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Perceptions of Tennessee Community College Leaders Regarding External Mandates, Institutional Effectiveness Practices, and Institutional Performance

Gary J. Skolits
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PERCEPTIONS OF TENNESSEE COMMUNITY COLLEGE LEADERS REGARDING EXTERNAL MANDATES, INSTITUTIONAL EFFECTIVENESS PRACTICES, AND INSTITUTIONAL PERFORMANCE

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

by
Gary J. Skolits
December 1999
APPROVAL

This to certify that the Graduate Committee of

Gary J. Skolits

met on the

2nd day of August, 1999.

The committee read and examined his dissertation, supervised this defense of it in an oral examination, and decided to recommend that this study be submitted to the Graduate Council, in partial fulfillment of the requirements for the degree of Doctorate In Education.

Chairman, Graduate Committee

Signed on behalf of the Graduate Council

Dean, School of Graduate Studies
ABSTRACT

PERCEPTIONS OF TENNESSEE COMMUNITY COLLEGE LEADERS REGARDING EXTERNAL MANDATES, INSTITUTIONAL EFFECTIVENESS PRACTICES, AND INSTITUTIONAL PERFORMANCE

By

Gary J. Skolits

The purpose of this study was to examine the perceptions of academic and administrative community college leaders regarding the relationship between select external mandates and associated institutional effectiveness practices, institutional performance, and the use of assessment results for institutional improvement in Tennessee community colleges. Tennessee community colleges were selected for this study due to their decades long history with institutional assessments through the performance funding program. A primary assumption underlying this study was that Tennessee community colleges provide a historically unique assessment context for this study.

The researcher developed a specific survey instrument for this study. The design of the survey provided for the measurement of the perceptions of academic and administrative community college leaders with regard to: (1) knowledge of external mandates; (2) assessment of compliance with regional accreditation mandates of the Southern Association of Colleges and Schools (SACS) as well as planning requirements of the Tennessee Board of Regents (TBR); (3) the perceived impact of these mandates on institutional practices; (4) the overall associated performance of their institutions on selected performance assessments; and (5) use of assessment results for institutional improvement. Leaders were grouped into categories representing academic, administrative, and joint academic and administrative job duties.
Several findings were derived from this study. First, Tennessee community college leaders tend to be knowledgeable of external mandates. Second, SACS institutional effectiveness mandates have tended to have a moderate to strong influence on Tennessee community colleges, followed by the influence of SACS institutional research mandates. The influence of state planning mandates received a mixed evaluation, with planned-changed mandates, (i.e. progress toward key system goals) perceived as having less of an impact as a mandate compared to the others considered. On the positive side, Tennessee community colleges do tend to follow state planning mandates promoting assessment of the external environment as an integral part of the institutional planning process. Further, a moderate correlation was found between compliance with SACS institutional effectiveness mandates and both dependent study variables: (1) institutional performance; and (2) the use of assessment results for institutional improvement. Other study variables had weak to somewhat moderate relationships with the dependent variables. Several recommendations were offered for institutional practitioners as well as future community college researchers.
DEDICATION

Education, as the ultimate foundation of a free and democratic society, is especially made possible by the sacrifice of the men and women who gave their lives in service to their country. I am especially honored and proud to dedicate this dissertation to the memory of one of these truly special citizens, Wayne Edward Skolits (1947 - 1968).
ACKNOWLEDGMENTS

I am pleased to thank my committee chair, Dr. Terry Tollefson, and committee members Dr. Norma MacRae, Dr. Russell Mays, and Dr. Russell West for their support and encouragement throughout my doctoral program. Special thanks are also in order for fellow cohort members, especially Julian and Lynn, for their support and encouragement. I am also pleased to thank Dr. Jack Campbell for this educational opportunity. My office colleagues, Debra Scott and Glenda Seal, and academic colleague, Jean Ann Irwin, have remained very supportive, helpful, and constant examples of the highest professional standards.

I cannot adequately express my appreciation for the support of a very unique and special person, Leslie Richards, who did so much to make this venture possible, in so many ways. My children, Leah and Wes, continually provided unique sources of encouragement and motivation, as have my special friends Megan and Chad Richards. Finally, as I have many times in my life, I once again offer a simple but heartfelt thanks to my mother, Clara F. Skolits-Jordan, as well as to Harvey Jordan.
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CHAPTER 1
INTRODUCTION

For more than two decades, community colleges have been subject to growing external demands for institutional accountability (Ewell, 1993). Demands for accountability emanate from: (1) the federal level through expanding reporting requirements, especially regarding financial aid (Ravitch, 1995); (2) the regional level through enhanced institutional effectiveness mandates of regional accreditation agencies (e.g., Southern Association of Colleges and Schools, 1997); and (3) the state level through the expansion of accountability and reporting requirements by an increasing number of states (Banta & Associates, 1993).

External "effectiveness" mandates are generally designed to accomplish one of two distinct purposes. The first purpose is to provide external constituencies with institutional performance data on established measures of effectiveness. For example, the 1998 Tennessee Board of Regents (TBR) "report card" mandate establishes public reporting by each community college on select measures related to academic programs, student academic performance
and satisfaction, and institutional efficiency (Tennessee Board of Regents, 1998). The second purpose of external mandates is to promote prescribed institutional practice that provides for enhanced institutional performance on selected assessments and for the corresponding use of assessment results for continuous institutional improvement. The Southern Association of Colleges and Schools (Southern Association of Colleges and Schools, 1992) institutional effectiveness criteria exemplify this purpose.

It is this second purpose of mandates, the promotion of institutional practices intended to enhance institutional performance on major areas of assessment, as well as to encourage subsequent use assessment for continuous improvement, that is currently under primary investigation. Accordingly, two perspectives support this investigation. First, it is assumed that different types of mandates would be expected to influence institutional effectiveness practices, performance, and use of assessment results for making continuous improvements. Secondly, in addition to the unique impacts of various mandates, institutions have unique internal cultural environments that influence both institutional effectiveness practices and performance and institutional responses to mandates.
Overall, this study examines two types of external factors influencing institutional effectiveness practice and performance. These include factors related to: (1) regional accreditation mandates; and (2) state planning requirements. While the uniqueness of institutional culture also is acknowledged to have an impact on effectiveness, issues related to culture are beyond the scope of the current investigation.

Colleges in the Southern Association of Colleges and Schools (SACS) region are subject to Criteria for Accreditation (Southern Association of Colleges and Schools, 1997) requiring specific institutional effectiveness practices. The most sophisticated practice prescribed by accreditation "institutional effectiveness" mandates is the ongoing use of assessment results for making institutional improvements throughout the institution. Colleges in the region cannot receive accreditation, or be reaffirmed, without achieving these requirements. However, the detailed peer evaluation that assesses institutional compliance with SACS institutional effectiveness criteria occurs only one time every 10 years. From a similar perspective, Tennessee State Board of Regents' policy requirements mandate comprehensive strategic planning for community colleges.
geared towards enhanced institutional effectiveness (Tennessee Board of Regents, 1994). The mandated planning process is comprehensive, focused on institutional change and improvements, and encourages significant consideration of external environmental issues. However, the traditional five-year planning cycle provides for major state oversight related specifically to planning process compliance only one time every five years.

Significantly, these long-standing regional accreditation and state planning mandates have been in effect concurrently and therefore have been jointly influencing Tennessee community colleges since 1985. As detailed in chapter two, this significant length of Tennessee community college experience with specific planning, assessment, and institutional effectiveness mandates represents an unprecedented and relatively long time perspective in comparison to the relatively brief experiences of community colleges in other states.

Institutional culture also has been found to impact institutional effectiveness in community colleges (Smart & Hamm, 1993a). Underlying institutional cultural assumptions and norms determining behavioral expectations within the organization have been found to exert a powerful influence
on the behavior of members of the organization (Schein, 1992). Significantly, the broadly defined concept of "culture" encompasses a wide array of internal and external institutional issues that are related to institutional effectiveness. Significantly, there is evidence that institutional culture influences how an organization responds to external pressures and mandates; however, while this is a subject for future investigation, it is important to acknowledge the unique role of culture on institutional practice and performance, a role that is ever present and acknowledged in the literature as particularly difficult to measure and delineate.

Beyond these external and internal influences, Tennessee community colleges have been voluntary participants in a comprehensive "performance-funding" program since 1979. Uniquely, Tennessee higher education institutions are reported to have the longest history with an ongoing state-sponsored accountability program (Banta & Associates, 1993). Tennessee community colleges are also generally reported to be somewhat "effective" in addressing performance funding requirements, especially due to the desired financial incentives offered through the program (Banta, Rudolf, Van Dyke, & Fisher, 1996; Mayes, 1995).
However, evidence of measured institutional effectiveness of Tennessee community colleges is usually presented in terms of institutional performance funding "scores" that result from specific scoring protocols, protocols that may not accurately reflect actual performance. In addition, the performance funding score does not measure or provide incentive funding for the use of assessment results for continuous improvement. Ironically, the performance funding program previously included a separate "improvement" standard providing an incentive for institutions to use assessment results for institutional improvements. However, in the current five-year performance funding cycle (1997-98 through 2001-02), funding incentive requirements for the responsive use of assessment results were dropped from the program (Tennessee Higher Education Commission, 1997a); thus, use of assessments for institutional improvements is no longer directly tied to incentive funding.

