury and the Department of Finance and Administration to develop a manual to “achieve comparable financial reporting, consistent from year to year, for all public higher education institutions in Tennessee” (THEC minutes, Attachment #1, March 30, 1970). The manual was based on the accounting, budgeting, and year-end financial reporting formats recommended by the American Council on Education. Mr. Morris Bass, former Director of Accounting at Memphis State University (now University of Memphis), provided technical expertise for the project. Upon the recommendation of the THEC staff, the Commission board members adopted the manual at their March 31, 1970, meeting and this became the format that all public institutions used to submit budgets and financial reports to the Commission.

In September 1969 THEC began a cost study as a basis for developing a fair and equitable method for the distribution of state funds. Albright remembered that, “initial work before the first formula was implemented involved collecting all those cost data. So, Tennessee developed one of the first cost study systems in the country that collected information on each course” (personal communication, September 2, 2003). The objective of the cost study was to determine the expenditure patterns for each institution. “The long-range goal of the study was to develop data which could be used as a basis for the development of a formula for the distribution of state funds to all public colleges and universities” (THEC Minutes, October 10, 1970, Attachment #1). The data were gathered by course level, i.e., freshman, sophomore, graduate, within each academic area. Academic areas were defined using the U.S. Office of Education HEGIS Taxonomy. Minutes of the THEC meeting on September 19, 1970, show that average salary cost for administrative, instructional, and clerical staff were collected along with costs for supplies and other expenses for instruction and departmental research, maintenance and operation of the physical plant, libraries, general administration, general expense, and student services. Formulas developed by Texas, Arkansas, and Ohio were used to compare the calculated average costs of all Tennessee institutions and adjustments were made where costs appeared to be out-of-line. The minutes reflect that the institutions were provided an opportunity to make comments and suggestions during the entire cost study process.

Applying the Formula

It is unclear when exactly the first formula developed by THEC was used for requesting funding for higher education. When asked to comment about when the first formula was developed, Folger stated,

I remember the first year we put the formula out and it called for an increase of almost 20% and the Commission recommended to the Governor a state increase of almost 20%. Buford Ellington didn't like that because he wasn't going to be accused of underfunding education. He was for education, and everybody knew we didn't have money like that. (personal communication, August 21, 2003)

The minutes of a special committee meeting of the THEC on October 10, 1970, reflect that John Folger gave a brief history of the development of the operating formula. Folger related that two years prior a formula was developed that had led to recommendations for an increase in appropriations that were beyond what the state resources could support. The minutes reflect that a simpler formula, which had been used in earlier years, was used to develop the 1969-70 and 1970-71 budgets. Higher education's appropriations for 1968-69 were \$74 million and THEC's 1969-70 recommendation to the Governor was \$92.5 million. The Governor requested \$83 million from the General Assembly and a final total of \$86 million was appropriated. In 1970-71, the Governor recommended \$95 million and \$98.5 million was appropriated. The minutes reflect that Folger estimated a "bare bones" budget for 1971-72 to be \$111 million, including a 5% adjustment for inflation plus an amount to begin the new community colleges. An appropriation of \$126-128 million would be required for an improvement budget – one that would raise Tennessee up to the Southeastern states' average. This would require a major tax increase to fund.

The THEC staff conducted a cost study using 1969-70 actual costs incurred at the institutions. The data from this cost study were used to develop higher education's funding request for the 1971-72 budget year.

A description of the formula for operating budgets for Tennessee public higher education was attached to the minutes of the meeting:

The area of Instruction and Departmental Research alone comprises 55-60% of an institution's unrestricted educational and general expenditures; therefore, our efforts were

concentrated in developing the formula in this area. Basis for the formula in this area came from the Fall 1969 Instructional Costs Study in which we accumulated cost per student credit hour for each institution using standardized academic areas (33) and course levels (7) for the following areas of instructional expenditures: (a) Faculty Salaries, (b) Clerical and Supporting Salaries, (c) Supplies and Other Expenses, and (d) Equipment. Actual expenditures were also collected for Libraries, Maintenance and Operation of Physical Plant, General Administration, General Institutional Expenses, and Student Services. A formula was developed for each of these expenditure areas. (THEC Minutes, October 10, 1970)

Assumptions and areas for considerations for the 1971-72 budget, using this formula, were also presented in the attachment to the minutes:

1. All institutions are to be funded at the same level for similar programs.
2. The income side of the formula remained unbalanced because of the differences in tuition structures of the TBR schools and UT institutions.
3. An increase of 10.4% was added to the 1969-70 expenditure-level to develop a formula for a continuation budget. New programs were to be budgeted separately and evaluated on the basis of institutions' projections of excess costs for the new programs over five years.
4. Library expenditures were calculated for each student credit hour by level, i.e, lower level – freshman and sophomore; upper level – junior and senior; master's level; doctoral level; law; remedial education; and continuing education.
5. Library deficiencies were determined and targeted for elimination over ten years.
6. The formula base for Maintenance and Operations of Plant was calculated by using a per-square-foot cost for educational and general space.

7. General administration, general institutional, and student services were combined and budgeted at \$221 for the first 3,000 headcount students, \$199 for the next 3,500 headcount students, and \$188 for all headcount students above 6,500.
8. Organized educational activities, i.e., athletics, were considered non-formula and were funded at no more than \$150,000 in institutions where they are not self-supporting. This did not include UT-Knoxville or Memphis State.
9. Other non-formula costs included budgeted research, extension and public service, staff benefits, sponsored research, and other sponsored programs.
10. Provisions were added to the budget for student aid in relation to the percentage of an institution's student body from low-income families (\$5,000 or less). For the 1970-71 budget, \$70 per low-income student was provided.

Dr. Jerry Rust reported that most of the institutions agreed that the formula was good and especially the expenditure part of it; however, several commission members expressed concern about some components of the formula. Dr. Walter Armstrong inquired if it would not be impossible to make an across-the-board rate per student credit hour given that UT-Knoxville's cost per student is less than any other institution. The cheaper cost at UT-Knoxville was due to large class sections and the use of many graduate teaching assistants, something that was not available to many of the other institutions, especially the community colleges. The formula, however, was designed to determine "what the cost of a program should be," and it was assumed that this would "cause other schools to analyze their programs to determine why some are more expensive and others cheaper" (THEC Minutes, October 10, 1970). Folger stated that the "average gives UT more money at the lower division level than it does to the community colleges" and "as a result, the community colleges are forced to reconsider starting new

expensive programs” (THEC Minutes, October 10, 1970). Additionally, Folger acknowledged, “where differences in programs are justifiable, adjustments can be made in the formula” (THEC Minutes, October 10, 1970). Interestingly, these same concerns were the basis for much negotiation and modification to the formula during most of the 1970s and well into the 1980s.

Institutions’ Response

The institutions’ reactions were mainly positive to the new formula for determining higher education’s needs and distributing the state funds on a more equitable basis. Ramer comments that he did not recall any opposition to the formula:

There may have been nit-picking about the elements of the formula but the concept of a formula overall was, as I recall, pretty well accepted...it was a equitable system of distribution of state funds. So this was a real good step forward. (personal communication, August 20, 2003)

Powers did not recall opposition, but he did recall some resistance and some distrust.

According to Powers, “It was new and we didn’t know whether we could trust it or not (personal communication, August 22, 2003). Powers stated, “It may not be true, ...but I suspect that some of those that had been real successful still continued to do their lobbying even after THEC came up with a so-called formula” (personal communication, August 22, 2003). Johnson confirmed that negotiations with legislators did continue after the formula was developed (personal communication, October 22, 2003). Johnson stated, “You can’t cut that off but...one of the things we tried to get legislators to understand is that there has got to be equity in this process; there has got to be acknowledgement of programmatic differences” (personal communication, October 22, 2003).

Folger agreed “there was not much resistance to having a formula” (personal communication, August 21, 2003). However, he noted, “There was concern that the formula

didn't do for *my* institution what it should, and it was doing too much for somebody else (personal communication, August 21, 2003).” Institutions that were particularly concerned were the community colleges because they were growing rapidly and felt the new formula did not put enough funding into new programs. However, Folger commented that, “Generally, people felt it was better than the old political logroll where you had to have more political influence to get [funding]” (personal communication, August 21, 2003). The formula considered the factors that most people thought funding should be based on – enrollment, programs, and the needs of the institutions.

Government's Involvement – Executive Branch

Could the new formula be funded? Was it livable? What would be the long-term impact? These were the questions that most concerned the Governor's administrative staff (G. Adams, personal communication, September 12, 2003). After the creation of THEC, the Department of Finance and Administration's involvement in higher education funding became less and less except, according to Adams, “when it came to the final development of the request from higher education and what the Governor would recommend. Then I would be involved – fit the pieces and parts together and stay within the availability” (personal communication, September 12, 2003). However, initially, Adams remembers being a sounding board,

The initiative was with them [THEC staff]...that is what they were hired for and they were the experts in higher education. They had the background and they came up with the various parts of it, and like I say, we reacted to it. Probably from my perspective, my reaction would be more of...well is it affordable? Is it a standard that can be fit within the current funding resources and what kind of future demand would it make?...once you go with the formula and it's...public it is more of a process to adjust the formula or revise it than it was before, where it was strictly in-house. (personal communication, September 12, 2003)

The Formula Concept

From the beginning, the formula focused on allocating equal support for all institutions conducting the same type of program. The formula has evolved to include recognition of institutional differences. The formula applies only to expenditures and revenues related to unrestricted educational and general (E & G) monies, and it does not represent the specific budgets of the institutions. Institutions and their governing boards retained the responsibility of management of actual appropriations.

1979-84 Master Plan Formula Goals

The 1979-84 Master Plan for higher education identified three major issues related to finance: (a) despite significant increases in state appropriations, Tennessee's per capita appropriation remained 42nd in the nation and the lowest of the SREB states; (b) Tennessee faculty salaries were among the lowest in the SREB states; and (c) although there are advantages to using historical costs and student enrollments in a funding formula, this approach should be reassessed in light of the changing character of higher education over the planning period. Recommendations included increasing state funding to at least the SREB regional measures over five years and upgrading faculty salaries to at least the average of the SREB faculty salary levels. Seven recommendations were identified for the formula and were adopted as THEC's policy to guide formula development:

1. The formula should adequately but reasonably reflect the funding needs of public higher education institutions.
2. The formula must provide equitable distribution of available resources.
3. Institutions should retain maximum management flexibility in the use of funds and should not be penalized for efficient use of resources.

4. The formula should provide recognition of differences in institutional role and mission.
5. The formula should be compatible with statewide goals such as access, desegregation, quality, and evaluation of performance.
6. The formula should be as simple as possible given the complex nature of the institutions to be funded.
7. The formula should be based upon reliable information and data systems that assure comparability among institutions. (THEC, 1982).

This policy remained the bedrock for adjustments to the funding formula throughout the 1980s and 1990s and continues to provide guidance for formula adjustments. The Tennessee Comptroller of the Treasury's program evaluation of THEC in 1985 reported that

Auditors compared the fiscal year 1984-85 appropriations formula to the seven goals set forth in statutes and the 1979-84 Master Plan and concluded that, for the most part, the Tennessee Higher Education Commission has developed and applied its appropriations formula in such a way that it achieves those goals. (p.13)

Modifications to the Formula

Looking back over the history of the formula, three major revisions to the basic operating funds formula occurred in 1980-81, 1985-86, and 1994-95 budget years: (a) initiation of performance funding and implementation of an enrollment range to improve quality occurred with the 1980-81 formula; (b) national peer institutions data and faculty/student ratios replaced the cost study data in budget year 1985-86; and (c) salaries of SREB institutions replaced national peer groups and student/faculty ratios were increased to reflect greater efficiency and use of technology in instruction in budget year 1994-95; phase two in 1995-96 refined the SREB peers to 10 specific peers for each institution or group of institutions. These major modifications were for the most part linked to efforts to provide for quality improvements and to encourage institutions to focus on their mission (Albright, personal communication, September 2, 2003).

The original formula was almost entirely enrollment driven; institutions had no incentive to raise admissions standards – why should they if they were going to face financial loss as a result?

Speaking from a more global standpoint, Albright pointed out, “The primary reason to change a funding formula is to try to emphasize what the state policies are or to be sure the formula is aligned with the state policy” (personal communication, September 2, 2003).

However, Albright acknowledged that the process for year-to-year changes was necessary for institutions to have an opportunity to make recommendations about components of the formula that needed adjusting. THEC initiated a formula review committee or advisory committee of six or eight people each year. Albright explained the process:

...This is our formula, let’s go through it and talk about what needs to be changed and the parts we like of it.... Jim Vaden served on that task force for a number of years from the Board of Regents system. Typically there would be a person from the community colleges and a person from one of the universities. Gene Smith, who used to be vice president of University of Memphis, served for a number of years. And, also with the UT system you would have Joe Johnson who was president of the UT system, as well as someone from their campus...Eli Fly who was vice president for business and finance would be on those committees. So it would be a fairly small committee that would be involved in that particular process. Every institution was contacted and given an opportunity to make suggestions, to let them know that the process was starting, make suggestions for changes and all of those were reviewed carefully by the task force. In addition, each year each institution had an opportunity to meet with us one-on-one to review the funding formula and its effect on the individual colleges. So, that was the process and the process was very important. (personal communication, September 2, 2003)

A review of internal documents and minutes of the Tennessee Higher Education Commission meetings confirm that this process was used through the early 1990s. However, after the 1994 revision to the peer institutions, and with the departure of Albright, the process is not as well documented. Internal documents reveal that the one-on-one budget hearings with the institutional representatives did continue up through the budget cycle for 2004-2005. The program evaluation of THEC conducted by the Division of State Audit, reported, “The formula

has been revised substantially since its initial development in 1970 and continues to be evaluated by a formula revision committee composed of commission staff and representatives from the institutions and governing boards” (State of Tennessee, 1985, p. 15).

Modifications – The Expenditure Side

In the early years of the formula, regular *tweaking* of the components was a necessary part of the process. Concerns raised by Commission members at the October 10, 1970, meeting soon became the concerns of the institutions as the formula was implemented. Folger spoke of the modifications in terms of “people [being] able to make the case that some particular factor or other wasn’t included or wasn’t properly weighted in the funding recommendations (personal communication, August 21, 2003). Folger contributed the majority of the early modifications to the approach used by THEC:

A lot of the changes were because we adopted the Texas approach, where you define all of the different program areas and you set up different costs for each program area. You build your cost recommendations on the average cost across the various institutions because you find there are widely different amounts spent on freshman English, for example. Some people said the average funding hurt institutions that were trying to do a better job. Some people said the formula funds were too low to provide a quality program in for example Nursing. Others would say it gave too much to nursing and not enough to history, for example. So you got a lot of push to abandon the formula approach. Those modifications were generally made based on people’s persuading us that a change was justified....So you had complaints about the details of the formula and almost no serious complaints about the idea of a formula. (personal communication, August 21, 2003)

In addition to recognizing the various inequities and modifying the formula to address these, modifications occurred to address the concerns of state officials that the formula generated an amount of money that they could not afford (Fly, personal communication, October 22, 2003).

Raymond Pipkin, former Associate Vice President for Business and Finance at the University of Memphis, prepared a listing of the changes that had occurred to the formula from its inception up through 1996 (Pipkin, personal communication, July 30, 2003). The majority of the changes identified by Pipkin were taken from the minutes of Tennessee Higher Education Commission meetings.

Pipkin documented 48 changes that had occurred to the instruction component: 11 were changes to cost data; four changes occurred to the classification of credit hours; three were changes to the student/faculty ratio; 10 changes addressed enrollment ranges; three changes involved graduate teaching assistants; eight changes occurred to the average faculty salaries; one change occurred to address term fluctuation factors; three changes occurred to the equipment, clerical support, and supplies category; and five changes occurred to the summer and special term factors.

The instructional component of the formula represents the greatest dollars generated by the formula; therefore, revisions to this component generally significantly affected formula dollars – both dollars requested and the distribution of those dollars among the institutions. As discussed earlier, major revisions occurred in the budget year 1985-86, when the peer concept was initiated, and again in budget years 1994-94 and 1995-96, when new SREB peers were adopted. Revisions to incorporate peer institutions data are discussed in detail under “Incorporating Peer Institutions into the Formula.” The fiscal impact of the modification to the enrollment range factor that occurred with the 1980-81 budget was of a magnitude that requires it be discussed in detail also (see p. 103). Other, less significant, changes included adding a component for continuing education units in fiscal year 1976 and moving from HEGIS categories to Classification of Institutional Programs (CIP) categories in fiscal year 1996. The

change to CIP categories was for administrative convenience and had no fiscal impact on the formula (THEC, August 12, 1994, p. 3).

It was not until the 1985-86 budget year that the issue of graduate assistants and their impact on the dollars generated by the formula was addressed. With the change to using peer comparison data rather than cost study data to drive the instructional component of the formula, the number of faculty positions generated by the formula was adjusted to account for the number of graduate assistants who teach, and a separate, lower salary level was assigned for graduate assistants. A factor that paralleled the graduate level student credit hour production was assigned to the universities: 12% for UTK, 8% for UM, and 5% for all other universities. This was changed in 1992 to remove APSU, TSU, UTC, and UTM. UTK remained at 12%, MSU remained at 8% and ETSU, MTSU, and TTU continued to have a 5% adjustment for graduate assistants who teach.

Pipkin's chronology identified 18 changes that had occurred to the academic support component, 12 of which related to the library and six to other academic support factors. The major changes involving peer institutions comparisons were projected into the calculation for library expenditures in 1987-88 and again in 1995-96. Other adjustments were aimed primarily at reducing the deficiency in library volumes identified during the initial formula development, although some bouncing back and forth of costs related to academic deans and computer services between instruction and academic support did occur.

The student services component had nine changes. The most significant change occurred in the 1974-75 budget year when the student services costs were separated from the general administration and general institutional component and became a separate component of the formula. Remedial education was included in the student services component at this time;

however, a new category for developmental studies was added for community colleges and TSU in the 1979-80 budget year. In the 1985-86 budget year the formula was revised to approve “remediation,” and students requiring remedial and developmental (R&D) assistance were divided into two groups: two-year institutions received funding for both groups; however, the universities (except UTK, MSU, and TTU) received funding for only Group 1.