Statement of the Problem

The statement of the research problem can be reflected appropriately in the form of a research purpose: The purpose of this study is to examine the perceptions of Tennessee
academic and administrative community college leaders regarding the relationship between compliance with select SACS and TBR mandates and associated institutional effectiveness practices, institutional performance, and use of assessments for institutional improvement. Given a long history of accreditation, planning, and effectiveness mandates promoting assessment-based institutional effectiveness, Tennessee community colleges would be expected to have achieved a measurable level of sophistication with regard to institutional effectiveness practices and performance on key assessments, as well as in the corresponding use of assessment results for making institutional improvements. In addition, given Tennessee community colleges' long history with the performance funding program, it also seems reasonable to view performance funding assessments as providing a common base of assessments and methodologies for measuring the performance of community colleges in Tennessee. Additionally, these measures would also provide a common group of assessments for determining the level of the use of assessment for institutional improvement by these community colleges.

Surprisingly, the actual level of sophistication and
effectiveness of Tennessee community colleges regarding institutional effectiveness practices, performance, and use of assessments for improvement (i.e. compliance with major external mandates and requirements) have not been broadly measured and documented from the perspective of Tennessee community college leaders. Uniquely, Tennessee’s performance funding assessment experiences have provided a singular opportunity to explore the relationships among accreditation mandates, state planning requirements, and corresponding institutional practice, performance, as well as the actual use of performance funding assessments for making institutional improvements. As such, the Tennessee community college system, with long-term experience in performance funding assessment and ongoing mandates, truly establishes a unique setting for this study.

Institutional leaders such as presidents, vice-presidents, senior academic and administrative staff, as well as institutional performance funding coordinators, researchers, and strategic planners are the community college representatives most responsible for implementing (i.e., ensuring institutional compliance with) institutional responses to external mandates in Tennessee community colleges. In addition, these participants also would be
expected to assume major leadership roles in the development and maintenance of the larger organizational culture. Given these role expectations, these community college officials also provide a comprehensive base of knowledgeable "subjects" for data collection and analysis in support of this study.

Significance of the Study

The significance of this study is based on two research issues that are not well addressed in the current literature: (1) the determination of the actual level of sophistication of Tennessee community colleges with regard to institutional effectiveness practices, performance, and use of performance assessment in support of enhanced institutional effectiveness; and (2) empirical analysis of the relationship between external mandates and institutional practice and performance, as well as of the responsive use of assessment results by Tennessee community colleges. Examination of Tennessee community colleges' long tradition with external mandates will extend the current literature base, a literature base that still remains primarily focused on the adoption of institutional effectiveness measures rather than on the associated influence of such mandates on
institutional effectiveness practices and performance. State policy makers, regional accreditation bodies, and institutional leaders would especially benefit from a more empirical understanding of the influences of institutional effectiveness mandates.

Limitations

Several limitations apply to this study:

1. Survey research methodologies have intrinsic limitations that include potential instrumentation and measurement weaknesses.

2. No claim of external validity beyond Tennessee community colleges is appropriate.

3. Not all significant actors in the Tennessee community college setting are included in this study; these would include faculty and students as well as governing board officials.

4. Institutional culture, while beyond the scope of the current research project, has an influence on institutional leaders and in corresponding institutional practice and performance.
Definitions

1. Academic Administrators: The chief academic officers (e.g. vice-presidents, deans) as well as selected other senior academic officials responsible for the supervision of academic programs.

2. Community College Leaders: The ranking Tennessee community college officials and administrators holding key leadership positions in each community college in the system.

3. Core Measures of Institutional Effectiveness: Core measures are selected performance funding program assessment areas that include general education, major field assessments such as testing, peer reviews, and program accreditation, student and alumni satisfaction, retention, and institutional measures of performance on select priorities.

4. Institutional Effectiveness: Institutional effectiveness is defined as institutional performance on institutional measures of effectiveness, as well as the degree of use of assessment results for subsequent institutional improvements consistent with the institutional mission elements.

5. Institutional Effectiveness Practices: The level of
institutional compliance with specific planning, research, assessment, and continuous improvement requirements of the Southern Association of Colleges and Schools and the Tennessee Board of Regents as well.

6. Organizational culture: The assumptions, beliefs, and practices of a community college organization perceived as influences on how things are to be done by members of the college community (Schein, 1992).

7. Performance funding: The specific assessments designated by the Tennessee Higher Education Commission for the evaluation and subsequent performance based funding, of public higher education institutions in the state of Tennessee.

Research Questions

Several research questions guide this study:

1. Is there an association between institutional performance as perceived by community college leaders and actual institutional performance as measured by institutional performance funding scores of Tennessee community colleges?

2. To what degree have Tennessee community colleges complied with select SACS and Tennessee Board of Regents
planning and institutional effectiveness mandates as perceived by community college leaders?

3. Is there an association between perceived levels of compliance with select external SACS accreditation and Tennessee Board of Regents planning mandates and: (1) institutional performance as measured by common assessments of institutional effectiveness; and (2) use of assessment results for institutional improvement?

4. Is there a difference between academic and administrative leaders on the perceived levels of: (1) compliance with select external mandates; (2) institutional performance on common assessment measures of effectiveness; and (3) use of assessment results for institutional effectiveness?

5. How accurate a prediction can be made with regard to overall institutional performance, given substantive knowledge of perceived compliance with select institutional effectiveness, research, and planning mandates?

Chapter Summary

This chapter offered an introduction to the study including the study purpose, the study significance, and the delineation of specific research questions. Basic study
elements, such as the definitions and study limitations, were also introduced. The unique Tennessee history with assessment provides the researcher with rare opportunity to test the influence of external mandates on institutions with mature and intact assessment systems.
CHAPTER 2
REVIEW OF THE LITERATURE

A detailed review of the literature was initiated in support of this study. The literature review addressed the identification and use of the recently published research concerning external mandates, institutional assessment, and performance, as well as the broader aspects of institutional effectiveness concepts. The literature review was also used in support of the development of the specific independent and dependent variables, research methodologies, as well as related research procedures. These research activities include the design of a new survey instrument specifically for measuring Tennessee community college leaders' perceptions of external mandates and the influence of mandates on institutional practice and performance.

Self-Regulation and Accountability

Education has been viewed as a basic function of society, a function responsible for the critical transmission of major elements of a culture between generations (Dewey, 1916). Education's fundamental societal role establishes certain expectations for accountability on
the part of educational institutions (Wagner, 1989). MacPherson (1996) noted that basic democratic principles guide both the delegation of authority to educational institutions and the expectation for subsequent accountability to societal stakeholders: "The guardians of education in a democracy are, therefore, primarily responsible for the quality of accountability policies, and responsible to the stakeholders of public education" (p. 4).

Institutions of higher education have traditionally fulfilled their responsibility for accountability to the larger society under a process known as self-regulation (Kells, 1992). Under the principle of self-regulation, higher education institutions are internally responsible for assessing and evaluating their "own" success in terms of meeting the needs of their students and the needs of the larger society as a whole. The origin of the long-standing concept of self-regulation within higher education can be traced back as far as the twelfth century (Kells, 1992).

While the theme of self-regulation currently remains operable in American institutions of higher education, there has been a dramatic increase in demands by the general public and governmental officials for greater accountability by higher education institutions. These demands have been
reflected most directly in state-level planning and regional accreditation mandates related to requirements for particular college assessments and evaluations as well as the implementation of associated institutional effectiveness practices and procedures.

It should be acknowledged that higher education institutions and, more specifically, the leaders of these institutions, are also influenced by current management theory, paradigms and concepts. The growing popularity of "culture-focused" theories of higher education and business organizations, for example, also has greatly influenced the study and understanding of colleges. Other currently popular theories, such as "learning organization" theory (e.g., Senge, 1990), and TQM oriented approaches (Scholtes, 1994), tend to reinforce and extend the expanding literature on cultural perspectives of educational institutions.

The Open-Systems View of Higher Education

The analysis of the role of external mandates and internal culture on the effectiveness of colleges is supported by an "open-systems" view of educational organizations. General systems theory (Bertalanffy, 1968) provided a theoretical basis for understanding human
behavior, social structures, and environmental interactions and influences within organizations from a broad and integrated perspective. Similarly, Hoy and Miskel (1991) claimed that higher education institutions could beneficially be viewed as complex and open social systems. From this perspective, an educational entity is:

a model of organization that possesses a distinctive total unity (creativity) beyond its component parts; it is distinguished from its environment by a clearly defined boundary; it is composed of sub-units, elements, and sub-systems that are interrelated within relatively stable patterns (equilibria) of social order (p. 29).

The "open-systems" model provides a broad and inclusive theoretical basis for the concurrent analysis of external (i.e. mandates) and internal (i.e. cultural) forces on the higher education organization. Moreover, using the open-systems model, internal and external influences can be jointly viewed as integrated processes; processes that interact as parts of a larger educational and political system. The social systems perspective of the organization supports the identification of key organizational elements and relationships. These would include: (1) organizational sub-elements and their associated functions; (2) the environment of the organization; and (3) the identification of the relationships between the organization and its unique...
environment. This perspective enables useful and broad-based systemic examination of the influences of external mandates on the effectiveness of higher education institutions.

**Government Regulation of Public Higher Education**

In America, the individual states became responsible for establishing and regulating institutions of higher education, especially those institutions established and funded by state government. This state role was established by default as the United States Constitution had established no federal role for education at any level, thus reserving this area for the states under the "reserved clause" of the 10th Amendment (Webb, Metha, & Jordan, 1996). According to Kaplin and Lee (1995), a long-standing higher education tradition of self-management led to a belief that self-regulation was sufficient for educational institutions:

Higher education (particularly private education) was often viewed as a unique enterprise that could regulate itself through reliance on tradition and consensual agreement. It operated best by operating autonomously, and it thrived on the privacy afforded by autonomy. Academe, in short, was like a Victorian gentlemen's club whose sacred precincts were not to be profaned by the involvement of outside agents in its internal governance (p. 5).
Attendance at a college was traditionally viewed as a privilege; colleges were considered as serving in loco parentis, and higher education was viewed with deference by society and enjoyed legal immunity not available to other institutions of society (Kaplin & Lee, p. 6).

From a practical perspective, state constitutions and legislative acts established public higher education institutions and provided governing authority over public higher education, as well as provided for the overall regulation of higher education within a particular state (Kaplin & Lee, 1995). This state authority over higher education reflects different historical circumstances and obviously varies within regions of the country as well as from state-to-state (Pulliam & Van Patten, 1995).

Government regulation of higher education institutions, as traditionally assumed through the role of the state, is accomplished through a variety of methods. Kells (1992, p. 31) identified 10 sources of governmental regulation of higher education:

1. Chartering or licensing of an institution
2. Statutory requirements
3. Program approval
4. Control of appointments
5. Planning mechanisms
6. Budgetary regulations
7. Top-level appointments
8. Universal databases
9. Provision of evaluation mechanisms
10. Publication of the summary results of evaluation.

Of the 10 sources identified by Kells, the ninth source, "provision of evaluation mechanism," and the tenth source, "publication of the summary results of evaluation," are of special importance for the study of the influence of higher education mandates. While it is important to recognize the existence of all forms of governmental regulation of higher education, the last two areas identified by Kells focus on what could be generally viewed as overall public accountability: (1) the mandated establishment of evaluation mechanisms; and (2) the mandated publication of institutional evaluation results to enable states, governing bodies, and the public to have reliable sources of information regarding the performance of public institutions of higher education in their state.
Educational Reform: Challenges to Self-regulation

Demands for increased accountability in higher education have their roots in the reform efforts aimed at improving public school education. From the perspective of Pulliam and Van Patten (1995), the origin of public school (K-12) reform stems from a nationwide decline in performance by high school students on SAT tests and other performance indicators during the two decades preceding 1980. According to this perspective, a focus on access and equity concerns dominating the 1960s and 1970s resulted in greater access to education. Consequently, this expanded access was associated with a national decline on standardized measures of student achievement in public schools.

With the publication of A Nation at Risk in 1983, a major public school reform movement gained momentum. The theme of A Nation at Risk focused on the potential national economic impact of high school graduates who were increasingly unprepared, especially in science and math, for competition in a technology-based world economy. The resultant reform movement "took economic competition as its cause for being" (Pulliam & Van Patten, p. 199). Subsequent studies and associated calls for reform fueled an "effective schools" movement, a movement generating public school
research and innovations throughout the 1980s and 1990s. These reform efforts, often supported and sponsored by the federal government, addressed curriculum upgrades, a renewed focus on technical subjects such as math and science, and mandated periodic testing of students to evaluate their progress and assess improvement efforts of institutions (Bennett, 1984).

By 1990, Sarason (1990) expressed concern about reform efforts, in that he perceived that no one was addressing an important issue: "While we have poured billions of dollars into our schools, we have little or nothing to show for it (p. 3)." Sarason offered a fundamental reason for the failure of reform efforts:

Those outside the system who are responsible for articulating a program of reform have nothing resembling a holistic conception of the system they seek to influence (p. 26).

In addition to policy makers and reformers not understanding the educational system, a major concern of Sarason was that reform efforts ignored what he viewed as the basic issue of power relationships within the school systems; as such, Sarason found that reform efforts did not address key elements of the system (p. 28).
Giroux (1992) found that educational reform efforts and goals often were in conflict with democratic ideals: "Accountability, in current mainstream discourse, offers no insights into how schools should prepare students to push against the oppressive boundaries of gender, class, race, and age domination (p. 7)." Further, he found ethical issues within reforms that "subordinate basic human needs to narrow market measures" and "down-play the importance of creating support systems that name, address, and help students who are caught in the spiraling web of unemployment, poverty, racial discrimination, and institutional abuse (p. 7)."

Ravitch (1995) questioned and challenged mandated public school standards and assessments that did not address the overall needs and lack of resources of educational institutions.

Most importantly, national education leadership also expressed disappointment in reform efforts:

Eight years after the National Commission on Excellence in Higher Education declared us a "Nation at Risk" we haven’t turned things around in education. Almost all of our education trend lines are flat (U.S. Department of Education, 1991; p. 9).

This ongoing national concern led to the establishment of voluntary national education goals for the year 2000,
called America 2000. In the America 2000 report, the lack of qualified workers and weak national competitiveness from an educational perspective continued the central economic theme found in *A Nation at Risk* as the basic justification for reform.

**State-Level Accountability**

*A Nation at Risk* and other reports about the status of education in grades K-12 generated greater interest in public accountability for all educational institutions. The impetus for greater higher education accountability at the state level, reflected as state-mandated assessment for higher education, can be traced to similar "reform reports" on the status of higher education. Ewell (1993) found that the publication of two particular reports had significant implications for higher education: *Transforming the State Role in Improving Undergraduate Education: Time for a Different View* (Education Commission of the States, 1986) and *Time for Results* (National Governor's Conference, 1986). These reports focused on the concept of "return on investment" as a basis for accountability by public higher education. According to Ewell (1993), with accountability for higher education based upon the concept of statewide
return on investment, associated higher education
“assessment policies pioneered the notion that State
government had a legitimate interest in what was taught and
how (p. 349).”

By the late 1980s, the perception by state governors
regarding the lack of accountability in higher education
continued. For example, New Jersey Governor Keane stated
that: "There is a good deal of feeling among governors that
higher education is not accountable - that what is driving
is not accountability, either academic or fiscal" (American

Imperative: Higher Expectations for Higher Education
continued the call for greater accountability on the part of
higher education, citing a perceived lack of quality in
undergraduate education (Nichols, 1995b, p. 41). More
recently, higher education has been viewed as a "public
utility" promoting a somewhat unique yet powerful
justification of the further regulation of higher education
institutions (American Association of Community Colleges,
1997). Interestingly, this "public utility" view of higher
education can be found in the literature as far back as 1983
(Keller, 1983).
Community colleges, as public higher education institutions, were affected by the many and diverse calls for higher education reform. In 1988, a consortium for institutional effectiveness and student success in community colleges was formed to promote the effectiveness of two year colleges. By 1990, the League for Innovation in Community Colleges (1990) issued a report, *Assessing Institutional Effectiveness in Community Colleges*, which stated that:

During the decade of the 1980's, there has been an increasing focus on assessment and student outcomes as indicators of institutional effectiveness. State-level concern over the quality of post-secondary education has rapidly emerged as a national movement. A majority of these states now have formal initiatives labeled assessment, and numerous studies have been produced through the efforts of organizations such as the Education Commission of the States, the National Governors Association and regional Accreditation Associations (p. iii).

The Community College Consortium issued a report entitled *Making Community Colleges More Effective* (University of Michigan, 1992) that continued the focus on accountability and made a case for the concept of accountability to be defined specifically in terms of student gains on outcomes assessment. In 1994, the American Association of Community Colleges (AACC) published a guideline for community college assessment, *Community Colleges: Core Indicators of*
Effectiveness, that argued for a focusing of effectiveness efforts on "core" institutional data elements as indicators of effectiveness. More currently, the concept of community college effectiveness seems to be becoming more focused on specific key indicators of effectiveness, indicators that are defined and interrelated as part of an overall comprehensive institutional effectiveness process. For example, in 1997, the American Association of Community Colleges published Managing Your Institution's Effectiveness, that presented a comprehensive handbook, with accompanying diskettes, on how to design a comprehensive community college institutional effectiveness process.

In retrospect, research literature on the status of higher education accountability, measured through student outcomes assessment and associated institutional effectiveness practices, identifies how little had been accomplished in this regard by higher education. For example, a 1995 study found that 94% of 452 colleges surveyed were either not engaged in planning, or even in the early implementation phase of developing an institutional effectiveness process (Steele & Lutz, 1995). Thus, only 6% of responding institutions reported that they had established and were using the basic elements of a
comprehensive institutional effectiveness process.

Concern was expressed (AACC, 1997) that institutional assessment, as encouraged by mandates, was subject to a wide range of definitions and therefore institutional practices and expectations also tended to vary considerably. For example, the American Council on Education research concluded that most colleges (about 90%) were conducting assessment; however, approximately only a third of the colleges had integrated assessment processes as part of the deeper culture of the institutions (American Council on Education, 1991).

In stark contrast to findings in the literature about the lack of assessment and institutional effectiveness practices found in higher educational literature, the Tennessee experience with assessment for institutional effectiveness dates back to the beginning of the performance funding program in 1979. This program stands out as a unique, innovative, and long-standing mechanism for promoting assessment and the associated institutional effectiveness of Tennessee community colleges and universities.

The Tennessee performance funding program, which is detailed in the latter part of this chapter, has several
features that have been retained throughout the history of the program. First, the performance funding program is technically not a mandate but a voluntary program of assessment. Secondly, incentive funding beyond appropriations, as opposed to a mandate, has promoted institutional participation. Finally, institutions have had significant input into the number and types of performance standards established for each assessment area. These unique features have enabled the program to successfully continue in Tennessee for over 20 years. As such, this long-standing program provides a unique opportunity to examine the impact of external mandates on community college institutional effectiveness practices and performances.

Regional Accreditation Agency Mandates: The Federal Role

It is not possible to understand the accreditation mandates of regional accrediting bodies without an examination of their relationships with the federal government. Of major significance for accrediting agencies were the Higher Education Amendments of 1992. This legislation established State Postsecondary Review Entities (SPREs) mandating specific accrediting agency review of higher education institutions based upon excessive student
loan default rates, consumer complaints, and substantive institutional changes. Uniquely, this national legislation established criteria for accrediting agencies with regard to standards of institutional quality (Nichols, 1995b, p. 1). While some of this legislation, especially the requirements related to SPREs was never implemented and subsequently deleted from the law, the particularly legislative requirements regarding accrediting agency review of institutional quality remained.