Funding for R&D was eliminated as a separate category in the 1994-95 budget year and funding was provided at the same rate as degree credit programs. This change was effected as a part of the major formula revision that occurred in the 1994-94 budget year and, interestingly, created as much of a stir among the presidents, especially the presidents of the two-year institutions, as did the proposed adjustment to student fees (Memorandums from College Presidents to THEC, various dates in July and August 1993). The TBR had approved a cost containment plan for R&D programs in March 1993 and felt their plan should be allowed to work before there were any changes in this area (Rhoda memorandum to TBR Board Members, August 20, 1993; Roaden memorandum to Formula Funding Task Force, August 27, 1993). Although the Commission members approved this formula modification, the minutes reflect that one member expressed concern that “we would end up with a two-tier system of education and he was reluctant to deter a student from going to a four-year institution because he or she could not get adequate attention in remedial education” (Minutes to Called Meeting of the THEC, September 10, 1993).

Intercollegiate athletics was moved to student services in the 1975-76 budget year but eliminated from this category in the 1983-84 budget year. Intercollegiate athletics are no longer a part of the formula; however, costs incurred continue to be accumulated in the student services

functional area for funding and reporting purposes (Simmons, personal communication, October 9, 2003).

Seventeen changes occurred to the formula for maintenance and operations (M&O) of physical plant. The majority of the changes were related to utilities; however, an intensity factor was added in budget year 1980-81 to accommodate the year-round usage of educational and general space and to recognize the additional maintenance required for aging facilities. In the 1977-78 budget year utilities were separated from other M&O costs and funded on an actual usage basis. In fiscal year 1982 an adjustment was made to encourage and recognize energy conservation measures implemented by the campuses; the formula was modified to continue funding 50% of the energy savings achieved from projects funded from operating funds. Additionally, institutions were encouraged to “*mothball* facilities which are underutilized until such a time as they are truly needed” (THEC, 1982-83, p. 8). The modification provided that the square footage would continue to be funded, and these dollars plus any utilities savings would be available for use in other programs. In fiscal year 1989 the Commission implemented a prior approval policy for rental space costing in excess of \$10,000 annually if funding for such space would be requested through the appropriations formula.

Research, public service, and institutional support had a similar number of changes. Starting in budget year 1976, dollars were provided to recognize the research missions of the universities. These funds were shared by the universities on a pro-rata basis and the dollars were increased in the 1977-78 and 1979-80 budget years. In the 1981 budget year, the public service missions of the institutions were encouraged with rates set at \$50,000 for two-year institutions with up to 2,500 FTE and \$75,000 for two-year institutions above 2,500 FTE. The regional universities were provided funding at 0.5% of E&G expenditures; UM was set at 2% of E&G. In

fiscal year 1984, this was changed to allow all institutions to receive \$35,000 plus a percentage of E&G expenditures: 3% for UM, 0.25% for UTK, and 1% for all other institutions. In fiscal year 1984 the formula was modified to include a base rate plus a percentage of total expenditures for institutional support recognizing the fixed plus marginal cost components of this function. A component to address campus security was added to institutional support in fiscal year 1992.

Non-formula components such as staff benefits, student aid, and special allocations have been addressed over the years. A funding component to address desegregation was added for the fiscal year 1978 budget. An equipment supplement was added in fiscal year 1981 to recognize “the erosion of operating budgets as a result of declines in real dollar support and inflation” (THEC, 1982-83, p. 10). The supplement was 2% of each institution’s equipment investment as shown on their financial reports for FY1980-81.

Revenue Deductions

Since its inception, the Tennessee formula has identified 100% of funds required for operations and then reduced that amount by other revenue sources to arrive at the state support needed to fully fund the formula. The major revenue deduction component of the formula, maintenance fees, has been adjusted regularly – 1972, 1974, 1976, 1978, 1979, 1981, 1982, 1984, 1986, 1988 (3 modifications), and 1995. Modifications range from using a revenue averaging method to using actual revenue collections to using a percentage defined as a percentage of the total identified need with the state providing a stated percentage and the remaining percentage to be collected in fees. In 1994 the ratio of student fees to appropriations was 40% for universities, 35% for two-year institutions, and 15% for medicine, dentistry, veterinary medicine and Area Vocational Technical Schools.

Major Modifications – FY1980-81

In its 1979-84 master plan, THEC committed to re-evaluating the formula prior to the 1979-80 appropriation cycle (THEC, 1979). This did not happen until the 1980-81 appropriation cycle, perhaps due to the extensive modifications that were being proposed and the necessity of involving numerous persons in the revision process. A memorandum from Wayne Brown to the Commission members dated May 12, 1978, stated, “The THEC staff...recommends that a comprehensive review of the formula be undertaken...with a view toward major revisions of the existing formula allocation methods for FY1980-81.” The Commission members approved the staff's proposal at their May 22, 1978, meeting (Memorandum from Brown to the Formula Evaluation Committee Members, June 13, 1978). Alternative funding approaches were to be considered (Memorandum from Albright to Formula Evaluation Committee members, November 15, 1978).

Beginning in FY1980-81, THEC introduced several major new factors into the funding formula. The formula emphasis moved from funding enrollments to funding quality.

Modifications included:

1. Recognition of Marginal Costs.
2. Adjustments for Southern Region Averages.
3. Equipment Replacement Allowance.
4. Recognition of Instructional Evaluation.
5. Intensity and Age Factors for Maintenance and Operation of Physical Plants.
6. Enrollment Range Adjustment in Certain Cases of Planned Reduced Enrollment to Improve Quality. (THEC, 1982)

Three of the six modifications were so intertwined as to appear almost as one: recognition of marginal costs, adjustments for southern region averages, and the enrollment range adjustment. The equipment replacement allowance and the intensity and age factors added to M&O of physical plant are discussed above under minor formula modifications. Instructional evaluation, commonly referred to as *performance funding*, was an innovative move for Tennessee, and for the nation. Because of the tremendous impact of performance funding nationally, Tennessee's initiative is discussed separately on page 122.

Marginal Costs, SREB Adjustment, and Enrollment Range Adjustment to Promote Quality

Enrollments in the initial formula were established on projected student credit hours (SCH), and an enrollment reserve account was established for those institutions outside of their projected enrollments. Institutions that exceeded their projected enrollment would receive additional funding and institutions that did not meet their projected enrollment would pay funds into the reserve. Enrollment growth, especially within the community colleges, significantly exceeded the projected enrollment ranges very early. The October 25, 1974, THEC minutes reflected that

the enrollment reserve was set up two years ago... This fall about \$366,000 will be paid in by institutions not meeting their projections. An amount of \$200,000 is already in the reserve... Eight institutions exceeded their projections, therefore requiring an additional \$2,024,000 to be paid out. (THEC minutes, October 25, 1974)

Funding enrollments on projected or actual presented two problems: (a) enrollment growth became the paramount goal since institutions gained or lost funds for each individual student, and (b) the marginal cost of adding one additional student was not recognized. A national trend of declining enrollments at universities, and a decline in real dollar support from

state funding, led THEC members to review and modify the per-student funding method used in the early 1970s. John Folger stated,

About the time I was leaving the THEC, some of the people in higher education were saying, you've got an enrollment driven formula and you're increasing the appropriations based on increasing enrollment; but, the reality is that you are funding these at the average per-student cost but the actual cost here is marginal cost because you may be able to add more students to classes that you already have. So it gives you some possible money that you can use for improvements as long as you are growing. But, it looked like enrollments were going to level off in the mid-1970s, and sure enough enrollments leveled off. So the next funding change that was being pushed was the idea that we should provide funding for improvement and bonuses for doing better. (Interview with Folger)

Minutes of the Tennessee Higher Education Commission meeting on November 29, 1976, reported that the members adopted a motion "that the Commission have the intention of adopting a two-year average annual enrollment growth for projecting appropriations recommendations..." A *cushion* policy was adopted at the same time to address those situations when lower appropriations might result in the current year than was recommended the previous year. The cushion was an amount equal to one-half the difference between the actual appropriation for the current year and the basic formula calculation for the next year.

Beginning with the 1980-81 formula, THEC incorporated into the formula enrollment ranges that recognized margin costs (THEC, FY1982-83). THEC acknowledged that, "the new factor with the greatest single fiscal impact on the formula is that of recognizing marginal costs through enrollment ranges (THEC, 1982)." Actual enrollments over the prior three years were used to establish the initial enrollment range for each institution. No additional funding would be provided nor would a reduction in funding occur unless an institution's actual enrollment fell outside of its enrollment range, and then only if the institution was below its range for two consecutive years. Upward adjustments, for enrollment increases, would be made by adjusting the institution's enrollment base and establishing a new range (Brown memo, September 24,

1979). The enrollment range was the base enrollment plus-or-minus 2% or 75 FTE students, whichever was greater. The objective was to discourage “extraordinary recruiting efforts on the part of institutions because a few additional students [would] have no impact upon their appropriations (THEC, 1982).”

Furthermore, THEC included in the 1980-81 formula a modification, applicable to subsequent years, so that enrollment growth would not be recognized unless state funding or other revenue sources were sufficient to support the growth and maintain quality. Institutions that were below SREB averages on support measures were encouraged to negotiate an adjustment to their enrollment range that would allow for planned reduction of enrollment to improve quality. Related to this was the SREB adjustment to achieve SREB funding levels at the universities over a five-year period. The 1982-83 appropriations recommendation included an adjustment equal to one-third of the funding deficit identified by THEC for FY1980-81. A review of THEC formula brochures for FY1983-84 and FY1984-85 verified that this funding adjustment continued until the peer institution model was implemented in FY1985-86.

Changes of this magnitude affected different institutions in different ways but were especially detrimental to the two-year institutions. A memorandum from Dr. Wayne Brown, who was executive director of THEC at that time, to all of the institutional presidents and the chancellors of the two systems addressed concerns that had been expressed on the proposed formula adjustments (Brown memo dated September 24, 1979). Brown’s response addressed two areas that appeared to generate the greatest concerns – marginal costs and enrollment range adjustments.

Relative to the marginal cost and enrollment range adjustments, THEC was not favorable toward adjusting the proposed 75 FTE margin for smaller institutions, nor were they inclined to

adjust the enrollment range on an annual rather than a two-year basis. THEC stated that a range of the greater of plus-or-minus 2% or 75 FTE students provided sufficient protection to the small institutions for stability of funding when minor fluctuations in the number of students occurred. THEC agreed to review the annual versus two-year adjustment for future years. Additionally, THEC did not support an exception for new programs that impacted enrollments, stating it would not be fair to the other institutions if enrollment exceptions were allowed for new programs.

The institutions' concerns and dissatisfactions were expressed once again when THEC came under the scrutiny of the state legislature in 1984 (State of Tennessee, 1985). In August 1984 the Division of State Audit surveyed 23 institutions (all institutions under formula funding at that time) for the legislature's program evaluation of THEC and 22 of those institutions responded. The report presented to the legislature in 1985 showed that while 65% of the institutions agreed the formula was "generally fair and equitable," (p. 15) two areas of concern were expressed by a significant portion of the institutions; enrollment range and base methodology was one of those areas. The evaluation reported that 45% of the institutions indicated that the enrollment range and base methodology hindered the formula's equity; a combination of the range and the two-year grace period allowed, for any given year, some institutions to receive funding for students they did not have while others were not funded for students they had enrolled.

Additionally, the report expressed concern that the Commission's policy of not recognizing enrollment growth for funding unless it believed there was adequate funding to support quality contributed to funding inequities. This was particularly true for the two-year institutions whose mission specified an open admissions policy. The report's major conclusions included a concern that, "Such deficiencies, if present, could result in inadequate appropriations

for certain institutions and, thus, hinder their ability to provide a quality education for students” (p. 1).

The auditors reported that THEC had acknowledged in its formula brochure for 1984-85 that “several factors including job skills training needs, population growth and redistribution, and enrollment reductions at universities indicated an acute need to adjust upward the enrollment ranges and bases for some two-year institutions” (1984-85). Nine two-year institutions received upward adjustments of their enrollment ranges in 1984-85 (State of Tennessee, 1985, p. 15).

A review of the FY1984-85 budgetary enrollment bases and enrollment ranges prepared by THEC revealed that all 14 community colleges had actual fall 1982 enrollments in excess of the FY1984-85 budgetary enrollment base, and nine exceeded the high end of their enrollment range for 1984-85 (THEC Academic Formula Requests for FY1984-85 – Phase II Instructions, Table 2, August 29, 1983). Five of the universities had actual fall 1982 enrollments that exceeded their FY1984-85 budgetary enrollment base. None of the universities’ actual fall 1982 enrollments exceeded the high end of their FY1984-85 enrollment range. A THEC internal document, *Enrollment Projections for Formula Funding Purposes, FY1982-83 and Beyond*, indicated that UTK, TSU, and APSU had negotiated enrollment declines to improve quality. These institutions had actual fall 1982 enrollments that were near the low end of their FY1984-85 enrollment range; UTK exceeded their low end by 376 FTE, APSU exceeded their low end by 141 FTE, and TSU exceeded their low end by 3 FTE. Minutes of the Tennessee Higher Education Commission meeting on November 7, 1984, reported that the funding bases of those institutions that were over their current base were adjusted to the nearest 25 above their actual fall enrollment.

Incorporating Peer Institutions into the Formula

Two of the three major modifications to the funding formula involved peer institutions. According to Albright, there were several reasons for the initial change to peer institutions in 1985, but two reasons were primary:

The first formula was simply based upon the costs within Tennessee and when you do that, and you are working with a poor state, what you are doing is you are funding what is rather than addressing what the needs are...by looking at peer institutions, you can see what competitors of Tennessee institutions are spending. So, that was one reason to look at peer institutions. The second reason to look at peer institutions was to emphasize mission, because Middle Tennessee is different from Tennessee Tech, which is different from UT-Knoxville. So [it was] just a thrust that Tennessee would be stronger, have a stronger higher education system, if there was emphasis on mission. (personal communication, September 2, 2003)

Folger stated,

A *major flaw* in the formula was identified in that you are basing these formula rates on cost studies and you are using the average costs, how can you ever improve yourself if you are just using the average. So, you need to have an improvement goal...You see, we started off just funding the average cost per credit hour, and as I found out, that is made up of a lot of factors such as class size and average salaries. But the reality is that you pay people and salary is a major portion of your total budget; and, therefore, if we are going to attract and retain good faculty, we need to be paying at a rate which meets market. Market is defined in part by those peers. (personal communication, August 21, 2003)

When asked about the reason for moving to peer group comparisons, Roaden stated,

I think that was a good and positive move that Tennessee made...The formula was looking at actually what it takes to educate a student in a particular discipline at a particular level and we set a cost figure for that and simply multiplied it out times the number of students that fit into each of those categories. The question arose, well, however is this accomplishing the fact that every institution has some uniqueness – they are very different. That is a term we used often when I was at Tennessee Tech – we always thought we were different. (personal communication, August 21, 2003)

Brown was Executive Director of THEC at the time the peer group concept was implemented and he also remembers the change as an effort to improve quality.

It occurred to me that if we had kept only funding through the cost study we were grinding ourselves down in terms of the total appropriated dollar per student in Tennessee

compared to the Carolinas or Florida. Yes, it was internally consistent and it was internally fair, but we were only comparing ourselves with ourselves so we weren't growing when some other states during that period of time were making tremendous investments.... We were not gaining ground on these gross measures of higher education such as dollars per student compared to other states and so we had to do something. And so we were trying first to keep the fairness across the state that is inherent in the cost studies but then we would use maybe... but I am saying that it was, in effect, trying to elevate the total dollar but still be fair and recognize that certain disciplines cost more than others and undergraduate tended to cost less than graduate, and that kind of stuff. (personal communication, August 22, 2003)

Although the move to peer group comparisons primarily served to address issues of quality and mission, it indirectly removed from the formula the factors that were creating inequitable distributions between the two-year schools and the universities. The SREB adjustment applicable to universities and the funding freeze on enrollment growth were both removed with the implementation of the 1985-86 modified formula (Albright memorandum to Formula Evaluation Committee, August 2, 1984). The impact of graduate assistants was also removed (see discussion on page 98).

Powers commented,

I think part of that peer institutions begin to develop when some of the campuses begin to look at how they were calculating how much does it cost to teach English at your institution and it varied so much from place to place. For instance, it cost more to teach English at a community college than it does at a university because freshman English at a university is taught by teaching assistants usually. At the community college, you might have a full professor that is teaching. (personal communication, August 22, 2003)

Fly commented,

Well, the way the formula was put together it was a death spiral. We were using our own information and eventually you would be just down to nothing because you are using previous data and each year that the formula was not fully funded it lowered the asking price....it was introspective – was introspective and internal in the state and there was a need to go to some kind of external comparison. (personal communication, October 22, 2003).

National Peer Groups – 1985-86 Major Modification

THEC's formula brochure for 1985-86 described the instruction and academic support component as follows:

The formula approach for instruction recommends funds based upon faculty salaries and student/faculty ratios at comparable institutions... Ten "peer" institutions were selected for Tennessee by institutional groups based upon institution size, program mix, and other factors. Average faculty salaries are computed for the peer institutions using HEGIS salary data... The funding calculation divides the projected student credit hour production by student/staff ratios to determine the number of instructional personnel required, and this number is then multiplied by the average salary factor of peer institutions.

This appears to be a simple enough methodology; however, arriving at this position was not without challenges. The process started early in 1983 when a Long Range Academic Formula Advisory Committee was formed (Brown memorandum to THEC Members, July 24, 1984). The makeup of the committee consisted of staff from THEC, governing boards, and institutions. The committee's charge was to focus "on fundamental changes which would result in a more readily understood formula and one which is more sensitive to funding goals (vs. historical costs) and qualitative considerations" (Brown memorandum to THEC Members, July 24, 1984).