Significantly, the eligibility for receipt of student aid funds enables the federal government to enforce those mandates. Casteen (Commission on Colleges, 1997) stated that:

Accrediting bodies are required to meet federal mandates to maintain their recognition by the Department of Education for the purpose of ensuring that their membership has access to Title IV funding (p. 1).

In the region covered by the Southern Association of Colleges and Schools these federal mandates are reflected in SACS policies (1997) related to specific criteria and eligibility requirements, substantive change approvals, and subsequent institutional review. With the full support of all of the regional accrediting agencies, a new Council for Higher Education Accreditation (CHEA) has been established.
to restrict or remove federal mandates on regional accreditation processes and, according to then CHEA president Judith Eaton (Commission on Colleges, 1997), “affirm the role of voluntary accreditation in quality assurance for higher education (p. 5).”

**Regional Accreditation Mandates**

Congruent with federal and state requirements for increased higher education accountability, regional accrediting agencies also have provided increased mandates for improved institutional performance and effectiveness during the last 20 years. In fact, regional accreditation mandates related to institutional effectiveness began with the Southern Association of Colleges and Schools, the first accrediting body to make institutional effectiveness assessment and reporting part of the institutional self-study process (Ewell, 1993). Currently all regional accrediting bodies mandate institutional effectiveness practices as part of their accreditation criteria.

The Southern Association of Colleges and Schools (SACS) is one of the six regional accrediting agencies for higher education in the United States. Eleven states are in the SACS region: Alabama, Florida, Georgia, Kentucky, Louisiana,
Mississippi, North Carolina, South Carolina, Tennessee, Texas, and Virginia. SACS also accredits schools in Latin American countries. SACS comprises several commissions, of which the Commission on Colleges is responsible for supervising the accreditation of higher education institutions.

The SACS Commission on Colleges first mandated institutional effectiveness requirements in 1985. These were mandated in the form of a specified institutional process, as opposed to specific requirements for particular assessments and associated performance levels. According to Nichols (1995a, p. 6), comprehensive institutional effectiveness criteria were designed "to indicate that the concept described was broader than assessment activities solely within an institutions' academic departments." In other words, institutional effectiveness was to be broadly defined as a comprehensive process rather than narrowly construed as the mandate of specific assessment measurements and outcomes.

**SACS Institutional Effectiveness Criteria**

In support of the stringent institutional effectiveness criteria, SACS developed a Manual on Institutional
Effectiveness (Southern Association of Colleges and Schools, 1992) in 1987, with a subsequent revision in 1992. The manual starts off with a message to the presidents stating that institutional effectiveness is a continuous self-examination process rather than a periodic event (p.iii). The manual further defines four key elements of the mandated institutional effectiveness process:

(1) development of a clearly defined statement of institutional purpose; (2) formulation of educational goals; (3) development of procedures for evaluating the extent to which these goals are being achieved; and, (4) the use of evaluation results to improve institutional effectiveness. (p. 5.)

Section III of the SACS Criteria for Accreditation (1997) stresses the requirement of "a comprehensive system of planning and evaluation in all major aspects of the institution" (p. 19) and specifically identifies the previously introduced four-step model of institutional effectiveness addressed by the manual. In addition, the Criteria include a mandate requiring broad institutional research support throughout the institution. Interestingly, the SACS Criteria are consistent with the tradition of institutional self-regulation; the criteria do not mandate a particular methodology, specific levels of performance are not identified as targets, and no specific outcome measures
are required as benchmark levels of achievement. Thus, institutions have much flexibility in the design of assessment procedures and processes, the development of database elements, and the related aspects of institutional effectiveness systems.

Accreditation Mandate: Its Impact on Institutions

Kells and Kirkwood's (1979) classic study of accreditation at 208 institutions in the Middle States Association found that there was a positive relationship between improvement as the motivation of institutional self-study for reaffirmation of accreditation and the perception that improvement had actually resulted. A similar positive relationship was found for high participation levels on self-studies and the perception that improvement resulted. Similarly, Waggener (1991) found that presidents, as a research grouping, in the SACS region viewed SACS accreditation as important for the development of the institutions.

Later researchers tended to challenge the positive results of Kells and Kirkwood. For example, Doer (1983) found that self-studies were rituals more often perceived as a chore. Similarly, Adelman and Silver (1990) identified
major weaknesses of regional accreditation including the long intervals between visits and the lack of enforcement of conditions as represented in the literature on accreditation.

Berg (1988) found accreditation self-studies to be important factors in institutional change. He noted that some areas of college operations were more effectively improved by self-study. Accordingly, Berg found that the favorable influences "are perceived by the respondents to occur in a limited number of institutional elements which appear to be very similar in all institutions (p. 22)." In public colleges, for example, educational planning was perceived as one area achieving the highest change level through mandated self-studies. This finding related to "planning" as an area of positive change resulting from accreditation self-study also applied to the community college respondents. While planning was improved by the self-study process, major institutional weaknesses also identified by self-study teams (i.e., problem areas most frequently cited) included "educational" planning and "educational" evaluation. These are elements that also happen to be key components of institutional effectiveness processes.
More recently, Nichols’ (1995b) nationwide assessment case studies found regional accreditation criteria mandates as the major impetus for institutional implementation of student outcomes assessment initiatives as part of effectiveness processes. As could be expected, 9 of the 11 case study institutions claiming a major regional accreditation mandate role in developing institutional effectiveness processes were in the SACS region. Nichols (1995b) also found that "lack of faculty/staff commitment or trust" and "difficulties of integrating assessment with existing campus processes" were major problems for the implementation of institutional effectiveness processes (pp. 72-73) envisioned by SACS criteria.

**SACS Institutional Research Criteria**

The SACS Criteria (1997) mandates institutional research in support of the institutional effectiveness mandate: This mandate, as reflected in Criteria Section 3.3 states:

Institutional research must be an integral part of the institution’s planning and evaluation process. It must be effective in collecting and analyzing data and disseminating results. An institution must regularly evaluate the effectiveness of its institutional research process and use its findings for the improvement
of its process. The institutional research process may be centralized or decentralized but should include the following activities: ongoing timely data collection, analysis and dissemination; use of external studies and reports; design and implementation of internal studies related to students, personnel, facilities, equipment, programs, services and fiscal resources; development of data bases suitable for longitudinal studies and statistical analysis; and related activities in support of planning and evaluation and management. Institutions must assign administrative responsibility for conducting institutional research, allocate adequate resources, and allow access to relevant information (p. 17).

The SACS institutional research criteria clearly envisions a major institutional commitment to comprehensive data collection, analysis, and use of results for improvement. It is also clear that institutional research functions are to generate data and information that is to provide the foundation for effective institutional effectiveness processes as envisioned by SACS.

Schein (1992) also identified the critical role of information in organizations, an identification that is consistent with the institutional research mandate by SACS:

For an organization to cope effectively with a rapidly changing environment of the sort we see increasingly in today's global context, it must be able to (1) import information efficiently; (2) move that information to the right place in the organization, where it can be analyzed, digested, and acted upon; (3) make the necessary internal transformations to take account of the new information; (4) get
feedback on the impacts of its new responses, which starts the whole coping style via information gathering all over again. In this organizational coping cycle the flow of information is critical to the health and the effectiveness of the organization (p. 277).

From this perspective, the identification and use of institutional research data is the lifeblood of the organization.

Institutional research has a long history in the community college, with its origins traced back to the early 1950s (Gold, 1982). Cherdack (1979) found significant growth in the institutional research functions by the late 1970s. Consistent with the growth of the institutional research function, Saupe (1990) found institutional research necessary for providing decision makers with essential data for planning and development. By 1989, the Rogers and Genetemann's (1989) study of over 300 institutions of higher education found a strong and positive relationship between the use of institutional research and perceptions of overall institutional effectiveness. Additionally, the need for the ongoing development of the institutional research function continues to receive support in the literature. For example, Delaney (1997) found that fiscal constraints, competition, rising costs, and demands for public accountability had

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increased the need for effective institutional research. Overall, concern about the need to strengthen institutional research functions has been well documented in the literature (Rowh, 1990).

While the institutional research literature, the accreditation mandates, and college representatives find institutional research to be a major foundation for an effective institution, it is also clear from the literature that the institutional research function in higher education is extremely lacking in its ability to perform such a role. A major problem with institutional research is that such efforts tend to be focused on routine reporting instead of research. For example, Pace (1979) found that institutional research offices were evolving towards routine reporting and "accounting" types of activities; few evaluation activities were being sponsored. Additionally, Rowh (1990) found that institutional research offices in southern two-year colleges still focused on external reporting, as opposed to what the survey respondents thought they should be working on:

1. More research projects;
2. Academic program evaluation;
3. Planning studies;
4. Outcomes assessment; and
5. Financial analysis;

Rowh also argued that two-year college researchers' job
duties need to be refocused towards relevant institutional needs. Delaney (1997) reported similar findings:

"Institutional researchers responding to this survey report that they are engaged extensively in doing institutional reports and conducting various enrollment management studies. However, only a minority report that they are conducting planning and policy studies, academic studies, and financial studies (p. 10)."

A second major problem area concerning institutional research relates to the lack of staff, staff training, and budgetary resources. Rogers and Genetemann (1989) found major impediments to institutional research related to insufficient staff, lack of budgetary resources, and lack of adequate technical training of professional staff. In the literature, the issue of staffing and budgetary resources for institutional research are continually raised. For example, Hearn and Corcoran (1988) found that institutional research efforts were scattered across different locations throughout college campuses; this scattering occurred because institutional research offices lacked time and staff for anything other than routine activities such as reporting. Huntington and Clagett (1991) found obstacles to effective institutional research related to staff size, the
lack of needed expertise, and lack of appreciation of data and studies by campus leaders.

Rowh (1990) found that fewer than half southern community colleges employed an institutional researcher on a minimum of a half-time basis. Baker and Roberts (1989) found that of all institutional effectiveness indicators, institutional research was the weakest, (i.e. least consistently practiced) in two-year schools in the SACS region. Similarly, this problem is not confined to community colleges, as Delaney (1997) found in a study of 127 institutions that fewer than half had institutional research offices (40%), although over 45% had "someone" conducting institutional research (p. 3).

Institutions cannot argue reasonably that they lack direction and guidance as to how to organize and conduct institutional research. First, the accreditation mandates, especially of SACS, are clear as to what is expected of colleges related to institutional research; the associated SACS Handbook of Institutional Effectiveness is quite prescriptive regarding what is expected of the institutional research function. Specific data elements and research processes are identified from an institution-wide perspective. In addition to mandates, there is a growing
body of literature supporting the development and expansion of institutional research. Terenzini (1993), for example, offers a human resource development model of institutional research, a model focusing on the core skills and competencies needed by institutional researchers. Terenzini identified three levels of expertise needed by institutional researchers:

1. Technical and analytic - expertise with institutional data systems and statistical techniques;
2. Issues knowledge - awareness of institutional concerns; and
3. Contextual knowledge - knowledge of the organization's history and culture. All three, Terenzini found, must be present for an effective institutional research function. From a different perspective, Matier, Siddle, and Hurts (1994) proposed the expansion of institutional research functions to include internal consultants and change agents. In contrast, Chan (1993) argued that institutional research must focus on external contexts supporting strategic management issues.

Interestingly, there has been some empirical testing of the Terenzini model, testing that tends to suggest that institutional research has suffered most from the limited
expectations of the function by colleges' leaders. When Knight, Moore, and Copperthwaite (1997) specifically tested Terenzini's three-tier model, they found that most researchers indicated they had technical and analytic skills as well as knowledge about issues, or two of the three recommended competencies. However, they indicated significantly less familiarity with contextual knowledge. Knight et al. also found that when institutional research was expected to function as a "reporting" function, all three knowledge areas were not necessary or expected of incumbent institutional researchers. Thus, the expectations of the institutional research role has a major impact on the core competencies located within the institutional research function.

Overall, the literature generally finds that institutional research is a critically important element of institutional effectiveness. However, serious institutional limitations and weaknesses, often self-imposed, are also found in the literature with regard to this function. These weaknesses were found in the SACS region, as well as in community colleges.
Tennessee State Planning Mandates

Tennessee State planning mandates for higher education related to accountability include two areas: (1) emphasis on the external environment; and, (2) emphasis on systematic planned change. To understand the context of these mandates, the unique Tennessee higher education structure and system designations must be addressed.

In Tennessee, there are two systems of higher education, the Tennessee Board of Regents (TBR) system and the University of Tennessee system (Consacro & Rhoda, 1996). Both systems are under the coordinating authority of the Tennessee Higher Education Commission. The Tennessee Board of Regents System governs 6 regional universities, all 14 community colleges, as well as over two dozen technology centers. The TBR claims to be the seventh largest system of higher education in the country. As part of this larger TBR system, the two-year institutions enroll over 40% of all Tennessee public college students (Consacro & Rhoda, 1996).

The Tennessee Board of Regents was specifically established in 1972 to govern the State University and Community College System of Tennessee. At the time of its establishment, the system governed 6 regional universities and the 10 community colleges in the state. Community
colleges in Tennessee were developed through "a carefully laid out master plan that recognized the impact that they would have on the state, the economy, and their respective local economies (Consacro & Rhoda, 1996, p. 577)." Overall, Consacro and Rhoda also found that community colleges in Tennessee have had a major economic impact on the state and thus appear to have earned public support and confidence.

Significant planning was involved with the creation of the system and strategic planning has been used as an effective ongoing management tool since the systems inception. The Tennessee Board of Regents achieved a broader reputation for the use of strategic planning (Richardson, 1991). The state’s history of strategic planning, especially in higher education, helps explain the unique breadth and depth of the state’s planning mandate for community colleges. A review of current planning literature will enable a more detailed understanding of the TBR planning mandates, and their potential impact on the institutions in the system.

**Strategic Planning Theory**

Strategic planning has been defined by Cunningham (1983) as:
Selecting and relating knowledge, facts, images, and assumptions regarding the future for the purpose of visualization and formulation of desired outcomes to be achieved, sequential activities necessary to achieve those outcomes, and limits on acceptable behavior to be used in their accomplishment. Planning typically brings about some needed and agreed upon changes that are designed to correct or improve in some fashion the existing situation. It is through planning that organizations justify their existence and through performance that they maintain their right to continue to operate. (p. 5)

From the perspective of accountability, significant elements of this definition relate to: (1) being responsive to external factors affecting the existence and continuation of the organization; and, (2) instituting planned changes and improvements.

Planning literature tends to be prescriptive, with a focus on the elements that make up an "ideal" planning process. For example, Bryson (1995) established a 10-step process that he viewed as a comprehensive strategy change cycle, a system for planned change based upon the open systems model. The elements of the process prescribed by Bryson (1995) include:

1. Initiate and agree upon a strategic planning process;
2. Identify organizational mandates;
3. Clarify organizational mission and values;
4. Assess the organization's external and internal environments to identify strengths, weaknesses, opportunities, and threats;
5. Identify the strategic issues facing the organization;
6. Formulate strategies to manage these issues;
7. Review and adopt the strategic plan or plans;
8. Establish an effective organizational vision;
9. Develop an effective implementation process; and
10. Reassess strategies and the strategic planning process (p. 23).

Key elements of the comprehensive strategic planning process described by Bryson can be found throughout the literature. Several of these elements are of specific interest for this study, especially as they relate to the external environment assessment and the overall use of the planning process to bring about desirable planned change. The related planning literature for both these areas is introduced below.

External Influences on Organizations

Bolman and Deal (1984) defined the environment of organizations as the influences outside the organizations' boundaries "even though the boundaries are often nebulous
and poorly drawn (p. 44)." Hoy and Miskel (1991) identified specific environmental concepts that include general and/or specific environments, uncertainty, stability, complexity, structure and scarcity (pp. 57-59). Other theorists have developed typologies of the environment based upon degrees of uncertainty and turbulence, a literature with origins as far back as Emery and Trist (1965). Adjusting to the specific conditions of the environment is therefore a key function of strategic planning (Hoy and Miskel, 1991).

Andrews (1996) found that external environmental factors for business organization included: technology, ecology, economics, industry, society, and politics. Rumelt (1996) provided four criteria for the evaluation of strategy that includes environmental adaptations: (1) consistency with internal goals and policies; (2) consonance with regard to adaptation to the external environment; (3) competitive advantage; and (4) feasibility given available resources. The second criterion specifically addresses adaptation to the external environment as one of the pillars of organizational strategy.

Bryson (1995, p. 88) identified 8 categories of environmental analysis that he found to be appropriate for the public sector:
1. Social and organizational complexity;
2. Privatization and increased interaction among public, private, and nonprofit sectors;
3. Continuation of technological change;
4. Limited public-sector resources and growth;
5. Diversity of the workforce, customer base and citizenry;
6. Individualism, personal responsibility, and civic republicanisme;
7. Quality of life and environmentalism; and
8. Transitions with continuity, not revolution.

These environmental issues are specifically addressed from the perspective of their potential influences on the organization as strengths, weaknesses, opportunities, and threats (Bryson, 1995). Similarly, Bourgeois (1980) promoted environmental analysis through categorization and the resultant subdividing of strategy. Other methodologies environmental analysis also receive attention in the literature. For example, Pflaum and Delmont (1987) recommended external scanning as a methodology for managing environmental issues:

External scanning allows managers and planners in both public- and private-sector organizations to identify emerging trends, to minimize the
number of surprises they encounter, and to enhance strategic thinking and planning (p. 58).

The authors introduce a 3-part scanning model. A model that includes scanning, analysis, and reporting. Similarly, Friedel and Lapin (1995) argued that community colleges and universities need to engage in environmental scanning:

Community colleges are heavily influenced by the external environment; monitoring these changes and their potential impact on the institution is a critical component of strategic planning. Environmental scanning is a method that enables decision makers to understand the external environment and to translate this understanding into the institution's planning and decision making processes (pp. 65-66).

They further suggest that community colleges need to shape their future based upon a comprehensive understanding of their particular environment.

**Strategic Planning and Planned Change**

French and Bell (1995) linked planning and planned change to the processes of organizational development. As such, they defined organizational development as:

a planned systematic process in which applied behavioral science principles and practices are introduced into ongoing organizations toward the goal of increasing individual and organizational effectiveness (p. 1).

The authors further state that “organizational development
is all about change (p. 3)" and as such, from this perspective, the concept of planning takes on specific meaning as a focus on change.

Similarly, Lewin (1947) described a process for planned change that was based upon the need of an organization to overcome intrinsic and internally based restraining forces. Lewin’s planned change process includes a three-stage process of “unfreezing,” “introducing change,” and “refreezing” the organizational element of interest. Cunningham (1983) provides one of the most direct linkages arguing for planning to accomplish educational planned change through organizational development. From this perspective, the degree to which Organizational Development (OD) concepts are effectively included in the planning process increases the probability of implementing successful and meaningful planned change.