In 1983 the Office of Institutional Research at UTK developed a statistical methodology for identifying peer institutions for UTK. Seventy-one universities were compared to UTK on several variables. Due to the size of the population, the variables were grouped into four factors: size, program diversity, quality, and the external or state environment supporting higher education. The UTK model had a national focus and appeared to provide a jumping-off place for the committee; however, the peer selection process went through several refinements before the final peer groups were agreed upon (Albright memorandums to committee members, July 3,

1984, July 23, 1984, August 2, 1984). Ultimately, the criteria for selecting peer institutions for each of the Tennessee institutions (or groups of institutions) were based primarily on percentage of degrees in various areas although enrollments, tuition and fee charges, and state and local appropriations, and for universities, admission scores for entering freshman, were also considered (Albright memorandum to members of the Long Range Academic Formula Advisory Committee, July 23, 1984). Emphasis was given to degrees awarded in engineering, business, and education. The rationale for emphasizing engineering and business was higher salaries nationally; education was included because of the significant percentage of degrees in education awarded by Tennessee institutions.

In July 1984 a preliminary listing of peer institutions was provided to the executive officers of both systems and they were requested to coordinate a review with their individual institutions (Brown memorandum to Boling and Nicks, July 24, 1984). Each system was to pare the list of 15 possible peers to 10. A regional emphasis was to be maintained with no more than two institutions from any one state. Institutions located in Alaska, California, Hawaii, New York, and Texas had been excluded from all lists, although Brown emphasized the lists were still representative of both wealthy and relatively poor states. Both systems were requested to include both wealthy and relatively poor states on their lists of 10. The peer listings for two-year institutions were provided both by size (small, medium, and large) and as a single listing although the THEC staff felt there was no justification for different salaries based strictly on institutional size. All regional universities, including TTU and UTC and UTM, were grouped together and provided one listing of possible peers. UTK and UM were provided separate listings of possible peers from which to select.

The ultimate outcome of the first peer selection process was a unique group of 10 peers for UTK and a unique group of 10 for UM; the two-year institutions shared a group of 10 regardless of the institution's size; and the regional universities as well as UTC and UTM shared a group of 10 peers. Each group of 10 included some national peers. A salary supplement for TTU was provided in recognition of their high percentage of engineering faculty. A similar supplement was provided for UM's law school.

This first group of peers remained in place for almost 10 years. However, as state resources to support higher education declined, those responsible for the allocation of resources began to question the appropriateness of national peers. Albright recalled,

There were some concerns expressed that the formula was generating too much dollars and we shouldn't be including institutions that were aspirational, too aspirational...It was suggested that we go back to the southern region, but actually it didn't make much difference going back, financially going back...it was a perception that the peers were inappropriate, as I recall. (personal communication, September 2, 2002)

Folger's recollection was similar to Albright's:

The big tension has always been that the formula generates more money than Tennessee will have available. The formula criteria are seen as too costly by those who have to fund them – all those esoteric things those professors do that make the formula request more than we are going to have available! (personal communication, August 21, 2003)

Adams provided insight into the legislative concerns with the introduction of peer institutions:

I think I remember Mr. Bragg being supportive of it, and I think Senator Dunavant from Shelby County, who was very interested in Memphis State, was generally supportive of it as well. It was later that it became an issue with funding and where the legislative reaction, where it was negative [was] if Tennessee was trying to compare with institutions that we really weren't comparable to – were they realistic comparisons?...But basically in the legislature it still came down to are all of the institutions being treated equitably. (personal communication, September 12, 2003)

1994-95 Formula Modifications and Move to SREB Peers

The move to SREB Peer Groups in 1994-95 was a part of the major formula revision resulting from a legislative mandate for the THEC to “undertake a detailed review and analysis of the funding formula (Senate Bill 2820; House Bill 2760, Amendment).” The mandate specified that all significant factors in the formula should be reviewed and alternative approaches considered for each one. Monthly progress reports were to be provided to the chairmen of the house and senate education committees and to the full committees or subcommittees if so directed. The formula revision actually crossed two years with modifications made to the formula in FY1994-95 and FY1995-96. The process began with a special task force consisting of representatives of the three governing boards: THEC, TBR, and UT system. Two public hearings were held on July 12, 1993 and July 29, 1993; a special session was held on August 5, 1993, with presidents and chancellors and area school directors; a special session with members of the General Assembly was held on August 11, 1993; and, other one-on-one sessions took place between Commission members and members of the General Assembly and the Administration (Roaden memorandum to Formula Funding Task Force, August 27, 1993). Five recommendations for modifying the formula for FY1994-95 were proposed by the special task force and approved by the Commission members at a special called meeting on September 10, 1993:

1. Increase student/faculty ratios for each discipline and level, except health sciences, by 5% to reflect greater use of technology in instruction (academic and area vocational school formulas). Estimated Dollar Effect: (\$15 million)
2. Change the fee ratio for Tennessee residents to 40% of appropriations for universities, 35% for two-year institutions, and 15% for medicine, dentistry, veterinary medicine, and area vocational technical schools. Estimated Dollar Effect: \$30 million

3. Increase out-of-state fees to the same level as other southern states. The larger increases would be phased in over a five-year period. Estimated Dollar Effect: (\$3.5 million)
4. Use Carnegie Classification categories, SREB region only, for faculty salaries. Use a combined category for APSU, ETSU, MTSU, TSU, TTU, UT Chattanooga and UT Martin. For two-year institutions, use SREB categories. Estimated Dollar Effect: (\$2 million)
5. Fund remedial and developmental education programs at the same rate as degree credit programs. Estimated Dollar Effect: (\$4 million)

Combined items 1 and 4 have the greatest impact upon the dollars generated by the formula. Student credit hours (FTEs) divided by the student/faculty ratios produces the number of faculty required by discipline and level, and the total number of faculty required multiplied by the average faculty salaries produces 73% of the regular term instructional needs. The instruction component of the formula is approximately 60% to 62% of the total formula-identified needs of each institution. Items 2 and 3 have the greatest impact on how much state appropriations are required for 100% funding of the formula. Both of these items are revenue deduction items. Item 5 impacts the FTEs of institutions and, therefore, impacts the calculation of faculty required. Taken as a whole, the effect of the five modifications upon institutional funding was significant, but the greatest impact occurred in the formula-identified needs for instruction. Although all five items concerned the presidents of the institutions, the regional university presidents were especially upset about using Carnegie Classification categories, SREB region only, for faculty salaries. The universities' concerns centered on their missions and the lack of recognition of the individual missions inherent in the proposed peer group change. ETSU was possibly the most vocal about the change:

We do not think the peer classification for East Tennessee State University is appropriate. We request that ETSU be placed in a peer group with institutions that have the significant health science mission...East Tennessee State University's mission has been approved by the Tennessee Board of Regents and the Tennessee Higher Education Commission. This

mission includes the heavy health science emphasis, and for these programs to be successful, better funding is necessary. (Nicks memorandum to Roaden, July 8, 1993)

APSU's president questioned the move to regional peers in view of the fact that faculty recruitment was national in scope, especially recruitment of minority faculty to meet the Stipulation of Settlement criteria (Page letter to Chair Simpkins, Enclosure, August 9, 1993).

The two-year institutions' presidents were not, for the most part, as concerned about the peer group changes since THEC's preliminary calculations indicated their average faculty salaries would increase. However, one community college president expressed,

The principal benefit of using national peer groups is that egregiously high or low institutions can be omitted; that can hardly be done – for political and other reasons – if the smaller SREB base is used. (Consacro memorandum to Roaden, August 3, 1993)

Another community college president was concerned about the long-term impact, although the community colleges would benefit in the current year. She wrote:

We want to aspire to have the best faculty and programs in the nation, not just in the SREB region. If at some point in the future, the SREB average falls significantly below the national average, we could have difficulty attracting and retaining outstanding faculty members. (Hoppe memorandum to Roaden, July 9, 1993)

The TBR iterated the concerns of its institutions' presidents and suggested,

To address mission distinctiveness, the majority of current peers could be retained if each institution were permitted to substitute within the current ten peers an appropriate number of other institutions reflecting its specific mission distinctiveness. This would permit institutions to identify peer institutions with programming emphasis that are similar in type and cost. (Rhoda memoranda to TBR Board Members, August 20, 1993)

Fly confirmed that UT also had concerns about moving to SREB schools only:

First off my feeling was that it should be around the country rather than just SREB. Although SREB is not a bad comparison, particularly at that time when the SREB was funded about as well as any region of the country that you could get a measurement on....The big ten at that time were not funding per student to any extent better than the major schools in the SREB. (personal communication, October 22, 2003)

Roaden recognized the institutions' concerns relative to peer groups at the special called meeting of the Commission on September 10, 1993, and recommended that further review of the peer groups should be "top of the list of items to be addressed right away" (Minutes, p. 3). Roaden acknowledged that, "The Commission has urged diversity and unique missions, and these matters should be included in the selection of peer institutions where comparisons are made" (Minutes, p. 3). In the meanwhile, Steve Adams, State Treasurer, communicated to THEC Chairman Simpkins that given the time constraint the recommendations may be the best effort possible; however, he expressed:

I do not anticipate that the recommended changes will answer those who are dissatisfied with the formula and the budget process. It is my opinion that more has to be done...I think everyone involved is very much interested in adequately funding higher education. But if there is no confidence in the yard stick [sic] used to determine what constitutes equitable and adequate funding, there will continually be problems. (personal communication, July 6, 1993)

A second formula study group was formed in 1994 to review and make additional recommendations for modification of the formula. This was a high-power group in that it represented most of the concerned constituencies: Commission staff, UT staff, TBR staff, Comptroller's staff, Treasurer's staff, and F&A staff. The selection of new peer groups for all of public higher education was the most significant change that came from this study. The legislature had not been pleased with comparing Tennessee schools to national peers and the schools were upset about the 1994 modification to the SREB region as a whole. Nicks remembered,

The legislature, as I remember, had some problems with the national peers, thinking that we should match up with southeastern or southern schools. Truth is, southern schools probably are better funded than the national ones so it was probably a good move to move to the basis of the southern peers! (personal communication, September 2, 2003).

Higley agreed with Nicks' assessment of the situation involving the peers:

I believe [there was] some focus of attention on the issue of Tennessee being a part of the southeast and many of the peers of the institutions being from other dispersed parts of the country – the northeast and the west in particular being parts of the country that have significantly different economic conditions – higher salaries, higher land prices, etc....people from both the legislature and administration at the time had made some comments about that to Dr. Roaden who took it to the Commission possibly, so there was a conscious decision made to select peers from the SREB. (personal communication, July 30, 2003)

Higley commented that he was not sure that restricting the peer institutions to SREB schools was really necessary but since it was at least a perception issue that became the first filter used in the selection of the new peer groups.

As it turned out, the fiscal impact of this proposed change in peer groups was \$23,995,349, or a 3.84% increase in appropriations request over the FY1994-95 request. The proposal included a 4% salary adjustment and an update to library funding rates to reflect the new peer groups.

The Process of Selecting Peer Institutions. The process used by the study group attempted to address the campus presidents' and chancellors desire for a discrete number of peers and a more precise method of selecting the peers. A computer-assisted model was used for the selection of peer institutions. Thirty institutional characteristics were used to compare SREB institutions to the universities in Tennessee, and 24 characteristics were used to compare the two-year institutions. The level of degrees offered, number of programs at the different levels, and SREB and Carnegie Classification of the universities dictated the difference in number of elements used. The initial criteria for selection of potential peers for Tennessee universities were public, state-controlled, four-year institutions in the SREB region and potential peers for the two-year institutions were public, state-controlled two-year (or less) institutions in the SREB region.

Lists of potential peers were produced for each of the universities in Tennessee, and each regional university was requested to select three unique peers from their list. A core group of seven was then selected based on the number of matches with the most Tennessee regional universities without duplicating an institution already chosen as a unique peer and without duplicating a state among the core peers. This group of 10 peers for the regional universities (APSU, ETSU, MTSU, TSU, TTU, UTC, and UTM) consisting of seven common peers and three institution-specific peers replaced the set of 10 common peers that had been used since the introduction of peers into the formula. A unique set of 10 peers for UM and a unique set of 10 for UTK were selected from their individual lists. UM and UTK were limited to no more than two peers from any single state and only one state duplication. A list of potential peers was identified for each of the 14 community colleges and technical institutes, and a common set of 10 peers was selected on the basis of the highest scores with a limit of one peer institution from a state.

Of all the modifications to the formula, the introduction of peer group comparisons has possibly remained the most controversial. Controversy stems not from the use of peer groups, but from attempting to match peers to such a diverse group of institutions with a vast array of missions. Nicks was chancellor of TBR when the peer group comparison was first introduced.

Nicks commented,

You try to identify institutions that have characteristics of institution *A* in Tennessee or institution *B* in Tennessee. And, it is really difficult to do. I wouldn't say that the peer experience has been a failure but it really does not match up very well with institutions in Tennessee, and I don't know that you can. Institutions are so varied across the country, and we say in Tennessee that we want each institution to have a mission and a role that is unique. So, institution *A* in Tennessee should not be like institution *B* in Tennessee. We want them to do different things and do those things well. So it is hard to select peers. (personal communication, September 2, 2003)

Fly was the primary representative for selecting peers for the UT system:

There were more than ten Carnegie institutions in the SREB and it was a matter of trying to weed out which ones you would select and which ones you would leave out. And then when you started looking at the other Carnegie classifications the institutions were picking the ones with the highest funding as peers....without any regard to program offerings, similarity of missions, and those kinds of issues. So I guess we all fell into that to some extent. And I was concerned about Martin and Chattanooga's peers, particularly Martin since Martin is the only school, or is now but maybe at that time Austin Peay did not have a doctoral program. (personal communication, October 22, 2003)

According to Higley, the final elements used in the computer model were a compromise reached by the representatives from THEC, TBR and UT. Higley described the process as follows:

By excluding some elements that the model was looking at and including other elements that people agreed were important the elements were finally agreed on that should be in the model and then the model was refined by everyone involved until it got to the point of really running the list to actually select from....we had a person at THEC at the end that run the model....an institutional researcher run the model, who was not part of the deliberations and the decision making process except giving us the data that came out of the model. (personal communication, July 30, 2003)

Considering the financial impact that an institution's peer group has on the dollars generated by the formula, driving both the average faculty salaries used for instruction and the average dollars needed for library holdings, it is not surprising this remains a controversial issue. Folger stated,

There have been a lot of elaborate procedures about how do you pick out peers and it doesn't take a rocket scientist to figure out which ones you would like to have as peers. So you say, I would like to have Michigan and Wisconsin, Minnesota, and the University of North Carolina because they pay pretty good at those schools. Add the University of Virginia because they pay pretty well at UVA too. And, it turns out they pay pretty well at the University of Maryland. But we know that our people on average pay better than the University of Mississippi and Arkansas pay, so we are not keen on having them as peers....but the basic idea is setting goals for improvement of the system. (personal communication, August 21, 2003)

Dr. Robert Adams, Vice Chancellor for Business and Finance for TBR, provided additional insight into the peer selection process and the ultimate decisions that were made to accommodate the peer match controversy:

The politics of how they were selected ultimately came into play. I don't think they were necessarily just taken line by line on ranking, they were looking at, OK, what does that particular institution generate, and there were some dissatisfied institutions. TTU, to this day, thinks they got the short end of the stick on peers. They think they weren't good comparisons for them. If I understand correctly, the final decision, and from what I heard, [there was] almost a shouting match down at THEC in the waning hours of selecting peers. Everybody was told this is it; you are going to have to live with it. But, to help TTU...a \$1 million addition to the formula [was added] in recognition of the fact they are an engineering school...ETSU gets a supplement because of the things they do as an institution in support of the medical school. (personal communication, July 30, 2003)

Higley confirmed that the resulting groups of peers are the ones used now with the exception of minor changes resulting from colleges in the initial group "losing their accreditation or going out of existence" (personal communication, July 30, 2003). Fly feels that incorporating peer institutions into the formula and using the various taxonomies for student credit hours adequately addresses mission on the instruction component of the formula but it does not address the research mission of the institutions, which is really "a matter of vision and outcome achievements and those kinds of things" (personal communication, October 22, 2003).

Funding Quality – the Golden '80s

The 1980s were a time of de-emphasizing enrollments and emphasizing quality nationally (see discussion on page 27), and this was true for Tennessee as well. Roaden, whose appointment as executive director of THEC coincided with Governor Alexander's second term as Governor, described this time with tremendous enthusiasm:

Governor Alexander...wanted to do something for all of education and he wanted to do something for higher education. He asked me what might be done and I told him that he might want to be the first Governor who could claim that the formula, the basic formula for funding higher education in Tennessee, was fully funded. Also, the legislature, at that time, was talking about some special programs that might be started. The Governor was enthralled with the notion of Centers of Excellence and I liked that notion, too. Some of the legislators, John Bragg, in particular, who was head of the finance committee for the house, thought that we ought to have distinguished professors – that we ought to establish chairs. So they, the Governor and legislative leaders talked about that and they came out with the best compromise that you could imagine – they decided to do both. So, in one year the formula was fully funded, Chairs of Excellence was fully funded, Centers of Excellence were established....At least for a period of time, Tennessee higher education was looked upon by higher education experts around the country as being a model, and we were doing some remarkable things. (personal communication, August 21, 2003)

Other factors, including a strong economy and a sales tax increase, contributed to the additional funding provided to higher education during the 1980s. Albright commented that,

During that time there was a sales tax that was enacted, and that sales tax was dedicated for K-12 and higher education. So Tennessee had additional resources coming into the state and the decision was made by political leadership, which would be both the Governor and the legislators, to go forth with a program, a very progressive program, to put resources into higher education. They said when they enacted the legislation that they intended to do that, and they did that. It was tied to the tax increase. And, at that time the economy was very strong in Tennessee as well, so you had both of those factors. (personal communication, September 2, 2003)

THEC's biennial report for 1986-88 reported that since 1984, Tennessee had provided \$100 million to the Centers of Excellence at the universities, \$6 million to the Centers of Emphasis at the community colleges, \$43 million to endow Chairs of Excellence at the universities, \$3 million for an Academic Scholarship endowment, \$15 million for state-of-the-art equipment and other improvements at the area vocational schools, and \$20 million for instructional and research equipment. Combining these initiatives with four years of fully funding the formula, Tennessee ranked in the middle nationally on the measure of per capita appropriation by 1989-90. And, Tennessee ranked "above the average in terms of state appropriations per student for supporting universities and two-year colleges" (p. 43) within the

SREB states. Tennessee ranked 19th on appropriations per \$1,000 personal income nationally exceeding the national average by \$0.41 per \$1,000 personal income in 1989-90.