Consistent with the traditional “planned change” association with organizational development, Fullen (1991) stated that successful innovation in educational institutions required “second order change” (p. 29). First-order change improves the effectiveness of what is already being done; second-order change makes fundamental alterations in the way things are done. For Fullen (1991)
the concept of second order change will be an issue for the foreseeable future:

The challenge of the 1990s will be to deal with more second-order change - changes that affect the culture and structure of schools, restructuing roles and responsibilities including those of students and parents. In the past we have often worked on the notion that if we "first fix it" and if all perform their roles better, we will have improved education (p. 29).

Senge (1990) identified similar perspectives with regard to second order change consistent with the concept of the learning organization. Both Fullen and Senge conceptualize change in a manner that extends and builds upon the planned-change perspective of organizational development. However, it must be noted that different planning methodologies, beyond these direct planned change perspective, are also found in the literature. For example, Christensen (1985) noted that planning must recognize and address uncertainty and thus advocates a contingency based model of planning. In contrast, Steiner (1997) noted an increased use of broad-based and generalized "scenarios" as a methodology for addressing potential threats in the environment (p. 230). However, these other planning perspectives are still ultimately focused on some form of planned change but offer different methodologies for
achieving desired ends.

**Critique of Strategic Planning**

Mintzberg (1994) argued that strategic planning had lost its prestige among private sector institutions as it was practiced as the "one best way" to implement strategy (p. 107). More importantly, regarding the specific adoption of strategic planning in educational systems, Mintzburg notes that those institutions have "been forced to waste so much time doing ill-conceived strategic planning (p. 114)." In a sense, planning was perceived as being conducted as an exercise and lacked a focus that gave the process meaning and importance.

Mintzberg seeks to suggest a focus by advocating "strategic thinking" rather than strategic programming in the form of a written strategic plan (p. 108). This position is supported by other theorists (Hamal & Prahalad, 1989; Senge, 1990). However, the concept of strategic thinking focuses on taking advantage of opportunities through flexible and adaptive decision making, decision making that is informed by strategic objectives. Ultimately, if the end result is to truly achieve organizational strategic objectives, then the ultimate course of action is to bring
about planned change. Obviously, the change achieved should be consistent with strategic priorities; the end result of planning should not be a document, but a change in the desired direction. Overall, Mintzberg's classic critique of traditional strategic planning, and his strategy-based solution is consistent with the planned change model of planning.

The Tennessee Planning Mandates

The Tennessee Higher Education Commission established a plan for all higher education systems in the state: Higher Education Uniting To Serve Tennesseans: A Strategic Master Plan for 1991–2000. This plan established four principal elements of focus for the planning period: (1) equity; (2) excellence; (3) accessibility; and (4) accountability. Of the 13 goals developed within the plan, the first goal addresses accountability: "to increase the quality of higher education and refine the performance funding process to assess it (p. 6). Two associated objectives were established. While the first objective addressed a concern for program duplication, the second specified expectations for institutional effectiveness:
to encourage through performance funding the development of campus-specific systems for the assessment of program quality on each campus by involving faculty, administration, and students, and encourage individual institutions to use feedback from outcomes assessment to improve the quality of existing programs (p. 19).

Goal two also addresses accountability: "To communicate more effectively the role of higher education with the general public and the executive and legislative branches of state government." The associated objective is "to communicate accountability measures used to validate the quality of academic programs, manage fiscal resources, and provide better services to students (p. 19)."

In direct accordance with the THEC planning imperatives and goals previously referenced, the Tennessee Board of Regents established a master plan entitled Agenda 2000: The Board of Regents Commitment to the People of Tennessee (TBR, 1995). The TBR plan encompasses a series of agenda items and associated actions steps for the five year period ending in year 2000. Agenda Item # 2 specifically addresses accountability:

The Tennessee Board of Regents shall increase public confidence in higher education through the development of an accountability system that will clearly show the people of Tennessee what their tax dollars will buy and document the degree to which TBR is a cost-effective and efficient organization. (p. 6).
Several action steps are included for this second goal addressing accountability. These action steps identify the depth of the TBR’s plan to effectively serve the higher education needs of the state. The concept of strengthening institutional effectiveness toward an increasingly more focused addressing of environmental (e.g. state) needs, including the needs of citizens, business and industry, are found within these planned actions steps (Tennessee Board of Regents, 1995):

- Developing an assessment system that more clearly defines a program completer and determines the value added from a post-secondary educational experience.

- Setting specific goals for increasing the number of completers at each institution, reporting progress toward those goals, and assessing the impact when they do not complete.

- Identifying annually the number of people who - through a post-secondary experience - have (a) gained job placement in a study-related field, (b) secured promotion or advancement in existing jobs or (c) escaped welfare to become taxpaying citizens.

- Establishing an accounting system for measuring the value of post-secondary education’s outreach programs which serve our state’s business and industries.

- Continually assessing and determining what post-secondary education can do to meet the education and training needs of Tennessee.

- Evaluating all existing program review processes to determine whether they make sense in the 21st century.
- Evaluating the effectiveness of all TBR programs on a systematic basis over the next five years to determine whether they are meeting the needs of today's workplace environment.

- Consolidating all TBR planning processes to ensure unity of purpose, coordination of efforts and efficiency in implementation.

- Annually producing an evaluation/progress report showing the progress made in fulfilling the mandates of agenda 2000 (p. 7-11).

**TBR External Environment Mandate**

The Tennessee Board of Regents has developed a specific institutional planning model (TBR, 1994) provided to member colleges in the form of instructions, instructions establishing the specific details, elements, and expectations of the TBR planning mandate. The external environment receives immediate and critical attention in the TBR planning model. Step 1 of the TBR planning model addresses a mandate for institutional assessment of the internal and external college environments:

Strategic planning aims at achieving the best "Fit" between an organization and the environment within which it seeks to carry out its defined mission. This requires careful assessment of that environment, both inside and out: "Attention to mandates and the external environment...can be thought of as planning from the outside in. Attention to mission and values and the internal environment can be considered planning from inside out (Bryson, 1988)." Successful organizations do both. Through this assessment,
the System and its institutions identify their strengths and weaknesses and, hence, the opportunities and constraints that they will face in carrying out their missions (p. 4).

This external environment mandate clearly calls for each institution to assess its environments and determine environmental opportunities and constraints in context of the organizational mission.

**TBR Planned Change Mandate**

The TBR strategic planning model addresses the expected role of each institution to establish strategic goals that define a future state to be achieved by the institution during the five-year period. According to the planning mandate, "this is always the most difficult part of planning because it sets priorities which, in turn, make legitimate demands for re-directing resources - human, fiscal, physical, and otherwise - of the organization (p. 6)."

Further, the instructions state that planning priorities "tell us how far down the path the institution wishes to be by the end of the five-year planning cycle (p. 6)."

The TBR planning mandate expects institutions to re-direct resources and efforts by committing to the achievement of a desirable future state, a future state
consistent with the organizational vision. Under this mandate, institutions must define the future and marshal the resources and determine and implement the changes necessary to achieve the desired state. Essentially, this mandate acknowledges the challenge of defining and achieving planned change through a vision of the future consistent with the institutional mission. The mandated vehicle for identifying the future state and the strategies and necessary resources is the institutional strategic plan.

**TBR Institutional Report Card Mandate**

A new accountability mandate was established by the Tennessee Board of Regents in 1998 for all member institutions. This mandate is the publication of an annual report card for each TBR college and university. The report card reports on several key measures of institutional effectiveness, as identified in Table 1.

According to TBR Chancellor Smith, "The long term benefit of having a report card will be to establish lines that will provide valuable tools for measuring success and short comings in different categories. This encourages each institution to strive toward improvement (Walters State Community College, 1999, p. 1)." Overall, the TBR report
card is the most publicly focused mandate for institutional effectiveness established by the Tennessee Board of Regents. Most of the elements of the report card address assessments that have been components of performance funding since the inception of the program in 1978. Because it is the newest mandate, there is no literature on the report card; therefore, this study examined the initial impact of the report card from the perspective of how community college leaders perceive its long term influence.

Table 1

**TBR Report Card Elements**

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Indicator 1.</td>
<td>Licensor Fields (Exams)</td>
</tr>
<tr>
<td>Indicator 2.</td>
<td>Job placement (rates)</td>
</tr>
<tr>
<td>Indicator 3.</td>
<td>Student satisfaction</td>
</tr>
<tr>
<td>Indicator 4.</td>
<td>Alumni satisfaction</td>
</tr>
<tr>
<td>Indicator 5.</td>
<td>Core knowledge and skills</td>
</tr>
<tr>
<td>Indicator 6.</td>
<td>Graduation rates</td>
</tr>
<tr>
<td>Indicator 7.</td>
<td>Degrees granted</td>
</tr>
</tbody>
</table>

**Academic Programs**
Table 1 (Continued)

<table>
<thead>
<tr>
<th>Indicator 8. Program accreditation</th>
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</thead>
<tbody>
<tr>
<td>Indicator 9. External peer review</td>
</tr>
</tbody>
</table>

Faculty Productivity

| Indicator 10. Faculty Productivity |

Financial Accountability

| Indicator 11. Tuition and fees |
| Indicator 12. Staffing |
| Indicator 13. Expenditures |
| Indicator 14. Private living |
| Indicator 15. Financial Aid |


**Organizational Culture**

Use of the concept of organizational culture for studying organizations, for both higher education and corporations, has become increasingly more popular over the past 20 years. In a sense, organizational culture has become a dominant methodological paradigm (Kuhn, 1970) for the study of modern organizations. Tierney (1988) found that the increasing emphasis on culture in higher education
literature had been a mixed blessing, with both positive and negative implications. While expansion of the concept of culture has provided new insights into organizations and the behavior of associated participants, "Widely varying definitions, research methods, and standards for understanding culture create confusion as often as they provide insight (p. 126)." For example, Schein (1992) found that the concept of culture for the study of organizations had a long history and also noted that the concept of organizational culture had generated serious academic challenges.