Full-Formula Funding

Seldom in the history of the formula has it been fully funded, but this did occur for the first time in FY1986-87 (THEC, 1986-88). Obtaining full funding of the formula was not an easy task. Adams recalled,

Under Governor Alexander, his second term, one of his accomplishments was, and one he intended to do and was able to do much faster than I thought he would, he fully funded the formula....I remember when we arrived at our preliminary figures that we got a good way toward fully funding it, and I remember the THEC staff, particularly Brenda [Albright] still being optimistic about fully funding the formula. I personally did not see how the Governor was going to be able to do it, and so I remember not being encouraging to her.... At one of the meetings that we went to, he [Governor Alexander] saw a way to fully fund it and did. (personal communication, September 12, 2003)

Full funding of the formula continued for three more years, fiscal years 1987-88, 1988-89, and 1989-90 (THEC, 1986-88).

Performance Funding

“Tennessee’s performance funding program was the first statewide program in the nation to provide incentives to colleges and universities for improving the quality of academic performance” (THEC, 1986-88, p. 3). Both Roaden and Ramer, who were presidents at the time of the campuses’ selected for the performance funding pilot projects, felt this was a great move that Tennessee had made. Roaden stated:

That was a real plus, in my opinion, for the State of Tennessee. I think that did more than anything else to put Tennessee on the map because no other state, at the time, had been doing that....That caused states all over the country to say – what’s happening in Tennessee? What is Tennessee doing? We had people – researchers – from all over the country constantly studying to see what Tennessee was doing. Other states began performance funding but had very grave difficulty doing it. I think we did it before everybody thought it could be done. We were busy at work doing what other states said

couldn't be done – you couldn't evaluate quality of performance. (personal communication, August 21, 2003)

Ramer stated,

I remember it as a very innovative and unique concept. We were all a little skeptical of it originally, but it seemed to be a way to reward academic success and academic responsibility, I might say. It seemed to be a way to give extra incentives to colleges...to do a creditable job with their academic programs and productivity and efficiency and innovation. I think it was a good move. But we were a little skeptical of it originally, but of course, it became pretty popular and competitive. (personal communication, August 20, 2003)

The birth of a performance-funding concept occurred in 1974 (Bogue, 1980). The W.K. Kellogg Foundation, the Ford Foundation, and an anonymous Foundation provided funding, \$250,000, \$64,400, and \$75,000 respectively, to support the research and development of the project. Planning occurred between 1974 and 1976; and, in 1976, 11 public colleges and universities were selected to participate in campus-based pilot projects. The eight universities selected to participate were:

1. Austin Peay State University
2. Memphis State University (University of Memphis)
3. Tennessee Technological University
4. University of Tennessee Center for the Health Sciences
5. University of Tennessee at Chattanooga
6. University of Tennessee at Knoxville
7. University of Tennessee at Martin
8. University of Tennessee at Nashville

Three community colleges were also selected:

1. Columbia State Community College
2. Shelby State Community College
3. Volunteer State Community College

External funding in the amount of \$343,500 was provided to support the pilot projects (Bogue, 1980).

The next logical step was to involve all of the public institutions and provide funding through the formula. The Formula Evaluation Committee's agenda for their June 13, 1978, meeting included performance funding as an item for discussion (Albright memo to the Formula Evaluation Committee, June 13, 1978). Attached to the agenda was a proposed approach whereby institutions would submit proposal for funding in this category; however, not all institutions would receive funding. The proposals would be evaluated on several criteria including:

1. The extent the proposal showed promise of addressing statewide goals in the instructional area.
2. The extent the proposal emphasized institutional mission and supported uniqueness of the institution.
3. The extent the proposal had long-range benefits.
4. The extent that institutional faculty and staff would be involved in the project.
5. The extent to which the project had the potential to impact educational policy or practices in the institution.

Minutes of the August 28, 1978, Tennessee Higher Education Commission reported that THEC staff proposed adding some instructional evaluation funding to the formula effective with FY1979-80 and the Commission members approved this. However, this concept did not receive favorable consideration by the executive administration (Bogue, 1980). The executive branch was transitioning from democratic to republican, and there was not enough time to brief the new administration on the background of the project. THEC decided to approach funding for 1979-80 from a more limited angle that did not require the executive officers' approval and announced their intention to include performance funding in the more comprehensive review of the formula

scheduled for the following year (Bogue). THEC's instructions to the campuses for submitting their 1979-80 appropriations request included the following:

On August 28, 1978, the Commission approved a Performance Funding policy for implementation in the 1979-80 appropriations cycle. This policy provides an opportunity for each institution to request an appropriation for performance funding. The policy involves a multi-year plan with annual funding recommendations and performance expectations. (Bogue, p. 48)

A lump sum amount that each institution could receive was listed, and the institutions were instructed to indicate by a letter from the campus president/chancellor their desire to participate and their agreement to the performance outcomes specified. For the 1979-80 year the campuses had to produce by June 30, 1980, "a profile of performance goals and objectives for each academic program offered by the institution" (p. 48). A total of \$802,000 had been designated for instruction evaluation.

From the beginning, performance funding was intended as an add-on to the academic unit formula, and institutions could select whether or not to participate. Roaden stated,

That first year many were very reluctant to participate and one institution, only one, did not – one community college elected not to participate. It was our policy that this not become a matter of public hurrah – we are the best – we got the highest score of any institution. The HEC never publicized how the institutions did, but you can believe the institutions did – they publicized it. They said, we're number 1! We scored highest. Of course, the press jumped on that and they came to the HEC and those are open records....Well the first release always came from the campuses that did well. So, you can believe that the second year there weren't any laggards – everybody jumped on it too because they saw they could be terribly embarrassed in their communities if they didn't participate....So this created a real furor for them to do a good job. (personal communication, August 21, 2003)

THEC included a component to address instructional evaluation in the major formula revisions effective with the 1980-81 budget year. The 1980-81 formula included provisions for an additional 2% to be earned by the institutions upon evaluation on five instructional variables and one optional variable. The 1982-83 formula included a provision for up to 2% of

appropriations (\$4 million statewide) for institutions that demonstrated instructional evaluation activities (THEC, 1982-83). The 1984-85 formula increased the funding that institutions could earn to 5% and \$12.1 million statewide. In FY1988-89, this component of the formula was officially labeled *performance funding*, and the amount remained at 5%; however, no statewide maximum was stated. Since that time, evaluation criteria have been reviewed and updated at five-year intervals. Performance funding in Tennessee has “evolved over five major cycles including a pilot phase and four five-year cycles” (Noland & Davis, 2000). Performance funding is now in the fifth five-year cycle. The amount that each institution can earn is currently 5.45% of their appropriations request.

Chairs of Excellence

As discussed earlier, Chairs of Excellence was the brainchild of John Bragg, a prominent Tennessee legislator. This is how Bragg remembers the creation of the chairs:

I was worried about Lamar wanting to have centers of excellence because it would cost, every year, money. I said to Lamar, there is going to be a whole lot of prejudices and biases because in the first place you may not be able to fund them every year, and second thing is that UT will probably get all of the centers anyway. I said, well, let's put in chairs of excellence. We will put in money and we will let the universities come up with funding for half the cost and let the state put in half the cost which would give us half million each, and that would give us a million dollars for these chairs....I remember going up and telling Lamar that I was going to transfer the money [budget proposal] for the centers over to the chairs because we wouldn't have to worry about funding much....Well, anyway, Lamar said, I'm all committed to do something about putting [in] the centers. And, I said, well I hate to tell you but I wouldn't go along with the centers unless you do the chairs. He called Hubert McCullen who was with F & A and said, can you find Bragg \$10 million to create these chairs he is talking about? Hubert came back the next morning and said we can take care of that, John. So that is how we got the chairs....After I got the chairs, I got sold on them, I didn't mind Lamar getting his centers. (personal communication, September 3, 2003)

The Chairs of Excellence endowment fund was officially created by Public Acts 1985, chapter 119, section 1 (TCA 49-7-501). The fund was to operate as an irrevocable trust fund

within the state treasury and was to be administered by the state treasurer. The corpus of the trust could not be expended for any purpose, and the income was to be expended for the sole purpose of funding the Chairs of Excellence program.

Institutions eligible to participate in the Chairs of Excellence program were limited to Tennessee's four-year public universities that grant baccalaureate degrees and the UT Space Institute (TCA 49-7-502). Each eligible institution was to receive at least one chair of excellence, and professors hired under the program were to be persons of regional and, preferably, national eminence. The state appropriations were to be matched equally by the institutions with at least one-half of the match coming from private sources. Proposals for chairs were to be submitted to each institution's governing board with THEC playing an advisory role in the approval of the proposals. No funds were to be expended for a chair until the joint legislative oversight committee had reviewed the proposed chair. After a chair was filled, the governing board was required to report to the joint legislative oversight committee the general background, experience and qualifications of the appointee. Annual reporting to the joint legislative oversight committee on the general status of the chairs of excellence, the impact of the chairs on the institutions and their programs was required. THEC's biennial report for 1986-88 showed that seventy-eight chairs of excellence were established between 1984 and 1990.

Centers of Excellence and Centers of Emphasis

The concept of Centers of Excellence for the universities was initiated and funded in 1984-85. Centers of Emphasis for the community colleges followed in 1986-87. The intent of both programs was to focus on and enhance outstanding academic programs; however, the Centers of Emphasis also included a provision for the community colleges to develop superior programs in public service (THEC, 1986-88). Between 1984 and 1990, 27 centers of excellence

and 14 centers of emphasis had been established. Cumulative state appropriations to support the centers of excellence were \$99.7 million, and another \$5.6 million had been provided to support the centers of emphasis.

Ramer spoke about the centers:

The centers of excellence in universities and centers of emphasis in the two-year institutions have been an important factor in providing, particularly in the community colleges, to reach out to various aspects of public service. Volunteer State, of course, has the emergency medical and paramedic programs, and that has a big impact. We are furnishing the ambulance people of middle Tennessee with training in emergency medical, and I am sure each institution has something of similar value. (personal communication, August 20, 2003)

Financial Analyses – 1990s and Beyond

Financial support for higher education in Tennessee began to decline with the 1990s, and by 1991-92 had slid to a low of \$4,250 per student appropriation (Governor's Council on Higher Education, 1999). Tennessee's spending for higher education exceeded the national average in 1984-85 and climbed to an all-time high in 1986-87 where it stayed until 1989-90. Graphically, national spending showed a slightly steep climb from 1982-83 until 1985-86 when it leveled somewhat and then continued upward at a more moderate pace. Tennessee spending, however, climbed steeply throughout the early 1980s, peaked during 1986-87, remained relatively level until 1989-90, and again declined below the national average in 1990-91. By 1991-92 Tennessee was spending considerably less on higher education than was the case nationally, and although Tennessee's spending increased, it was still below the national average in 1994-95, and continues to remain below the national average. Another disturbing trend that occurred in the 1990s was the decline in higher education's appropriations as a percentage of the state budget. Higher education received approximately 16% of the state budget during fiscal years 1989, 1990, and 1991. Higher education received only 14.5% of the state budget in FY1992. Although fiscal

years 1993, 1994, and 1995 improved somewhat, they still remained well below 16% and had dropped to approximately 13.5% by 1999. With the 2003-04 budget, higher education received only 10.6% of the state's generated appropriation of funds (Adams, personal communication, July 30, 2003). The decline in state support to higher education is shown in Table 3, which compares the state's actual appropriations to the THEC's recommendations for fiscal years 1986-87 through 2001-02.

| Table 3. THEC Recommendation as a Percentage of Actual State Appropriation | | | |
|-------------------------------------------------------------------------------|---------------------|----------------------|------------|
| Year | THEC Recommendation | Actual Appropriation | Percentage |
| 1986-87 | 424,132,000 | 430,438,500 | 101.5 |
| 1987-88 | 454,400,000 | 450,751,000 | 99.2 |
| 1988-89 | 481,569,000 | 474,802,047 | 98.6 |
| 1989-90 | 507,236,000 | 492,572,600 | 97.1 |
| 1990-91 | 547,703,000 | 498,830,000 | 91.1 |
| 1991-92 | 589,355,700 | 482,198,400 | 81.8 |
| 1992-93 | 593,737,000 | 539,501,900 | 90.9 |
| 1993-94 | 617,474,000 | 590,055,900 | 95.6 |
| 1994-95 | 650,591,600 | 617,235,000 | 94.9 |
| 1995-96 | 700,060,400 | 653,520,600 | 93.4 |
| 1996-97 | 686,921,200 | 661,600,200 | 96.3 |
| 1997-98 | 732,656,930 | 657,698,400 | 89.8 |
| 1998-99 | 747,662,900 | 680,637,000 | 91.0 |
| 1999-2000 | 806,709,000 | 741,756,600 | 91.9* |
| 2001-01 | 883,098,600 | 767,894,000 | 87.0 |
| 2001-02 | 900,611,600 | 795,034,550 | 88.3 |
| *Includes Tennessee Technology Centers for first time. | | | |

Information provided by the Tennessee Higher Education Commission.

An analysis of the state appropriations received by TBR institutions shows that from 1992-93 through 2001-02 actual state appropriations have increased in dollars each year during the ten-year period studied. However, the percentage of THEC formula recommended dollars to actual dollars appropriated have averaged only 92.7% with a low of 88.6% in 1992-93 and a high of 102.6% in 1994-95. Said another way, the higher education formula has been funded at approximately 92.7% over the 10 years studied. Actual state appropriated dollars exceeded the THEC formula recommendation in 1994-95 by \$11 million; however, in all other years the actual appropriations have fallen short of the recommended amount by an average of approximately \$43 million. The 1994-95 year was exceptional in that the state provided two across-the-board salary increases: one in July and one in January, \$9.4 million and \$9.6 million, respectively. Table 4 provides a year-by-year analysis of the recommended funding compared to actual funding.

| Year | THEC Recommendations For TBR | Actual State Appropriations For TBR | THEC/Actual Difference For TBR | Percentage Recommended to Actual |
|-----------|------------------------------|-------------------------------------|--------------------------------|----------------------------------|
| 1992-93 | \$407,257,049 | \$361,840,500 | \$ 45,416,549 | 88.85 |
| 1993-94 | 426,001,969 | 394,748,800 | 31,253,169 | 92.66 |
| 1994-95 | 433,269,655 | 444,444,800 | (11,175,145) | 102.58 |
| 1995-96 | 475,794,628 | 448,998,900 | 26,795,728 | 94.37 |
| 1996-97 | 475,625,429 | 465,494,600 | 10,130,829 | 97.87 |
| 1997-98 | 508,119,100 | 452,953,600 | 55,165,500 | 89.14 |
| 1998-99 | 520,729,098 | 483,731,200 | 36,997,898 | 92.89 |
| 1999-2000 | 536,538,101 | 495,017,800 | 41,520,301 | 92.26 |
| 2000-2001 | 572,903,300 | 508,292,500 | 64,610,800 | 88.72 |
| 2001-2002 | 594,919,900 | 522,131,800 | 72,788,100 | 87.77 |

Information provided by Tennessee Board of Regents, Department of Finance and Administration.

THEC's recommended appropriations have exceeded the governors' budget recommendations by an average of \$50 million over the 10 year period from fiscal year 1993 through fiscal year 2002. Fiscal year 1992-93 was the bleakest when the governor's recommendation fell \$80.5 million below the amount THEC had recommended for the TBR schools. Just as disturbing is the fact that the governors' recommendations provided for only an average of 90% of the TBR institutions' needs as generated by the formula. Table 5 provides a comparison by fiscal year of the THEC recommendations to the governors' recommendations.

| Table 5. THEC Recommendations for TBR Compared to Governors' Recommendations for TBR | | | | |
|-----------------------------------------------------------------------------------------|------------------------------------|------------------------------------------|----------------------------------------|----------------------------------------|
| Year | THEC Recommendations For TBR | Governors' Recommendations For TBR | THEC/Governor Difference For TBR | Percentage THEC/Governor For TBR |
| 1992-93 | \$407,257,049 | \$326,722,400 | \$ 80,534,649 | 80.23 |
| 1993-94 | 426,001,969 | 370,974,500 | 55,027,469 | 87.08 |
| 1994-95 | 433,269,655 | 411,776,700 | 21,492,955 | 95.04 |
| 1995-96 | 475,794,628 | 447,104,500 | 28,690,128 | 93.97 |
| 1996-97 | 475,625,429 | 448,798,900 | 26,826,529 | 94.36 |
| 1997-98 | 508,119,100 | 445,159,900 | 62,959,200 | 87.61 |
| 1998-99 | 520,729,098 | 473,380,000 | 47,349,098 | 90.91 |
| 1999-2000 | 536,538,101 | 493,452,600 | 43,085,501 | 91.97 |
| 2000-2001 | 572,903,300 | 515,463,400 | 57,439,900 | 89.97 |
| 2001-2002 | 594,919,900 | 528,121,600 | 66,798,300 | 88.77 |

Information provided by Tennessee Board of Regents, Department of Finance and Administration.

A comparison of the governors' recommendation to the actual appropriations shows that the actual appropriations have exceeded the governors' requests in all but two years. The largest amount, \$35 million in FY1992-93, was supported by a sales tax increase distributed after the governor's budget request had been submitted. Fiscal years 1994, 1995, 1998, 1999, and 2000 all included improvement funds that had been added by the legislature after the governors' budgets had been submitted. Three of those years also included one-time appropriations bill

amendments for specified TBR institutions. Fiscal years 1993, 1994, 1995, 1997, and 1999 included across-the-board salary increases that were provided to all state employees including higher education employees. Salary improvement funding was also provided in fiscal years 2001 and 2002. Funding for faculty salary increases were provided in fiscal year 2000. However, a 1% reduction for administrative efficiencies also occurred that year. Both fiscal years 2001 and 2002 had legislative reductions of \$21.5 million and \$22.2 million, respectively. A 1% set aside provision reduced the amount appropriated in fiscal year 2002 by \$5.8 million. Table 6 provides data for individual years.

| Year | Actual State Appropriations For TBR | Governors' Recommendations For TBR | Difference Actual/Governor |
|-----------|-------------------------------------|------------------------------------|----------------------------|
| 1992-93 | \$361,840,500 | \$326,722,400 | \$ 35,118,100 |
| 1993-94 | 394,748,800 | 370,974,500 | 23,774,300 |
| 1994-95 | 444,444,800 | 411,776,700 | 32,668,100 |
| 1995-96 | 448,998,900 | 447,104,500 | 1,894,400 |
| 1996-97 | 465,494,600 | 448,798,900 | 16,695,700 |
| 1997-98 | 452,953,600 | 445,159,900 | 7,793,700 |
| 1998-99 | 483,731,200 | 473,380,000 | 10,351,200 |
| 1999-2000 | 495,017,800 | 493,452,600 | 1,565,200 |
| 2000-2001 | 508,292,500 | 515,463,400 | (7,170,900) |
| 2001-2002 | 522,131,800 | 528,121,600 | (5,989,800) |

Information provided by Tennessee Board of Regents, Department of Finance and Administration.

Similar to the TBR institutions, UT institutions also received state appropriated dollars in increasing amounts each year during the ten-year period studied except in FY1997 when their actual state appropriations decreased by \$4.6 million compared to the prior year. UT received its highest percentage of formula recommended funding in FY1995, which was 98.33%. The lowest percentage of funding occurred in FY2002, which was 84.45% of the formula generated amount. A combination of the 5% across-the-board mid-year impoundment and the initial

distribution of improvement funding based primarily on enrollment growth contributed to UT's greater reduction in state funding. Davis noted that,

UT receives a significant part of its state appropriations to support non-formula units. Given the state's current bent toward funding enrollment growth, this means many UT units are adversely impacted. If you don't have students, you don't benefit when new funding is provided. However, you share equally when reductions are occurring. (personal communication, October 17, 2003)

Fly noted,

What has happened in many states is that the flagship institution has suffered by the formula funding mechanism particularly when the flagship institution doesn't grow – doesn't decide to grow. Growth in this state is a questionable way [to fund] – certainly it is no way to get the quality because you are funding so little of new students. (personal communication, October 22, 2003)

The UT academic units received an average of 91.8% of the formula recommended funding compared to TBR's 92.7% over the same time period. However, the UT actual state appropriations shown on Table 7 are beginning appropriated dollars excluding certain legislative salary increases and other legislative adjustments made to actual appropriations outside of the formula. These adjustments were included in the TBR appropriations shown on Table 4. As an example of the difference created by the parameters used, UT's actual appropriations for fiscal year 1995 would have been 104.03% of the THEC recommendation as compared to TBR's 102.58% actual over THEC's recommendation had these adjustments been considered. Due to the different parameters used to calculate the data, a comparison between the two systems is not appropriate. The UT personnel noted "due to the time difference between the THEC recommendation and the appropriation of state funds by the legislature, it is sometimes difficult to determine the comparable funded initiatives included in both, especially in the earlier years" (Paxton, personal communication, October 22, 2003).

| Year | THEC Recommendations For UT | Actual State Appropriations For UT | THEC/Actual Difference For UT | Percentage Recommended to Actual |
|-----------|-----------------------------|------------------------------------|-------------------------------|----------------------------------|
| 1992-93 | \$188,116,000 | \$167,850,600 | \$ 20,265,400 | 89.22 |
| 1993-94 | 191,472,000 | 182,597,800 | 8,874,200 | 95.36 |
| 1994-95 | 192,086,000 | 188,893,200 | 3,192,800 | 98.33 |
| 1995-96 | 214,484,400 | 203,400,300 | 11,084,100 | 94.83 |
| 1996-97 | 211,295,500 | 198,826,700 | 12,468,800 | 94.09 |
| 1997-98 | 224,537,800 | 204,893,000 | 19,644,800 | 91.25 |
| 1998-99 | 226,926,800 | 205,279,900 | 21,646,900 | 90.46 |
| 1999-2000 | 230,211,100 | 211,677,300 | 18,533,800 | 91.94 |
| 2000-2001 | 247,660,400 | 217,433,400 | 30,227,000 | 87.79 |
| 2001-2002 | 259,549,000 | 219,191,300 | 40,357,700 | 84.45 |

Information provided by University of Tennessee, Office of the Vice President for Budget.

The governors' recommendations for UT academic unit funding has ranged from a low of 89.25% in FY1998 to a high of 97.18% in FY1995. The governors' recommendations for the UT academic units averaged 92.42% over the 10-year period studied. In dollars the governors' recommendation has averaged \$16.9 million less than the amount generated by the THEC formula. Table 8 provides a year-by-year comparison of the formula generated funding requirements compared to the governors' recommendations.

| Year | THEC Recommendations For UT | Governors' Recommendations For UT | THEC/Governor Difference For UT | Percentage THEC/Governor For UT |
|-----------|-----------------------------|-----------------------------------|---------------------------------|---------------------------------|
| 1992-93 | \$188,116,000 | \$170,077,800 | \$ 18,038,200 | 90.41 |
| 1993-94 | 191,472,000 | 178,916,500 | 12,555,500 | 93.44 |
| 1994-95 | 192,086,000 | 186,678,400 | 5,407,600 | 97.18 |
| 1995-96 | 214,484,400 | 203,381,100 | 11,103,300 | 94.82 |
| 1996-97 | 211,295,500 | 204,531,700 | 6,763,800 | 96.79 |
| 1997-98 | 224,537,800 | 200,401,000 | 24,136,800 | 89.25 |
| 1998-99 | 226,926,800 | 207,257,000 | 19,669,800 | 91.33 |
| 1999-2000 | 230,211,100 | 211,652,300 | 18,558,800 | 91.93 |
| 2000-2001 | 247,660,400 | 221,607,700 | 26,052,700 | 89.48 |
| 2001-2002 | 259,549,000 | 232,433,500 | 27,115,500 | 89.55 |

Information provided by University of Tennessee, Office of the Vice President for Budget.

UT's actual state appropriations have exceeded the governors' recommendations by significant dollar amounts in only three of the 10 years studied. Fiscal year 2002 was particularly difficult for UT in that the actual appropriations were \$13.2 million below the Governor's recommendation that was already \$27.1 million below the amount recommended by THEC. Table 9 provides additional details.

| Table 9. Actual State Appropriations for UT Compared to Governors' Recommendations for UT | | | |
|----------------------------------------------------------------------------------------------|------------------------------------|-----------------------------------|-----------------------------------|
| Year | Actual State Appropriations For UT | Governors' Recommendations For UT | Difference Actual/Governor For UT |
| 1992-93 | \$167,850,600 | \$170,077,800 | \$ (2,227,200) |
| 1993-94 | 182,597,800 | 178,916,500 | 3,682,300 |
| 1994-95 | 188,893,200 | 186,678,400 | 2,214,800 |
| 1995-96 | 203,400,300 | 203,381,100 | 19,200 |
| 1996-97 | 198,826,700 | 204,531,700 | (5,705,000) |
| 1997-98 | 204,893,000 | 200,401,000 | 4,492,000 |
| 1998-99 | 205,279,900 | 207,257,000 | (1,977,100) |
| 1999-2000 | 211,677,300 | 211,652,300 | 25,000 |
| 2000-2001 | 217,433,400 | 221,607,700 | (4,174,300) |
| 2001-2002 | 219,191,300 | 232,433,500 | (13,242,200) |

Information provided by University of Tennessee, Office of the Vice President for Budget

Table 10 shows an expenditure trend over 10 years for all TBR schools combined. Resources expended for instruction have steadily declined as a percentage of the total current fund unrestricted expenditures. However, expenditures have steadily increased in the research functional area over the same time period. Except for fiscal year 1995-96, expenditures in the student services functional areas have also continuously increased over the 10-year time period. Small variations have occurred in the expenditure patterns for public service, institutional support, operation and maintenance of plant, and scholarship and fellowship functional areas.

| Table 10. Functional Areas as a Percentage of Total Expenditures for TBR | | | | | | | | | |
|-----------------------------------------------------------------------------|----------------------|----------|-------------------|-----------------|------------------|------------------|--------------|---------------|-------|
| Fiscal Year | TBR Functional Areas | | | | | | | | Total |
| | Instruction | Research | Public Service | Acad Support | Student Servs | Insti Support | O&M Plant | Sch/ Fship | |
| 1993 | 56.4 | 1.1 | 1.5 | 8.6 | 10.4 | 10.9 | 9.5 | 1.8 | 100 |
| 1994 | 55.6 | 1.1 | 1.6 | 8.9 | 10.5 | 11.1 | 9.4 | 1.9 | 100 |
| 1995 | 55.3 | 1.2 | 1.5 | 9.1 | 10.3 | 11.6 | 9.2 | 1.9 | 100 |
| 1996 | 54.9 | 1.2 | 1.6 | 9.2 | 9.5 | 12.0 | 9.5 | 2.2 | 100 |
| 1997 | 54.3 | 1.5 | 1.6 | 8.7 | 10.6 | 11.7 | 9.4 | 2.2 | 100 |
| 1998 | 54.3 | 1.6 | 1.4 | 8.7 | 10.8 | 11.5 | 9.5 | 2.4 | 100 |
| 1999 | 53.4 | 1.5 | 1.4 | 8.2 | 12.1 | 11.5 | 9.5 | 2.3 | 100 |
| 2000 | 52.9 | 1.7 | 1.5 | 8.2 | 12.4 | 11.6 | 9.5 | 2.4 | 100 |
| 2001 | 52.7 | 1.7 | 1.5 | 8.1 | 12.5 | 11.6 | 9.9 | 2.2 | 100 |
| 2002 | 52.7 | 1.7 | 1.4 | 8.5 | 12.9 | 11.5 | 9.5 | 2.0 | 100 |

Information taken from Tennessee Board of Regents annual reports except FY 2002 data, which was provided by Tennessee Board of Regents, Department of Finance and Administration.

Table 11 reveals that expenditures for instructional related activities have declined slightly at UT system schools since 1993; however, research and student services functions have remained fairly constant over the same time period. Institutional scholarships and fellowships have increased slightly more than 1% in 10 years. There is no discernable trend in the expenditure patterns for institutional support and operation and maintenance of plant, although some variation has occurred over the years. Decreases of approximately 1% have occurred in both the public service and the academic support functions in FY2002. A large portion of this

change is due to the new financial statement standards required by GASB Statement 35 and incorporated into UT's reporting in FY2002.

| Table 11. Functional Areas as a Percentage of Total Expenditures for UT | | | | | | | | | |
|----------------------------------------------------------------------------|---------------------|----------|-------------------|-----------------|------------------|------------------|--------------|---------------|-------|
| Fiscal Year | UT Functional Areas | | | | | | | | Total |
| | Instruction | Research | Public Service | Acad Support | Student Servs | Insti Support | O&M Plant | Sch/ Fship | |
| 1993 | 47.1 | 6.6 | 8.5 | 11.6 | 6.2 | 8.8 | 8.5 | 2.7 | 100 |
| 1994 | 47.0 | 6.4 | 8.6 | 11.2 | 6.1 | 9.1 | 8.8 | 2.9 | 100 |
| 1995 | 47.1 | 6.4 | 8.6 | 11.5 | 6.3 | 9.1 | 8.4 | 2.8 | 100 |
| 1996 | 46.2 | 6.5 | 8.1 | 11.4 | 6.3 | 10.2 | 8.4 | 2.9 | 100 |
| 1997 | 45.4 | 6.7 | 8.5 | 11.7 | 6.4 | 9.8 | 8.3 | 3.3 | 100 |
| 1998 | 45.7 | 6.4 | 7.9 | 11.7 | 6.9 | 9.5 | 8.5 | 3.4 | 100 |
| 1999 | 44.8 | 6.8 | 8.1 | 11.9 | 7.0 | 9.6 | 8.3 | 3.5 | 100 |
| 2000 | 46.0 | 6.5 | 7.5 | 11.7 | 6.6 | 9.4 | 8.5 | 3.9 | 100 |
| 2001 | 46.5 | 6.7 | 7.6 | 11.4 | 6.4 | 8.2 | 9.3 | 3.8 | 100 |
| 2002 | 46.4 | 7.1 | 6.4 | 10.5 | 6.4 | 9.8 | 9.3 | 4.2 | 100 |

Information taken from University of Tennessee annual reports except FY 2002, which was taken from University of Tennessee website.

TBR revenue patterns for the same time period as the expenditures and appropriation analysis is provided in Table 12. State appropriations have declined as a percentage of total revenues, and the tuition and fee revenues have increased over the 10-year period starting in fiscal year 1993. This inverse relationship is expected since these two revenue categories provide the majority of support for the TBR institutions. Unrestricted grants and contracts,

investment income, and other miscellaneous items are classified as other revenues. This category has also increased over the 10-year period as a percentage of the total revenues. Auxiliary enterprise revenues include revenues primarily from bookstore, foodservices, and dormitories. Revenue from these sources have declined possibly due to a number of students electing to live off-campus, therefore reducing revenue received from both dormitories and foodservices.

| Fiscal Year | TBR Unrestricted Revenues | | | | Total |
|-------------|---------------------------|----------------|-------|----------------------|-------|
| | State Appropriations | Tuition & Fees | Other | Auxiliary Enterprise | |
| 1993 | 58.6 | 25.5 | 6.2 | 9.7 | 100 |
| 1994 | 59.3 | 25.0 | 6.4 | 9.3 | 100 |
| 1995 | 60.2 | 24.5 | 6.5 | 8.8 | 100 |
| 1996 | 59.3 | 24.9 | 7.0 | 8.8 | 100 |
| 1997 | 58.3 | 25.6 | 7.3 | 8.9 | 100 |
| 1998 | 56.2 | 27.4 | 7.4 | 9.0 | 100 |
| 1999 | 55.4 | 29.9 | 7.3 | 7.4 | 100 |
| 2000 | 54.3 | 30.6 | 7.8 | 7.4 | 100 |
| 2001 | 53.1 | 31.5 | 8.2 | 7.2 | 100 |
| 2002 | 50.9 | 34.7 | 7.5 | 7.0 | 100 |

Information taken from Tennessee Board of Regents annual reports except FY 2002, which was provided by Tennessee Board of Regents, Department of Finance and Administration.

The University of Tennessee likewise has experienced a decline in the percentage of total revenues provided from state appropriations and an increase in the percentage provided by student tuition and fees. In 1993, state appropriations made up 52.1% of UT's unrestricted revenues, while tuition and fees provided only 18.6%. By 2002 state appropriations had dropped to 45.1% and tuition and fees had grown to 24.1% of total unrestricted revenues. Revenues classified as *other* have grown from 13.8% in 1993 to 16.5% in 2002. Included in this category are federal appropriations, local appropriations, grants and contracts, private gifts, endowment and investment income, sales and services of educational activities, and miscellaneous revenues. Grants and contracts, consisting of federal, state, local, and private grants, have provided the largest amount of resources classified as *other*. Consistent with its mission, UT also receives significant resources from sales and services of educational activities. As a land-grant institution, UT receives some federal appropriations; and, unlike the TBR institutions, some local appropriations are provided to UT each year. Auxiliary enterprise revenues include student housing, bookstore, foodservices, parking services, and the men's athletic department at the UTK campus. Table 13 provides additional details of the percentage distribution over ten years starting in fiscal year 1993.

| Table 13. 10-Year Analysis of Unrestricted Revenues by Percentage for UT | | | | | |
|-----------------------------------------------------------------------------|----------------------|--------------------------|-------|----------------------|-------|
| Fiscal Year | State Appropriations | UT Unrestricted Revenues | | | Total |
| | | Tuition & Fees | Other | Auxiliary Enterprise | |
| 1993 | 52.1 | 18.6 | 13.8 | 15.5 | 100 |
| 1994 | 51.8 | 18.4 | 14.1 | 15.7 | 100 |
| 1995 | 52.3 | 17.7 | 14.5 | 15.5 | 100 |
| 1996 | 52.6 | 17.9 | 13.4 | 16.0 | 100 |
| 1997 | 51.4 | 18.8 | 13.3 | 16.5 | 100 |
| 1998 | 50.3 | 20.8 | 13.6 | 15.3 | 100 |
| 1999 | 49.9 | 21.0 | 13.6 | 15.5 | 100 |
| 2000 | 46.6 | 22.3 | 16.2 | 15.0 | 100 |
| 2001 | 46.6 | 22.3 | 17.0 | 14.2 | 100 |
| 2002 | 45.1 | 24.1 | 16.5 | 14.3 | 100 |

Information taken from University of Tennessee annual reports except FY 2002, which was taken from University of Tennessee website.

The contention of TBR's leadership is that higher education institutions should not expect an improvement in funding anytime in the near future. R. Adams explained,

Not very many years ago, higher education had about 18% of the state generated appropriation of funds, now I am not talking about the total budget of the state which includes all the federal money, but not many years ago we had about 18%, and [with] the current 2003-04 budget, higher education in Tennessee has about 10.6%. So, the priorities and obligations of the state have moved into things like TennCare - health programs, mental health programs. K-12 has been more of an emphasis obviously, and corrections. So, those things have been a priority and, in most cases, our state doesn't react until we get hauled into federal court. So, the courts have dictated a lot of state policy. Higher education doesn't really have legal status for demanding more funding.

We are going to have to continue to try to convince policymakers and state populace that higher education is an important investment. It is not just a cost; it is an investment. (personal communication, July 30, 2003).