An overview of the culture of higher education institutions begins with an awareness of the unique and distinct attributes of higher education institutions. Cohen and March (1974) viewed colleges as "organized anarchies," such that higher education organizations were not prone to either rationality or centralized control. Similarly, Weick (1982) viewed higher education organizations as "loosely coupled" systems, systems that have multiple centers of authority from the perspective of organizational control. Baldridge (1971) found strong evidence that political factors, specifically in decision making, tended to implicitly have a large role in the ongoing operations of
college organizations.

Kells (1995) found that the concept of self-regulation, as a higher education tradition, depended on a significant level of cultural development: "General progress in development of a self-regulatory culture can be made if self-evaluation achieves its potential (p. 24)." Similarly, Dill (1981) found that "Academic institutions possess distinctive cultures which are developed and sustained by identifiable actions of the community members (p. 183)." As such, Dill argued that "Because of the distinctive nature of academic institutions, organizational culture plays a significant role in their functioning (p. 185)." Tierney (1988) found that the lack of knowledge of the dynamics of culture as it relates to institutional performance impedes the development of higher education. Given these unique and particular higher education characteristics, Masland (1985) argued that studying organizational culture was critical for the future development of higher education, because of the long tradition of weakened organizational control mechanisms in these institutions.

Culture and External Mandates

Cunningham and Gresso (1993) found that mandates were
particularly problematic for the culture of educational institutions. Arguing that "each organization must solve its own problems through its own culture (p. 35)" the authors used a biological metaphor for describing how cultures handle mandates:

Mandates are handled by the culture much as germs, viruses, and bacteria are handled by the human body. Antibodies collect around the germ for the purpose of carrying it through the human body in a way that does the least harm, and ultimately eliminating it from the system. Of course, fighting off foreign substances drains energy, and the business at hand gets less attention (p. 35).

This concept of "mandates-as-germs" suggests a serious challenge to the basic concept of externally mandated requirements. Overall, the authors concluded that external mandates had little effect if the culture of the educational institution was not willing and ready to address the mandates. Dyer (1985) offered a potential explanation of this finding by arguing that cultures developed specific assumptions about the nature of their environment. Dyer argued that organizational cultures made assumptions about several types of organizational issues, including assumptions about the environment. Environmental assumptions, as viewed by Dyer, could be thought of as an answer to the following question:
Is there a basic belief that human beings can master the environment, or that they must be subjugated to the environment, or that they should attempt to harmonize with the environment (p. 205)?

To Dyer, the answer to this question specifically reflected the nature of the relationship between the organization to its environment. All stakeholders, both in and outside of the organization, were powerfully affected by the environmental assumptions of the organization. Dyer also found that environmental assumptions did in fact evolve with the organization, evolve in a manner that tremendously affects critical survival needs related to the environment. Surely, as public institutions, community colleges are organizations that would be expected to have environmental assumptions, and these assumptions would be expected to impact all relationships with the external environment, including those related to regional accreditation and state-based external mandates.

**Tennessee Performance Funding Program**

The State of Tennessee is recognized as a leader in promoting higher education accountability through the ongoing operation of an incentive-based performance funding program covering all public institutions of higher education.
education. The basic design of the performance funding program enables public higher education institutions to assess select areas of college operations; performance above specified norms earn the college "points" that are translated into incentive funds, funds that are provided to the college in addition to the institution's formula generated appropriations (Tennessee Higher Education Commission, 1997a). Tennessee's performance funding program has a long and unique history. Pilot applications of a performance funding program prototype were initiated in the 1970s with a standardized performance program formally established as an incentive program in 1982. The program was designed to operate on a five-year cycle; currently the program is in its fourth five-year cycle. Given the program's long history, Ewell (1993) found that Tennessee's performance funding program, with its origins in the 1970s, was historically significant in that it was one of the earliest state assessment programs.

Contrary to perceptions of the public, as well as by many community college faculty and staff, the performance funding program is not mandated by the state; institutional participation is ultimately on a purely voluntary basis. Public institutions technically can choose not to compete.
for funding; however, as expected, all community colleges have chosen to compete for the incentive funds. The Tennessee performance funding program is more properly labeled as the first voluntary program by a state government to provide public higher education institutions with "an opportunity" for incentive funding, funding specifically based upon performance relative to specific outcomes and assessments (Banta, Rudolf, Van Dyke, & Fisher, 1996).

According to some writers investigating the primary design of the performance program, one of the initial purposes of the performance funding program was to increase state funding for higher education during a period of enrollment decline; additional institutional funding was to be made available through performance based financial incentives (Bogue & Brown, 1982). In contrast, the more formal stated purpose of the performance funding program, as identified by the Tennessee Higher Education Commission which sponsors the program, is as follows:

The Performance Funding Program is designed to stimulate instructional improvement and student learning as institutions carry out their respective missions. Performance Funding is an incentive for meritorious institutional performance and provides the citizens of Tennessee, the Executive Branch of state government, the legislature, education officials, and faculty with a means of assessing the progress of publicly
funded higher education. By encouraging instructional excellence, the Performance Funding Program contributes to continuing public support of higher education and complements academic planning, program improvement, and student learning. (Tennessee Higher Education Commission; 1993, p. iii)

Specifically, the program provides up to an additional 5.45% of an institution's state funding allocation as an incentive reward for specific levels of performance on student outcomes and related academic and institutional assessments.

**Performance Funding: Program Overview**

The policies and processes established for the performance funding program are explicitly stated in the THEC document entitled: *Performance Funding Standards: 1997-98 through 2001-02* (Tennessee Higher Education Commission, 1997a). This handbook also offers some unique background information regarding the program. Within this background information is an indication of just how positively the program is viewed by the THEC:

- since the program's inception in 1973, over one-quarter of a billion dollars have been earned by institutions through successful achievement of measurable performance outcomes;
- the program's incentive based funding approach has resulted in substantive improvements in academic programs and services which benefit students enrolled...
at public institutions;
• The program has a long history of success in the state and has been the focus of much national attention over the two decades of its existence (p. 1).

As currently designed, the performance funding program for Tennessee’s community colleges comprises four standards, with each standard addressing two or more associated assessments (Table 2). Universities have somewhat different standards, consistent with the unique elements of their respective missions.

Table 2
Summary of Performance Funding Standards (Two-Year Colleges)

<table>
<thead>
<tr>
<th>STANDARD 1 ACADEMIC PERFORMANCE</th>
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</thead>
<tbody>
<tr>
<td>1.A Foundation Testing of General Education</td>
</tr>
<tr>
<td>1.B Pilot Evaluations of other General Education Outcomes</td>
</tr>
</tbody>
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<table>
<thead>
<tr>
<th>STANDARD 2 ACADEMIC PERFORMANCE: MAJOR FIELD</th>
</tr>
</thead>
<tbody>
<tr>
<td>2.A Accreditation of Academic Programs</td>
</tr>
<tr>
<td>2.B Academic Program Peer Review</td>
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<tr>
<td>2.C Major Field Assessment</td>
</tr>
</tbody>
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<table>
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<tr>
<th>STANDARD 3 STUDENT SUCCESS AND SATISFACTION</th>
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<tbody>
<tr>
<td>3.A Enrolled student/Alumni Survey</td>
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</table>
Table 2 (Continued)

<table>
<thead>
<tr>
<th>3.B Retention/Persistence (Retention)</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>3.C Job Placement</td>
<td>15</td>
</tr>
</tbody>
</table>

STANDARD 4 STATE AND INSTITUTIONAL INCENTIVES

| 4.A Institutional Strategic Plan Goals | 5 |
| 4.B State Strategic Plan Goals        | 5 |

Total Points (max) 100


Standard 1, addressing academic performance in general education, comprises two related substandards. Standard 1.A, foundation testing of general education, assesses the performance of prospective graduates in general education subject areas. For community colleges, there is a choice of assessment instruments; schools can either choose the Basis Academic Skills Examination (College BASE) or the ACT College Outcomes Measures Program (COMP). All associate (AA, AS, and AAS) degree candidates are tested during the semester in which they have filed a statement of intent to graduate. At the end of the year, the associated testing agency computes an institutional average. A college is

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awarded up to 15 points when its institutional average exceeds the national norm or if it shows measured improvement from prior years.

Standard 1.B provides institutions with up to 10 points for successfully pilot testing a new general education instrument, beyond the two choices allowed in standard 1.A. This standard, originating with the current five-year cycle, reflects the continuous search by THEC for more effective instruments to measure general education. To compete for points under this substandard, a specific pilot plan must be approved by the college's governing board and the THEC in advance of the pilot test application.

Standard 2, Academic Performance in Major Fields, addresses academic performance in three assessment substandards related to graduates' "major" fields of study. Substandard 2.A, Accreditation of Academic Programs, provides an institution with up to 10 points for achieving or maintaining program accreditation for all eligible programs. Eligible programs are defined as programs that are accreditable by an accreditation agency recognized by the Tennessee Board of Regents. Substandard 2.B, Academic Program Peer Review, provides up to 10 points for the successful evaluation of a major field program by peer
evaluators. This substandard only applies to major field programs not covered by accrediting agencies. Substandard 2.C, Major Field Assessments, allows an institution up to 15 points for successful student performance on major field examinations. Major field examination scores for an institution are compared to prescribed national, state, and/or local standards (i.e. test scores of previous years) depending on the specific testing instrument used. When institutions exceed comparative norms, they can earn up to 10 points.

The major field test must be approved in advance by THEC. Regardless of the test used, all graduates for a given academic year are tested. As a group, these scores are compared to either national or state cohorts, or in the case of purely local tests, they are compared with the last scores of record. Points are awarded for performance that exceeds the associated norm group. Each year of the five-year performance funding cycle, at least 20% of an institution’s academic programs must be assessed on Standard 2.b (peer review) and 2.c (major field exams). A five-year assessment plan must be filed and approved by the governing board and THEC at the beginning of the cycle.