Davis at UT also noted that the difference in funding of formula and non-formula units is an issue given the limited state funding available to higher education:

The difference between UT and TBR organizational structure also contributes to the funding disparity. Much of our research and service programs are statewide and not campus specific thus the creation of these stand-alone units as non-formula units (Ag Extension, Ag Experiment Stations, Institute for Public Service, MTAS, CTAS, and other units with students). In comparison, the research and service functions are part of each TBR campus. Thus when funds are distributed these functions can benefit, if the campus so desires. This is not the case in the UT system. (personal communication, October 17, 2003)

Looking to the Future

Changing State Structures to Improve Funding

When discussing changes to state structures to improve funding or to improve how higher education uses its funds, any number of thoughts and ideas emerged but most can be lumped into three broad categories: state revenue structure; higher education governance structure; and leadership, image, and trust. However, as several of the interviewees pointed out – it is easy to talk in the abstract or as if you were starting from scratch; however, whatever is going to be done must take into consideration the political environment, or as one person said, the politics of it.

State Revenue Structure. The basic improvement in funding for colleges and universities will come if we have tax reform. This was the overwhelming sentiment expressed by the majority of the persons interviewed for this study. Folger stated,

We need a graduated income tax, and we need to have less reliance on sales tax. We are overall a low tax state in Tennessee. If you look at all the state and local taxes paid by

the citizens of Tennessee, we are in the bottom three or four states on a per person basis. Until you get that change in the way we raise money so that the tax structure is more responsive to economic growth, you are going to have less public money. Higher education will get more adequate state funding when the state has more money. (personal communication, August 21, 2003)

Bragg spent his legislative career attempting to achieve tax reform. He led the push for the 1985 tax structure study and was very disappointed that he was not able to obtain the support necessary to move an income tax bill forward (personal communication, September 3, 2003). Others have also attempted to garner support to reform Tennessee's tax structure to no avail. R. Adams commented, "Given the attitude of the population of Tennessee, the taxpayers do not want anything in the way of new taxes and the state can only do what it can do on the revenue base it has (personal communication, July 30, 2003). R. Adams acknowledged that a dramatic policy change within state government would be necessary to improve funding to higher education.

Johnson also stated that "the tax structure has got to be changed in some fashion because we have too much of a roller coaster effect" (personal communication, October 22, 2003).

Higher Education Governance Structure. Tennessee has had several studies suggesting changes to the higher education governance structure (Rhoda, 1985). Folger contends while the question of why we have two boards and a coordinating board in Tennessee is of great interest and concern to the people in higher education, the average student (or citizen) doesn't know or care. From the resource acquisition standpoint, Folger stated:

It is easy to talk about what the theory of higher education governance is but it is important to recognize that although you look at various structures around the country....The correlation to see whether any of these are more effective in getting money have generally shown little or nothing as to the form of governance and the amount of money. There is a very high relation in the per capita income in the state (median income) and the overall support for higher education in the state. And, there is a

very positive correlation between the level of revenue per family or per person that is collected in the state and the expenditures. (personal communication, August 21, 2003)

Nicks stated that across the country the organization of higher education varies from state to state and whatever works for the state is what is good (personal communication, September 2, 2003). If he were redesigning Tennessee from scratch, he would probably place all of the universities under one board and the community colleges under a separate board. Nicks spoke of how difficult it was during his tenure as chancellor of TBR to get things done in an “appropriate and easy manner” with UT under one board and UM under a separate board. However, Nicks contends the political feasibility of doing this is negligible and the savings would be only a small percentage in the scheme of a billion plus dollars currently spent on higher education. Johnson’s views paralleled those of Nicks and he commented on the Governor’s Council on Excellence in Higher Education report to make his point:

There was a drive behind that by one or two people...that wanted to use that as a reorganization scheme. Both Charles Smith and I opposed that, feeling that if that is all you came out of there with you were going to end up having a political minefield.... Anyway, as Roy and I were saying an organization has nothing to do with academic quality. UVA and UNC-Chapel Hill and the University of Georgia are superb schools. They each have a totally different governance structure. You can’t argue that structure [is quality]. (personal communication, October 22, 2003)

Johnson also bases his concerns on his early experiences in F&A:

Every once in a while there is a [suggestion], well let’s do away with the higher education commission and let’s go back to ...let[ting] F&A be the coordinating board. This is a disaster! That is what we had before in the ‘60s – won’t work. It was strictly ad hoc... (personal communication, October 22, 2003)

If Folger could disregard the politics of the state, he would create a governance structure for Tennessee that would move the governance closer to where the work is being done. Folger stated,

I would have a campus governing board that was responsible for selecting the president and I would have the governing board appointed partly by the alumni, partly by local area leadership, and partly by the Governor because they are funded by public money. I would have some assurance that a recent graduate would have to be appointed to the board. I would not have a student member – by the time the student member figures out what is going on, they are off [the board]. I would have assurance that you had at least one or two young people on the board. Then I would have a statewide board that dealt with statewide policies and issues and didn't run the institution. And, it would deal with issues of how do you allocate dollars and what are the long-range plans – what does the state need to be doing to meet its obligations to grow and prosper to be a better place to live in and higher education is a very important part of all of that. (personal communication, August 21, 2003)

Leadership, Image, and Trust. Albright, Manning, Folger, Nicks, and Roaden all expressed that for higher education to become once again a priority in Tennessee, it must have the support of the Governor and the legislators. Albright stated,

It is a bit of a dilemma for Tennessee because the state resources are, obviously there are many state programs and more needs than there are resources, and the question is will Tennessee decide to place a priority on higher education for the public good or not place a priority on higher education.. And, that is a decision that will ultimately be made by the governor or the legislature but it also involves citizen input and it involves higher education input. There is a need for leadership at all levels to communicate what higher education is doing and how it is serving the state. (personal communication, September 2, 2003).

Albright and Nicks both expressed that it is necessary for higher education to have a very strong advocacy from very strong lay board members. Albright shared the following about the exceptional funding that occurred in the 1980s:

The lay members of the THEC in the mid-80s, and from the time it first started, were extraordinarily strong leaders throughout the state. And, they were very strong advocates and at the time the legislation was enacted in the '80s, I remember going with some of those Commission members to the legislature and they were meeting with the Governor and they were people who were listened to and had a lot of credibility. And, they very strongly believed that Tennessee would be stronger and Tennessee's well-being would be served by putting resources into higher education. They were not shy about saying that and they said it to the right people. People respected what they had to say. So having a strong THEC, and other boards as well, was an important factor in obtaining full formula funding in Tennessee. (personal communication, September 2, 2003)

Nicks shared the following from the perspective of the governing boards:

[Full funding] was because the governor took the lead and I don't know if anybody has told you how that came about but I was at the Board of Regents and we talked with UT and decided that if we were going to make any moves forward we had to get a small group of people from each board to work with the Governor and we had some people on both boards who were close to Lamar Alexander. We got the group together and I don't remember now whether it was six or five, but it was a small group that started meeting with him and started telling him that he needed to be a higher education governor and really make some improvements. And, from our board it was David White. We had numerous meetings with the Governor and that group and he did it. He just stepped out and he said you design these programs and the THEC with UT and us, come up with the centers and full formula funding and he recommended it and we got it. The governor in this state is still very powerful if he will take a lead role and that is what happened there, and it was done with the urging of representatives from THEC, UT Board, and TBR – about six people. (personal communication, September 2, 2003)

Johnson confirmed the cooperation that Nicks spoke of and took it one step further sharing that he and Jack Fishman, Chair of the TBR, had used a similar cooperative effort to convince Governor Sunquist to support the 1999 Governor's Council on Excellence in Higher Education study (personal communication, October 22, 2003).

Bragg expressed concern, not about the leadership of the board members, but about the executive leadership of the three boards and the possible reaction that the legislators will have to the current spending scandal in higher education.

I am worried to death that the legislature will do some knee-jerk legislation that will affect all of higher education. I am just scared to death that they will all get... take this Shumaker thing and just push it by higher education. And, they are going to use the excuse that we had all the money in the world and higher education doesn't need any more money... Well that is what bothers me. I remember when we created THEC and it was to save the colleges' presidents all having to come to Nashville and lobby for their pot of money. So we had great hope of that happening and I think it did happen on the start. But I am not so happy now.... I think our higher education leaders have not done enough to let the public know what is involved here.... If any one thing, the whole structure, I am afraid, has gotten to where they don't feel like they can do anything anymore – they just have to take what is left over. Take what they give. I know that it is tough... One thing about it, presidents or the top people don't need to always be in the office, they need to be out, they need to be out; they need to be somewhere doing something to enhance their programs and their institutions. (personal communication, September 3, 2003)

Roaden contended that Tennessee higher education will need to develop a different mindset from what it has today and begin to talk about what it is that we are doing really well, those things that we are proud of and that we are doing better than anyone else in the country (personal communication, August 21, 2003). Roaden shared the following from his days as executive director of THEC:

Everybody tends to rally around what is good and what is high profile. During the decade that I was executive director of the HEC, when I would present the budget to the legislators, the proposed budget, I always took a great deal of my time saying to them, ‘one question you ought to ask me is how well did you do with what we appropriated last year?’ And I would spend time going through, showing areas where Tennessee is better than any state in the union and the things that we were accomplishing that no other state was accomplishing. Then I would go into the proposed budget for the next year. (personal communication, August 21, 2003)

Using MTSU as an example of an institution that is operating effectively with resources significantly below the needs projected by the formula, Manning contends that tying peer institutions’ dollars to the formula is difficult to defend considering the enormous range of resources available at similar institutions (personal communication, September 3, 2003). According to Manning, the wide range of dollars spent per student frequently equates to the variety of interests that an institution attempts to satisfy rather than the quality of education that is offered. As this relates to the current formula, Manning contends that the argument to fully fund the formula is “worn out, nobody cares about it...we survived even though they haven’t funded it for 15 years almost...then who is going to believe you when you say the house is burning down, you know it’s not” (Interview, September 3, 2003). We must move forward with something that the legislators and the citizens of Tennessee can relate to and identify with and develop a formula around that concept.

Changes to Policies and Procedures

The overriding concerns expressed in the area of policies and procedures are related to accountability and performance incentives, economic development, tuition policies and other income sources, and revisions to the funding formula. The higher education scholarship program to be supported by the new state lottery is a big concern.

Does the Formula Still Work? At its most basic level a formula has two roles: one is resource acquisition and the other is resource distribution (Manning, personal communication, September 3, 2003). According to Manning, Tennessee's formula no longer does either of these:

Ours worked really great up [through] about the '80s in both categories. And then the problem in the late '90s was it was only the distribution mechanism, it didn't have anything to do with how much money you got. And, then at the end, the last couple of years, where we have only gotten salary increases...well, even the distribution part of it wasn't being used. So it has gotten to the point where there is so much difference between what it projects and what we have that no one wants to pay any attention to it because it is more than they can afford. (personal communication, September 3, 2003)

When asked whether Tennessee's formula is a good formula or whether the state should consider scrapping the formula concept, Manning responded,

Technically it is probably a fine formula....You need a formula because you need to have a bigger argument once and then not have to argue about the way the money is distributed every year from ground zero....It has gotten too complicated; there are, what, less than five people in the state that know exactly what it does...what happens if you twist this nut just a little bit....And the confidence level in it is gone and that has to do with how complicated it is, or perceived to be at least, and the fact that we can't afford [it], both of those things together. (personal communication, September 3, 2003)

At the meeting of THEC's formula review committee held on December 17, 2002, discussions centered on the credibility of the current formula. Several factors have contributed to the decline in the formula's credibility: (a) the description is simple but the calculations are complex; (b) it does not address where higher education is going in the long-term; (c) the

formula is presented as an exact science and it is not; (d) the ratio of state appropriations to student fees has been violated; (e) it does not mirror public policy; (f) institutional budgets do not follow the formula calculations. One state official present at the meeting noted that there is no trust factor relative to the formula with the state officials who do understand the formula. The most frequent questions are why, if the formula is funded at 90%, do the institutions get *Ds* and *Fs* on the national report card, and why are there 400 teaching sites in the state. Suggestions for addressing the concerns of the legislators included: (a) higher education officials should acknowledge whether the data from peer groups incorporated into the formula are actual or aspirational; (b) legislators would be more comfortable with the formula if higher education showed the difference between budget and actual expenditures and explained why the differences occurred; (c) higher education should include all fees in the formula since the revenues and expenditures related to these eventually end up in the reports provided to the legislature. A new formula may not be needed; however, for the attitude of the legislators to change, the formula must be defined by what higher education intends to do – what higher education’s primary objectives are and how the formula will accomplish those must be reconciled. Members of the committee recognized that peer groups are what the institutions’ presidents complain about most, and nothing undermines the credibility of the formula as much as a president saying to their legislator that the formula is not fair to *my* institution that is also *your* institution. Furthermore, there are also components in the formula that have nothing to do with basic institutional needs, i.e., performance funding and desegregation funding. Additionally, across-the-board salary increases provided by the legislature are outside of the formula initially but are included later in the total state appropriation dollars used for comparison reports which skews the reporting and, therefore, the understanding of the formula.

Accountability and Performance Incentives. An element of accountability that does not often come up in discussions about performance incentives but frequently appears when needs are discussed is cost efficiencies. How well are Tennessee higher education institutions doing with the funding that they receive? Manning responded,

Look at all of the goods things that are coming out, and we are worried about retention and, hopefully, our numbers will make them look better over time and we are doing all that at 15%, or whatever it is, less than the average of our peers...we are in the bottom percentage and we are doing a damn good job of managing it. That is what I hope [the cost study will do], it will provide some good external validation that things are not way out of line and their help [suggestions for cost containment] in all of this isn't really going to be constructive. (personal communication, September 3, 2003)

Nicks approached accountability and cost effectiveness from a slightly different angle:

We...need institutions to hone their missions; not try to do everything for everybody but really work on the things that they do well and put their money there. And, the programs that are weak or not productive, they need to get rid of them. And, can't just keep saying I want you to do everything - if you're in west Tennessee I want you to do everything that Knoxville is doing over in east Tennessee. That is just not possible. Have to be really mission oriented and strong and that is not an easy job. (personal communication, September 2, 2003)

Johnson's comments supported the views of both Manning and Nicks:

I am going to editorialize for a moment. I get sick and tired of always hearing what is wrong with the administration and what's wrong with governance because we have streamlined and we have streamlined and you have seen Stanton cut and you have got people up there [at ETSU] that are doing three jobs when they use to do one and sometimes that is enough. So number one I think we have got to convince people that we are accountable and we have done a pretty good job.... And we really need to do that face-to-face with legislators, the Governor, and leading citizens and corporate leaders and community leaders and at Tri-cities and here and wherever. That is number one. (personal communication, October 22, 2003)

Moving to performance funding, Folger contended that the key to an effective performance funding program is moving it back to the “ people who are really responsible for the

learning in higher education and they are the students and teachers” (personal communication, August 21, 2003). According to Folger, “You have a real disconnect between performance funding which goes to the institution and rewards the administrators and almost none of it rewards the faculty or the students. The rewards don’t get down to the faculty, and there is no incentive for the students to do better” (personal communication, August 21, 2003).” Manning also has concerns about the effectiveness of the performance funding program:

I think we have done, by and large, what that was set out to do so we might as well stop doing that and move on to something else because now we are dealing with right on the edges...people are worried about whether they are 95% versus 100%, and you are not making a whole lot of change with it. Plus, the measures when they were created, and this is not a criticism of it at all – they really have done a lot of things, but they are really internally oriented – they are oriented toward what people in higher education care about and they aren’t oriented toward what people outside of higher education care about. (personal communication, September 3, 2003)

Manning contends that we need to move to standards that are outward oriented such as what percentage of a college’s service area actually attends college whether it is a Tennessee public college or somewhere else, and an institution’s performance should be measured on what things are being done to encourage citizens to attend college. The focus of our performance standards should be changed about every ten years and a discrete amount of money should be set aside to support these activities. Manning stated that performance funding has become so blended into the operating budgets of campuses that it has become more of a bragging right than anything else.

Economic Development. Postsecondary education is a real key institution to the social and economic future well-being of Tennessee contended most of the interviewees. However, Folger stated that “we do a better job in research and graduate than undergraduate education” (personal communication, August 21, 2003) at our universities, and faculty focus is the problem.

Undergraduate education is done better in private colleges and community college because the focus of the faculty is teaching.

Manning contends that if Tennessee higher education is to get any additional support then the formula must reflect what the priority of the state is – economic development. Although higher education is in a position to provide most of the training, the image of higher education as a workforce development tool needs some major work. Manning stated that the Governor has not yet conceptualized how the state colleges “contribute and play into [economic development] with a limited set of resources” (personal communication, September 3, 2003). Johnson also noted that the governor’s support is essential for higher education to move up on the state’s priority listing. Johnson stated,

We have got to get a Governor who understands the value of higher education. Bredeesen may. He is showing some promise of understanding what ETSU and Northeast means to upper east Tennessee and what [UT] campus means to the State of Tennessee or what Middle means or what anybody else means. But he has got to have improvement in the economy...the other thing is when I realize that 80% of the people in Tennessee never go to college, we have got a heck of a battle out there. (personal communication, October 22, 2003)

THEC has begun to develop literature and other data that are more oriented toward the economy and the importance of education to a strong economy. Manning’s early concept of an “Educated Tennessee” has begun to generate some interest although “at the grassroots level it is not there yet but there wasn’t that much talk about it other than at the policy level [initially]” (Manning, personal communication, September 3, 2003).

A recent editorial in the *Kingsport Times-News* asked and answered the question of why the state should provide higher education for its citizens:

Because the quality of a state’s education is tied directly to its economy. Businesses won’t locate or expand where educational systems are deficient, where the workforce is not trained, where government doesn’t provide support and encouragement. And it’s

important as a social issue because the quality of life erodes where educational institutions languish. (Neglect of higher education, 2003)

Johnson expanded on that idea:

We have really got to convince our legislators and our Governor that we really are important. And if you are talking about economic development – economic development with highly skilled people coming out of Northeast and ETSU and UT – without those skilled youngsters and oldsters economic development is not going to happen. It is not going to happen! ...you have got to be willing to understand the role of higher education – who are the accountants, who are the nurses, how do we improve K-12, who are the teachers, where did they come from? Let's improve our research and technology – where did the engineers come from, who are the physics', who are the chemists? Better health care – where did the doctors and nurses come from? They came out of higher education, they are not *hatched* somewhere! And we have got to get people to understand that and then make an investment in us. (personal communication, October 22, 2003)

Tuition Policies and Other Income Sources. Both Manning and R. Adams discussed increasing the tuition rates at the universities and routing more of the state appropriations into the community colleges as an alternative tuition policy (personal communications, September 3, 2003 and July 30, 2003). This would partially address access by allowing students to elect to go to the less expensive community colleges while maintaining support for both types of institutions. Nicks disagreed with this approach contending that cost alone should not be a student's deciding factor especially because our legislators consider community colleges and universities to be of equal value and are strongly pushing seamless transfer between the two types of institutions (personal communication, September 2, 2003). He would be more inclined to raise tuition rates at the junior and senior levels only. Manning and R. Adams also commented that it is possible that new state funding, should there be any, would be routed into clearing up the backlog of capital maintenance projects at the various campuses and increasing tuition rates to address operating costs (personal communications, September 3, 2003 and July

30, 2003). R. Adams expressed that he thought it unfair to ask students to support the cost of maintaining campus buildings (personal communication, July 30, 2003).

Johnson expressed concern that improved funding for higher education cannot come from students nor can it come from raising private dollars. Johnson stated,

You can't tell us to do better and better and better and cut us 5% and 9% and 5% and say streamline and be more accountable, get your administration straight....we have been doing that for 20 years, Governor McWherter preached it, Governor Alexander preached it, Governor Sunquist preached it and now Governor Bredesen preaches it, *I understand it. We have heard the message.* So I think we have accountability and the importance of higher education to economic development, cultural, intellectual, and racial well-being and then you have got to put some money into it, you *can not* do it, and we shouldn't do it, on the backs of students. And we can raise private dollars but you can't raise enough private dollars to offset a shortcoming in state money. A billion dollar endowment will generate \$50 million a year. And UT's total – we've got an endowment of \$750 million and our total budget is \$1.4 billion and if we [have] endowments producing \$35 million a year, we are going to solve our problems with private gifts? No. I have been a fundraiser all of my life. (personal communication, October 22, 2003)

After adjusting for inflation, Tennessee's median annual tuition and fees rose 41.2% between 1997 and 2002 compared to a 27.9% increase in the SREB states (SREB Fact Book, 2003).

Lottery. Folger contends, “what you wind up with in any of these lottery based scholarships is the working class is supporting the lottery and the beneficiaries of it are the sons and daughters of the upper-middle class” (personal communication, August 21, 2003). This will not result in a greater number of people attending college but might result in more students who were going to college out-of-state staying in the state. Based on her observations of what has happened in other states, Albright is concerned that the universities will have a large influx of students due to the higher scholarship award provided when a student attends a university and very little additional funds to support activities necessary to serve those students (personal communication, September 2, 2003). An additional concern is that Tennessee will get tuition

and fee control from the state because if fees go up then the lottery scholarships must go up to offset the fee increase. Other interviewees expressed concerns similar to Folger and Albright.

CHAPTER 5

ANALYSES, CONCLUSIONS, AND RECOMMENDATIONS

The purpose of this chapter is to provide analyses, conclusions, and recommendations based upon the study. Analyses are presented first followed by conclusions drawn from the study. Recommendations are presented last and include recommendations for further studies.

Analyses

Early History and Problems Presented by Funding

Tennessee was slow to provide public support for its higher education institutions. The early colleges in Tennessee were privately funded, and most were small and uneconomical to operate. Low enrollments and low faculty salaries plagued the institutions. Many of them teetered between being high schools and being colleges as they were forced by financial need to accept students that were underprepared for college work. The University of Nashville was forced to close its doors in 1852 primarily due to a lack of support, both from the state and the citizens of Tennessee. It was not until the turn of the century that the University of Tennessee began to receive regular appropriations from the state, and the state invested funds into a system of normal schools. By the early 1920s Tennessee was significantly below the rest of the nation in the proportion of its citizens attending college due in large part to the lack of financial commitment to higher education. The 1924 study commissioned by the Tennessee College Association warned that the state could certainly support quality higher education, and if its leadership chose not to provide the necessary support one of two things would happen: progress

would not occur in the state or outside entities would provide the necessary support and Tennessee would “pay tribute” to other states.

Formula Funding

Tennessee moved to formula funding primarily for two reasons: a formula provided an objective means of identifying institutions’ needs and state officials wanted to remove themselves from the political haggling so prevalent in the funding structure. Funding higher education using an objective formula was not a novel idea, in fact, a move in this direction had already occurred in many states (see discussion on page 18). Tennessee’s first attempt at formula funding occurred in 1961 when Dr. Ed Boling, who was a part of the budget staff in the Department of F&A, wrote his doctoral dissertation on objective methods for funding higher education and received permission from the General Assembly to apply a base budget formula to the appropriations request for the state’s regional universities. Development of a formula for “fair and equitable” funding for higher education was one of the mandated duties of the THEC created by the General Assembly in 1967.

The establishment of THEC provided a layer of insulation between the political leaders of the state and the presidents of the colleges and universities. Prior to the creation of THEC and the development of formula funding, intense competition for funding existed between the higher education institutions, and each president applied tremendous pressure on their local legislators to obtain increasing state support for their local college or university. No one was looking out for statewide interests. The creation of THEC and a discussion of the political atmosphere of the state relative to higher education funding prior to the creation of THEC are discussed in Chapter 4.

Changes to the Formula and the Introduction of Peer Institutions

Developing the formula was a learning experience for both Tennessee's higher education institutions and their governing and coordinating boards. Modifications to address "fair and equitable" distribution of funding were necessary especially during the early years of using the formula (see discussion on pages 85-92). Other changes such as the addition of a component to address desegregation were driven by state policy. The addition of performance funding, Chairs of Excellence program, and the Centers of Excellence and Centers of Emphasis programs were efforts to move away from strictly enrollment driven funding toward funding to promote quality. As discussed in Chapter 4, Tennessee's movement toward funding quality paralleled what was happening nationally at that time. Introducing enrollment ranges to address marginal versus fixed costs also paralleled national trends to move away from strictly enrollment driven formulas. The introduction of peer institution comparisons in 1980 accomplished two objectives: (a) by emphasizing institutions' missions, this move addressed some of the equity problems inherent in using cost data as a basis for calculating needs of the individual institutions, especially for the small institutions, and (b) by looking outward at the resources provided to higher education in other states, Tennessee could identify the level of financial commitment necessary to move the state forward rather than just funding the status quo.

Peer group comparisons were first introduced into the formula in 1985-86 and the peer groups were selected from across the 50 states. The initial introduction included four peer groups and each group included some national peers. A major modification to peer groups occurred in 1994-95 when the peer groups were expanded and only SREB institutions were included in the groups. Effective with the 1994-95 revision, all of the regional universities,

UTC, and UTM shared a core group of seven peers and then selected three unique peers for each institution; the community colleges shared a core group of ten peers, and UTK and UM each had their own unique group of 10 peers. The 1994-95 revision was undertaken, by and large, because of legislative concerns that the national peer groups were too aspirational. As it turned out, the peer data averages actually increased with the move to SREB institutions only.

It is the consensus of most persons involved with the formula that peer groups are the most controversial issue relative to the formula. The regional universities' presidents have been especially unhappy with the peer group selections contending that the core group of seven does not represent the uniqueness of each institution's mission. Community college presidents have been less concerned with sharing a group of ten peers primarily because the 1994-95 revision increased the average faculty salary dollars used in the formula for community colleges. It has been 10 years since the last modification to peer groups, and the persons involved with the formula agree that it is time to revisit this issue. Alignment with the institutions' missions and the inclusion of some aspirational peers are likely modifications.

Financial Analyses

The percentage of formula-identified resource requirements actually funded by state appropriations steadily declined throughout the 1990s and was at 88.3% in 2001-02. Recommendations made by the executive branch have consistently been lower than the formula-identified requirements. Actual funds appropriated during the same time period exceeded the executive branch recommendations in all except the last two years analyzed. Across-the-board salary increases, increases for state provided employee fringe benefits, and one-time appropriations to support specific projects have significantly influenced this comparison. Should

one choose to define institutions as state-supported when the state provides more than 50% of the schools' revenue and as state-assisted when revenue from state appropriations drops below 50%, then most, if not all, Tennessee schools are well on their way to being state-assisted schools.

Analysis of the two systems' expenditure patterns indicates that no significant shift of resources from one function to another has occurred even in light of the declining state support. A small decline in expenditures for instruction is evident; however, more disturbing is the steady decrease occurring from year-to-year and the fact that even a small percentage change equates to significant dollars. A shift of costs from the state to other sources was evident from the revenue analysis. The percentage of revenues from student tuition and fees at TBR institutions has increased approximately 10% over the 10-year period. Student tuition and fees increased 5.5% at UT and other revenue sources increased approximately 3% during the same period.

Changes to Structure, Policies, and Procedures

Numerous thoughts and ideas emerged relative to changes to structure, policies, and procedures to improve the way funding requirements are identified; however, most can be lumped into a few broad categories. Thoughts on structure primarily centered on changes to the state's revenue structure; the governance structure of higher education; and the importance of leadership, image, and trust. Thoughts on policies and procedures were more detailed and included revisions to the formula, modifications to accountability and performance incentives, incorporating higher education's economic development role into the state's agenda, and revisions to the tuition policies to tackle the shift from state support to greater costs borne by students.

A major overhaul of the state's tax structure is necessary to stop the erosion of state support of higher education and to increase funding long-term. However, the current political environment of the state does not favor such a radical change, and higher education must look for other ways to address their funding issues. A change in the governance structure of higher education would not make a tremendous difference to the financial resources but could improve the coordination between the various institutions and improve the image of higher education with the legislature. Strong leadership from the lay board members and the executive management of the boards and institutions is necessary for higher education to become once again a priority within the state. Higher education officials' negative mindset must be reversed.

Dismal funding prospects make it essential for higher education to address operational issues. Revisions to the formula should be undertaken to bring it up-to-date as a tool to predict financial needs and to align the formula calculations with the missions and objectives of the various institutions. Full and fair disclosure of financial data is necessary to reestablish credibility in the numbers produced by the formula. Accountability and performance incentives must be aligned with state goals and publicized to the state leadership and the citizens of the state in an understandable manner. Higher education leadership must ensure that the state's leaders view higher education as a vehicle for economic development within the state. To a limited degree, tuition policies can be used to steer resources to allow a greater number of citizens access to higher education. However, major improvements in access and quality in Tennessee's higher education institutions will not occur without a strong financial commitment from the state. Student fees and private fundraising cannot be a substitute for state support. The impact of the new lottery scholarship program is a grave concern considering that no additional state resources are likely to be available to support the increased number of students. Additionally, considering

the direct relationship between the lottery scholarships and tuition charges, pressure may be brought on higher education to limit tuition and fee increases to keep them in line with funds available for lottery scholarships.

Conclusions

Tennessee's journey to develop and support a system of higher education is analogous of Dorothy's trip down the yellow brick road. New ideas picked up along the way have required adjustments and accommodations, and obstacles have had to be overcome. Despite the creation of THEC – the Wizard of Oz – politics have remained a part of higher education funding. In fact, the two are so intertwined that it is impossible to discuss one without discussing the other as is evidenced by this study. Historical data indicate the three major revisions to the formula were driven by a lack of state resources to support needed funding for higher education and continuing political involvement in higher education. Each revision was preceded or succeeded by actions on the part of the legislature.

Following the 1980-81 formula revision and preceding the 1985-86 revision, a program evaluation on the THEC was conducted by the Comptroller of the Treasury at the request of the legislature. The first major conclusion in this report focused on the funding formula and its impact upon the individual institutions (see discussion on page 97). The purpose of the review, as stated in the Comptroller of the Treasury's letter transmitting the report to the General Assembly, was to aid the Joint Government Operations Committee in its determination of whether the THEC should be continued, abolished, or restructured. In 1982 a comprehensive study of education, including higher education, was mandated by the General Assembly (Senate Joint Resolution No. 56). Recommendations made by the task force relative to using peer comparison data in the formula were incorporated into the 1985-86 formula revisions. The

1994-95 and 1995-96 formula revisions were driven by another legislative mandate – Senate Bill 2820; House Bill 2760, Amendment. In addition to requiring a “detailed review and analysis of the funding formula,” THEC was required to regularly update the education committee of the legislature on its progress toward a revised formula.

Despite the numerous studies and reports, starting with Merriam’s 1893 *Higher Education in Tennessee*, identifying poor state support, low faculty salaries, and under-prepared students as continuing problems for Tennessee’s higher education institutions, 106 years later the 1999 study conducted by the Governor’s Council on Education identified the same conditions as problems for higher education. However, Tennessee has had peaks where progress was made – a 433.4% increase in state support occurred over a nine-year period from 1947 to 1956; and, during the latter part of the 1980s, Tennessee ranked in the middle nationally on measures related to per capita appropriations. Tennessee’s ranking among SREB schools during that time exceeded the average.

Tennessee’s regressive tax structure has contributed to the state’s funding problems overall, and especially to poor funding for higher education as the largest discretionary item in the state’s budget. Possibly the one aspect of state government that has been studied more often and modified less effectively than higher education is the state’s tax structure. In addition to the studies of state economic conditions included in each higher education study, numerous studies directed specifically at the state’s tax structure have been conducted. The interim report of the Special Joint Legislative Task Force on State and Local Tax Structure to the 93rd General Assembly showed that 24 different selected studies on state taxes were undertaken between 1915 and 1983 (Reynolds, 1984).

The state's major source of revenue in 1982 was general sales taxes and remains so today. The 1982 report stated,

The elasticity of a state's tax structure is a function of the elasticity of each of the separate tax sources and the relative importance of each in a state's overall revenue system. Tennessee's tax structure is inelastic since most of its major taxes have low elasticity. To the extent that the demand for governmental services tends to keep pace with increases in personal income, an inelastic revenue system will continually impose pressure on a state's budget – demand for services will grow faster than revenues to support services. This has been true in Tennessee. (Reynolds, 1984, p. 23)

This is true in Tennessee, and higher education funding has borne the brunt of it as funding has continued to decline as a proportion of the total state budget. The reader is directed to the financial analysis section of this study for further discussion. Higher education is no longer a priority in Tennessee and can expect little new funding without an overhaul of the current tax structure. Each new infusion of funding into higher education has been preceded by an increase in the sales tax rate and the latest sales tax increase enacted with the 2003 budget year brought a similar increase to funding for higher education. However, the revenue projections generated from the sales tax increase proved unrealistic and a mid-year 5% impoundment on higher education's appropriations was necessary. This was followed by a 9% base budget reduction across-the-board for all state agencies including higher education. Higher education has been requested to provide proposals for another 5% reduction in funding for the 2004-2005 fiscal year.

The funding formula has moved Tennessee higher education institutions closer to "equitable and fair" funding among the institutions since its application in the early 1970s. However, it has not performed miracles – it has not solved the problem of insufficient funding. Darling, England, Land, and Lopers-Sweetman noted in 1989 the tendency of states to expect funding formulas to offset in some way the effect of underfunding (see page 46 for further

discussion) and Tennessee, like other states, appears to expect that it will. Both the 1982 and 1994 studies were motivated by revenue squeezes experienced by the state. Furthermore, the progress made toward equitable funding will soon erode should the policy of applying decreases across-the-board continue. In the comprehensive study undertaken in 1982, the task force noted the unfairness of across-the-board budget adjustments to individual institutions. Enrollment growth or decline, and/or the abilities of larger institutions to absorb the cutbacks as opposed to smaller ones are not taken into consideration when across-the-board decreases are imposed.

Educating students is the mission of higher education and students equate to enrollments. As McKeown and Layzell (1994) stated there is no perfect formula (see page 13); however, any formula used to fund higher education must address enrollments. A well-trained workforce is of paramount concern to the citizens of any state, and, therefore, to state officials, and colleges and universities provide a ready means for the training but that equates to increased enrollments and increased funding to support the enrollments. As one member of the 2002 formula review committee stated, considering a formula that does not include enrollments is as “dumb as dirt.” Quality education is the expectation of all of higher education’s constituents: students, parents, taxpayers, state officials, employers, and all higher education officials. Therefore, any formula used to fund higher education must have a way to address quality in educational activities.

Tennessee’s formula contains most of the elements that have been brought forward in the literature over the years as indications of a *good* formula, and it addresses several of the disadvantages of formula funding as discussed in Chapter 2 of this study. It recognizes enrollment changes but it also contains enrollment ranges to recognize marginal costs and discourage extraordinary recruitment of students. The enrollment range element also provides for stability of funding during periods of declining enrollments allowing institutions two funding

cycles to align their operations with the reduced enrollments. The formula provides for fixed and variable costs for functions other than instruction, such as libraries, student services, and institutional support. The operation and maintenance of physical plant component provides for recognition of aging facilities, utility costs, and costs associated with rental space. Research and public service activities are supported but should be adjusted to better reflect the state's intended mission for individual institutions. A component exists for replacement of instructional equipment that could perhaps use some tweaking to better align equipment replacement cost with institutional missions, i.e., technology intensive missions require larger equipment outlays as do science and engineering missions. Income from auxiliary activities should be made available to support athletics and this activity removed from state funding. The use of peer institutions, a provision for performance funding, funds designated for Centers of Excellence and Centers of Emphasis programs address quality issues relative to funding. Using peer group comparisons also assures that the formula base for instruction and library support remains current.

Higher education institutions in Tennessee are complex and so are their finances. Reading and understanding the budget and financial reports of higher education institutions is a difficult task for someone familiar with the Tennessee reporting format and an almost impossible task for laypersons. The line between formula and non-formula units are blurred and legislative amendments outside the formula skew comparisons. Hold-harmless provisions for institutions with declining enrollments decrease the credibility of the formula as a predictor of need. Deciphering data that have been combined for simplification is a time-intensive and frustrating process. Reports reflect varying data depending on the focus of the particular report and all are accurate within the parameters selected for compiling the data. However, this variation from

report to report contributes to misunderstandings and a sense that numbers are being manipulated which leads to an environment of distrust.

Recommendations

Recommendations for Increased Financial Commitment

Higher education must become a priority in Tennessee and increased state funding must support this priority. Both teaching and research functions of the institutions must be sufficiently supported to allow the institutions to attract and retain top-quality faculty and researchers. *The SREB Fact Book on Higher Education 2003* showed average faculty salaries in Tennessee dipped to 87.9% of the United States average at four-year colleges and the faculty salaries at two-year colleges dipped to 80.6% of the national average. Adequate support to insure access to higher learning for all citizens that desire to improve their quality of life is essential.

In 1924, 1957, 1982, and 1999 poor state support and low faculty salaries were cited as problems for Tennessee's higher education system. Each of these studies also emphasized the impact this lack of support has upon the economic development of the state and, therefore, the quality of life of the citizens of the state. If Tennessee is to compete nationally and internationally, it can no longer afford to ignore the role of higher education in the economic development of the state. The easy road is to demand more accountability and more efficiency from the higher education officials and to point fingers at the institutions when they fall short of the rest of the nation in terms of rankings in number of citizens obtaining a minimum of a bachelor's degree or when they are not ranked among the top research and doctoral schools. The more difficult road is to assess and modify the tax structure of the state to provide revenues

sufficient to properly support its higher education institutions. Tennessee state officials must elect to address the revenue problems of the state or face the fact that the state will always have mediocrity in its higher education system and the economic development of the state will always lag behind other states and other nations.

Recommendations for Changes to Policies and Procedures

Tennessee higher education officials must clearly define missions for each institution that mirror state policy and statewide interests and expectations. Peer group selections should align closely with the defined missions. Building aspirations into the peer group selection is a worthwhile goal; however, there must be assurance that all parties are aware of, and agree to, the parameters within which peer groups will be defined.

Tennessee state officials must make a firm commitment to funding levels over a long-term period to promote long-range planning. Negotiated tuition/state appropriation ratios must reflect what the state is willing and able to provide in terms of support for higher education and state officials must honor their commitment. Tiered tuition rates for undergraduate students – one rate for freshmen and sophomores and a higher rate for juniors and seniors – should be considered to remove college costs from the college selection equation for students. The new lottery scholarships should mirror any revisions to the tuition policy.

Rates used in non-instruction areas of the formula must be reviewed regularly to ensure they accurately reflect the costs associated with providing those services. Insufficient funding in any areas of the formula impacts the instruction function, albeit indirectly. This could be accomplished by evaluating these areas in terms of costs incurred by local service organizations or by using peer data in areas other than instruction and library support.

Data reported by higher education must be clarified. Baseline data should be developed that all reports either originate from or reconcile to in order to establish credibility of reporting. Variations must be fully explained and assumptions fully disclosed to avoid misunderstandings.

Recommended Changes to Governing Structure

Tennessee must have a coordinating board with power to approve, disapprove, and/or terminate programs that are not within the mission of individual institutions and are not within the long-range plans of the state. The coordinating board should have authority to withhold funding for activities that have not been approved. Lay members of the boards must be influential, committed, and engaged with higher education. Higher education officials must educate the board members, both coordinating and governing boards, about the formula and provide them with literature that explains in detail each component of the formula and how non-formula costs are addressed. Each institution should have a local advisory board that promotes, directs, and supports the local institution and provides guidance for what is best for the local economy. Members of the local board should also be influential, committed, and engaged with higher education; however, recent graduates should also be included on the local board to ensure that student concerns are understood and addressed.

Recommended Changes to Quality Incentives

Stringent standards for evaluating retention and graduation rates should be incorporated into performance evaluations. Performance funding has traditionally focused on instructional quality, which directly impacts student graduation and retention rates; however, student support activities such as counseling, career guidance, tutoring, and financial assistance have an equally

tremendous impact on student success. Funding for performance outside of the formula should be earmarked to support increased student services costs associated with these activities.

Performance funding cannot continue to be an administrative reward; incentives must be built into the program to involve faculty and students. Establishing evaluation standards at the department level and providing additional operating and professional development funding to departments that show outstanding results could accomplish this. Funds provided to support performance funding should not be included in the base funding of the institutions where it becomes just another source of funding to support operations.

Funding for quality initiatives should be used more effectively. For example, place the Centers of Excellence, Centers of Emphasis, and Chairs of Excellence programs on a five-year review cycle and modify, reallocate, and expand as indicated by the evaluation results.

Recommendations for Further Study

This study reviewed higher education funding from the perspective of university and community college presidents, administration staffs of the boards, and state officials. No attempt was made to incorporate the perspective of lay board members into the study. Additional study to incorporate this important faction would expand the usefulness of the study.

A limited financial analysis is provided in this study targeted primarily toward trends in resource acquisition and functional expenditures relative to current operations of those units defined as academic formula units. Non-formula units, capital outlay expenditures, and activities supported by restricted resources were not addressed. However, given the complex nature of higher education institutions and the numerous activities undertaken by these organizations, a simple trend analysis falls short of explaining the intra-relationship of various revenue and

expenditure transactions that take place at any given institution or for any given year of operation. No attempts to link revenues and expenditures to institutional missions were made although an institution's mission should drive its financial activities. An in-depth study of all financial activities and their relationship to resource acquisition is recommended.

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APPENDICES

APPENDIX A

PRELIMINARY INTERVIEW GUIDE

PRELIMINARY INTERVIEW GUIDE

1. Tell me about your role in regard to higher education funding in Tennessee.
2. What was it like before the funding formula was developed to identify the resource needs for the colleges and universities in Tennessee?
3. Can you tell me why Tennessee decided to use a formula approach for funding colleges and universities?
4. What was it like during the transition to a funding formula? Was there resistance to the change?
5. Can you tell me why modifications have been made to the funding formula?
6. What purpose(s) were “peer institutions” expected to serve?
7. Can you tell me how and by whom “peer institutions” are selected?
8. Tell me about your role in regard to performance funding.
9. In your opinion, what changes should be made in state structures, policies and procedures to improve funding in Tennessee colleges and universities?
10. Since you are so knowledgeable about the funding process, what questions should I have asked that I did not?
11. Are there other individuals that you feel would be beneficial for me to interview to obtain further information on the history of higher education funding in Tennessee?

APPENDIX B

Notification of Informed Consent

Principal Investigator: Claire Stinson

Title of Project: A Historical Review and Financial Analysis of Higher Education Funding in Tennessee

This Informed Consent will explain about being a research subject in an experiment. It is important that you read this material carefully and then decide if you wish to be a volunteer.

PURPOSE: The purpose of this study is to gather information on the funding history of higher education in Tennessee from experts in this field. This information will be useful in the identification of successes and failures in past methods used to fund higher education.

DURATION: Your participation in this project is expected to require one to three hours for the initial interview. Follow-up questions and your review of the translated interview notes are expected to require an additional one to three hours.

PROCEDURES: You will be asked to participate in a face-to-face interview with the investigator. You will be asked to respond to general questions on the subject and to provide additional information and insights that the investigator may not have considered. All interviews will be tape recorded and transcribed by the investigator. You will have an opportunity to review the transcription of your interview and to change responses or add to your response.

POSSIBLE RISKS /DISCOMFORTS: The population for this study is very limited; therefore, participants may be identified and confidentiality could not be maintained. The names of participants interviewed for the study will be included in the appendix to the research document.

POSSIBLE BENEFITS and/or COMPENSATION: A historical review of Tennessee higher education funding can be informative in designing a new or improved method of higher education funding. No direct benefit to you is expected. You will not be compensated for participating in this research project. An executive summary of the completed study will be provided to you should you desire to receive that information.

CONTACT FOR QUESTIONS: If you have any questions, problems, or research-related medical problems at any time you may call Claire Stinson at (423) 239-5870, or Dr. Terry Tollefson at (423) 439-7657. You may call the Chairman of the Institutional Review Board at (423) 439-6134 for any questions you may have about your rights as a research subject.

CONFIDENTIALITY: I understand that the population for this study is limited and because of this, participants may be identified and confidentiality could not be maintained. The results of this study may be published and/or presented at meetings; however, I will only be quoted by name if I give my permission to be quoted directly. I will be provided an opportunity to review the transcription of my interview and to change or add to my responses to ensure accuracy of the transcription, and I will be provided an opportunity to edit out any remarks that I am

uncomfortable with having included in the research results. A copy of the records from this study will be stored in the Investigator's home at 100 Winterbrook Drive, Kingsport, Tennessee, for at least 10 years after the end of this research. The Secretary of the Department of Health and Human Services, the East Tennessee State University Institutional Review Board, and research related personnel from the ETSU Department of Educational Leadership and Policy Analysis have access to the study records.

VOLUNTARY PARTICIPATION: The nature, demands, risks, and benefits of the project have been explained to me as well as are known and available. I understand what my participation involves. Furthermore, I understand that I am free to ask questions and withdraw from the project at any time, without penalty. I have read, or have had read to me, and fully understand the consent form. I sign it freely and voluntarily. A signed copy has been given to me.

- I give my permission to be quoted by name in the completed study.
- I do not give my permission to be quoted by name in the completed study.

SIGNATURE OF VOLUNTEER

DATE

SIGNATURE OF INVESTIGATOR

DATE

APPENDIX C

CHRONOLOGY

| YEAR | | EVENT |
|-------------|------|--------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1785 | | Davidson Academy founded |
| 1794 | UTK | Blount College was established at Knoxville |
| 1796 | | Tennessee was admitted as a state of the Federal Union |
| 1803 | | Davidson Academy became Davidson College |
| 1806 | | Davidson College became Cumberland College |
| 1807 | UTK | East Tennessee College chartered and combined with Blount College |
| 1826 | | Cumberland College became the University of Nashville |
| 1831 | | First state appropriation made to higher education |
| 1850 | | University of Nashville closed its doors to undergraduate degrees except for teacher training at the Peabody College |
| 1869 | UTK | East Tennessee College at Knoxville designated state's land-grant college under the Morrill Act of 1862 |
| 1879 | UTK | East Tennessee College at Knoxville became the University of Tennessee |
| 1883 | | Tennessee exempted land used for educational purposes from taxation |
| 1886 | UTC | University of Chattanooga was established as a private college |
| 1903 | | First state appropriation made to the University of Tennessee |
| 1909 | | General Assembly passed the General Education Bill including provisions for higher education in statutes |
| 1911 | ETSU | East Tennessee State Normal School established in Johnson City, TN |
| 1911 | MTSU | Middle Tennessee State Normal School established in Murfreesboro, TN |
| 1911 | | The UT Center for the Health Sciences was established in Memphis, TN |
| 1912 | TSU | Tennessee Agricultural and Industrial Normal School established in Nashville, TN as state's 2 nd land-grant college under the Morrill Act of 1890 |
| 1912 | UM | West Tennessee Normal School established in Memphis, TN (became the University of Memphis) |
| 1915 | TTU | Tennessee Polytechnic Institute established at Cookeville, TN |
| 1925 | UM | West Tennessee Normal School became State Teacher's College |
| 1925 | MTSU | Middle Tennessee State Normal School became Middle Tennessee Teacher's College |
| 1927 | APSU | Austin Peay State University established as a normal school and junior college in Clarksville, TN |
| 1927 | UTM | Hall Moody College became UT Junior College (Martin, TN) |
| 1943 | MTSU | Middle Tennessee Teacher's College became Middle Tennessee State College |
| 1951 | UTM | UT Junior College was granted college status and became UT College at Martin |
| 1953 | | Frank Clement inaugurated governor (D) |

| YEAR | | EVENT |
|-------------|-------|------------------------------------------------------------------------------------------------------------------------|
| 1957 | UM | State Teacher's College became Memphis State University |
| 1959 | | Buford Ellington inaugurated governor (D) |
| 1963 | | Frank Clement inaugurated governor (D) |
| 1963 | | General Assembly authorized technical institutes and vocational-technical schools |
| 1963 | ETSU | East Tennessee State College received university status |
| 1965 | MTSU | Middle Tennessee State College received university status |
| 1965 | | General Assembly authorized the establishment of the first three community colleges, one in each grand division |
| 1966 | NSTCC | Tri-Cities Area Vocational-Technical School enrolled its first students |
| 1966 | COSCC | Columbia State Community College enrolled its first students |
| 1967 | | Buford Ellington inaugurated governor |
| 1967 | CLSCC | Cleveland State Community College enrolled its first students |
| 1967 | JSCC | Jackson State Community College enrolled its first students |
| 1967 | SWCC | State Technical Institute at Memphis enrolled its first students |
| 1967 | APSU | Austin Peay State College received university status |
| 1967 | UTM | UT College at Martin became UT at Martin |
| 1967 | | General Assembly authorized three additional community colleges, one in each grand division |
| 1967 | | Tennessee Higher Education Commission (THEC) created |
| 1969 | | University of Tennessee established a new governing system becoming a system |
| 1969 | UTC | University of Chattanooga became the UT at Chattanooga |
| 1969 | DSCC | Dyersburg State Community College enrolled its first students |
| 1969 | MSCC | Motlow State Community College enrolled its first students |
| 1970 | NSCC | Nashville State Technical Institute enrolled its first students |
| 1969 | | General Assembly authorized three additional community colleges, one in each grand division |
| 1970 | WSCC | Walter State Community College enrolled its first students |
| 1971 | | Winfield Dunn inaugurated governor (R) |
| 1971 | VSCC | Volunteer State Community College enrolled its first students |
| 1971 | RSCC | Roane State Community College enrolled its first students |
| 1972 | SWCC | Shelby State Community College enrolled its first students |
| 1972 | | State University and Community College System of Tennessee (TBR) created |
| 1973 | CSTCC | Chattanooga State Technical Community College was established in Chattanooga, TN |
| 1974 | PSTCC | Knoxville Area Vocational-Technical School became State Technical Institute at Knoxville |
| 1974 | | Performance Funding Project began |
| 1975 | | Ray Blanton inaugurated governor |
| 1978 | NSTCC | Tri-Cities Area Vocational-Technical School became Tri-Cities State Technical Institute |

| YEAR | | EVENT |
|-------------|-------|-----------------------------------------------------------------------------------------|
| 1979 | | Lamar Alexander inaugurated governor |
| 1979 | | First performance funding added to formula |
| 1979 | TSU | TSU merged with the former UT at Nashville under Federal District Court order |
| 1983 | | Lamar Alexander's 2nd term |
| 1984 | | Centers of Excellence created |
| 1984 | | Chairs of Excellence created |
| 1986 | | Centers of Emphasis created |
| 1990 | NSTCC | Tri-Cities State Technical Institute became Northeast State Technical Community College |

VITA

Personal Data: Date of Birth: November 27, 1955
Place of Birth: Richlands, Virginia
Marital Status: Single

Education: Public Schools, Honaker, Virginia
Southwest Virginia Community College, Richlands, Virginia
Accounting, A.A.S., 1976
University of Virginia's College at Wise, Wise, Virginia
Business Administration with a concentration in Accounting, B.S., 1991
East Tennessee State University, Johnson City, Tennessee
Accounting, M. Acc., 1995
East Tennessee State University, Johnson City, Tennessee
Educational Leadership, Ed.D., 2003

Certifications: Certified Public Accountant, 1991

Professional Experience: Senior Accountant – Southwest Virginia Community College, Richlands, Virginia, 1976-1989
Baylor and Backus Certified Public Accountants, Johnson City, Tennessee, 1991-1992
Director of Accounting – Northeast State Community College, Blountville, Tennessee, 1992-1997
Adjunct Faculty – Virginia Intermont College, Bristol, Virginia, 1996-Present
Business Manager – Northeast State Community College, Blountville, Tennessee, 1997-2000
Vice President for Business Affairs – Northeast State Community College, Blountville, Tennessee, 2000 – Present

Professional Presentations: Tennessee Board of Regents, Internal Audit Committee, GASB 35 and Cash Flows, Nashville, Tennessee, October 1999
Southern Association of College and University Business Officers, Fall Workshop Accounting Track, Memphis, Tennessee, November 1999
Southern Association of College and University Business Officers, Basic Institutional Accounting and Cash Flows, Northeast State Community College, Kingsport, Tennessee, November 1999
Southern Association of College and University Business Officers, Basic Institutional Accounting and Cash Flows, Auburn University, Auburn, Alabama, February 2000
Southern Association of College and University Business Officers, Basic Institutional Accounting and Cash Flows, West Virginia University, Morgantown, West Virginia, May 2000

Association of College and University Auditors, GASB 35, Montreal, Canada, September 2000

Southern Association of College and University Business Officers, Fall Workshop Accounting Track, Atlanta, Georgia, November 2000

Southern Association of College and University Business Officers, Basic Institutional Accounting and Cash Flows, University of Texas at Dallas, Richardson, Texas, November 2000

Massachusetts State Colleges, GASB 35 and Cash Flows, Sturbridge, Massachusetts, January 2001

Southern Association of College and University Business Officers, Basic Institutional Accounting, Jackson State University, Jackson, Mississippi, April 2001

Southern Association of College and University Business Officers, Cash Flows – Direct Method, Texas Higher Education Commission, Austin, Texas, May 2001

Southern Association of College and University Business Officers, Fall Workshop Accounting Track, Atlanta, Georgia, November 2001

Massachusetts State College, GASB 35 and Cash Flows, Sturbridge, Massachusetts, January 2002

Massachusetts State College, GASB 35 and GASB 39, Lenox, Massachusetts, June 2002

Professional

Memberships:

American Institute of Certified Public Accountants, 1991-2003

Virginia Society of Certified Public Accountants, 1991-2003, member of the Not-for-Profit Committee, 1996-1998,

Southern Association of College and University Business Officers, Chair of Community College Committee, 1998-2000 and member of this committee 1995-1997

National Association of College and University Business Officers, Community College Council 1998-2000

Southern Association of College and University Business Officers, Board of Directors, Member-at-Large, 2001-2002

Southern Association of College and University Business Officers, Drive-In Workshop Director, 2001-2003

Southern Association of College and University Business Officers, Board of Directors, Secretary, 2003

Honors and

Awards:

Outstanding Accounting Student – University of Virginia at Wise, 1991

Outstanding Student – Managerial Accounting – East Tennessee State University, 1995

Outstanding Student – Financial Accounting – East Tennessee State University, 1995

Outstanding Workshop Coordinator, Southern Association of College and University Business Officers, 1997