Standard 3, student success and satisfaction, comprises
three assessment substandards. Substandard 3.A, Enrolled Student/Alumni Survey, provides up to 10 points for the assessment of currently enrolled students and alumni on standardized satisfaction surveys. During the odd-numbered years, colleges conduct the alumni satisfaction survey and during the even-numbered years, the student satisfaction survey is conducted. Institutional scores are determined by a comparison of student/alumni satisfaction levels compared with the national norms provided by ACT. Substandard 3.B, Retention /Persistence, allows up to 5 points for the successful retaining of students consistent with institutional targets, with institutional performance being compared to appropriate norms. Substandard 3.C, Job Placement, provides up to 15 points for the successful placement of graduates. At least 75% of graduates in a degree program must attain a job within a certain period of time after graduation to be counted as a positive placement.

Standard 4, state and institutional incentives, is comprised of two related sub-standards. Substandard 4.A, Institutional Strategic Plan Goals, requires institutions to establish performance benchmarks for achieving goals related to their approved institutional strategic plan. For successfully achieving these benchmarks, an institution can
earn up to 5 points. Substandard 4.B, State Strategic Plan Goals, provides the same amount of points (e.g. up to 5) for the achievement of institutional benchmarks that are directly related to TBR strategic planning goals for the state.

The performance funding program is conducted on five-year cycles, with the current cycle covering the academic calendar years of 1997-98 through 2001-02. Prior to the beginning of each cycle, the THEC publishes a handbook (THEC, 1997) that identifies the standards, assessment areas, and protocols for awarding point totals for the five-year period. Also prior to the start of a cycle, institutions present a detailed five year schedule of assessments for both governing board approval and THEC approval. The schedule identifies the year that particular areas are to be assessed.

When all of the performance funding standards are combined, a maximum total of 100 points can be earned. For each assessment area within a standard, institutions conduct the associated assessment under the rules and guidelines of the program, and compare results to specified local, state and/or national peers, as well as to previous institutions performance. Performance levels above peers, or
significantly improved performance in relation to institutions previous (local) scores enables institutions to earn up to the allocated point value maximum for the assessment area.

**Performance Funding Literature**

Banta et al. (1996) found that since the Tennessee Performance funding program began, 75% of all states and each regional accrediting agency have "issued calls for institutions to demonstrate their accountability for the use of public funds (p. 24)." A national survey conducted in 1997, building on a previous SHEO survey, identified that all but 4 states either currently had performance funding programs or were likely to adopt such programs (Burke, 1998).

Van Dyke, Rudolf, and Boyer (1993) found a variety of positive outcomes of the Tennessee performance funding program:

- Increased use of portfolios to assess outcomes in the performing arts;
- Changed curricula and faculty in some departments, with assessment results used as part of the rationale for these decisions;
- More focus-group interviews with employers;
- Testing of entering freshmen, rising juniors, and seniors to study the longitudinal growth of students;

- External program review at both the undergraduate and graduate levels;

- Linking of assessment to strategic and long-range planning;

- Implementation of persistence studies with data used for planning and enrollment management;

- Beginning efforts to implement continuous quality improvement; and

- Increased faculty interest in developing better classroom tests (p. 291).

The authors also found challenges in the programs related to: (1) the significant financial costs of conducting the assessments; and (2) the limited and restricted use of performance based funds for enhancing the general fund (p. 292). Citing both SACS criteria and performance funding, the authors conclude that "the assessment movement has made a difference in Tennessee (p. 285)."

Mayes (1995) generally found positive results regarding the perceptions of performance funding coordinators on the usefulness of the program in promoting the use of assessment for subsequent improvements. For example, the mean score for the total program related to whether the "standards improve effectiveness" is 3.71 on a scale of 1.0 to 5.0 (p. 18).
Mayes (1995) also found that community college officials, responsible for the administration of the performance funding program at the campus level, held a favorable view of the program as it related to institutional effectiveness and continuous improvement:

Tennessee's community college performance funding coordinators generally believed that the current model provides good measures of the quality of educational outcomes and that data collected through the model were either used for or had the potential for improving student learning (p. 21).

As such, Mayes argued that both students and faculty appear to be benefitting from the use of performance based funding incentives.

In somewhat of a contrast, Banta et al. (1996) found varying and somewhat lower levels of perceived effectiveness of the performance funding measures (Table 5). On a 4-point "mock grading scale", performance funding respondents in community colleges ranked particular assessments from a low of 1.85 (enrollment goals) to a high of 3.3 (placement) out of a possible 4.0. When addressing all standards combined, these authors found that the average score for all respondents was 2.38, with an average of 2.67 for two-year institutions (p. 37). This was not an overwhelming endorsement by the respondents. Similar large variations
were found with regard to the use of performance funding assessment results by all levels of institutions (Table 3). Overall, the literature generally found positive views and assessments of the performance funding program although there is a noticeable level of variation in the perceived effectiveness of different performance funding assessments. In both studies, the factors influencing this variation have not been addressed from a formal methodological or statistical perspective. In addition, there has been no formal follow-up research on the current five-year cycle (i.e., 1997-98 through 2001-02).

Table 3

Ratings of 1993-97 Performance-Funding Standards

<table>
<thead>
<tr>
<th>Rating as a Measure of Quality</th>
<th>Perceived Effectiveness in Promoting Improvement (1)</th>
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<tbody>
<tr>
<td></td>
<td>Yes</td>
</tr>
<tr>
<td>2 year colleges</td>
<td></td>
</tr>
<tr>
<td>Peer review (Program)</td>
<td>3.31</td>
</tr>
<tr>
<td>Placement</td>
<td>3.33</td>
</tr>
<tr>
<td>Accreditation</td>
<td>3.31</td>
</tr>
</tbody>
</table>
Table 3 (Continued)

<table>
<thead>
<tr>
<th>Rating as a Measure of Quality</th>
<th>Perceived Effectiveness in Promoting Improvement (1)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2 year colleges</td>
<td>Yes</td>
</tr>
<tr>
<td>Improvement actions</td>
<td>3.08</td>
</tr>
<tr>
<td>Student and Alumni surveys</td>
<td>3.00</td>
</tr>
<tr>
<td>Major field tests</td>
<td>2.42</td>
</tr>
<tr>
<td>General Education tests</td>
<td>2.29</td>
</tr>
<tr>
<td>Retention and graduation goals</td>
<td>2.00</td>
</tr>
<tr>
<td>Minority/other enrollment goals</td>
<td>1.85</td>
</tr>
</tbody>
</table>

(1) Includes two-year and four-year schools

Source: Banta et al. (1997, p. 29)

Chapter Summary

This chapter introduced current literature addressing external mandates, especially related to regional accreditation and state planning requirements. While it was acknowledged that institutional cultures have a major impact on the institutional effectiveness of community colleges,
this literature review primarily focused on the major works considering the unique context and influences of institutional effectiveness, research, and planning mandates. The literature review provided a substantial framework and foundation for the current study as it relates to assessing external mandates as influences on institutional practice, performance, and effectiveness defined as use of results for improvement in Tennessee's 14 two-year colleges.

Overall, these mandates suggest a number of influences (e.g., independent variables) related to the effectiveness of community colleges. Consistent with the major themes previously addressed, presented from the perspective of mandates that influence effectiveness, the following independent variables were selected as the key focuses of this study:

- Implementation of SACS Criteria on Institutional effectiveness (compliance);
- Implementation of SACS Criteria on Institutional Research (compliance);
- TBR Strategic Planning Mandate: Focus on External Environment (compliance);
- TBR Strategic Planning Mandate: Focus on Planned Change (compliance); and
- TBR Report Card (perceived importance)
Specifically, the impact of compliance with the selected mandates is expected to impact institutional effectiveness as measured from two perspectives (i.e. dependent variables):

1. The perceived level of institutional performance based upon performance funding assessments results; and

2. The perceived use of performance funding assessment results for making subsequent institutional improvements.

The remainder of this study will address the utilization of these variables for a study of mandates, institutional practices, performance, and the use of assessment results for improvement from the perspective of Tennessee's community college leaders.
CHAPTER 3
RESEARCH METHODOLOGY

Chapter 3 describes the research design, methodology, and the population used in support of this study. Accordingly, a description of the survey-based data collection strategy is introduced along with a discussion of the survey development process, the survey instrument, data collection time-frames and procedures, as well as an associated statistical data analysis plan. Detailed research hypotheses underlying this study are also specified along with related operational definitions for each independent and dependent variable of the study.

Research Design

This study relied on a causal-comparative research design that represents a non-experimental research methodology. The design enabled an assessment of the influence of selected external community college mandates on associated institutional practices, as well as institution performance, as perceived by Tennessee community college leaders. Measurement of institutional effectiveness is uniquely addressed through the combining of both"actual"
and "perceived" institutional performance results. For the purposes of this study, perceived compliance with specific Southern Association of Colleges and Schools and Tennessee Board of Regents planning and institutional effectiveness mandates provides the foundation for measurement of independent variables influencing both institutional performance and institutional use of assessment results for improvement.

Gall, Borg, and Gall (1996) defined the analysis of pre-existing independent variables, variables that are not subject to experimental manipulation, as a causal-comparative research design. In this study, the selection of and the hypothesized relationships between independent and dependent variables was based on current assessment literature, as reflected in the chapter two review of published works on these various subjects.

Several research design limitations were specifically acknowledged: (1) lack of researcher control over the environment of Tennessee community colleges generally prohibited researcher measurement or control over other variables that could influence both independent and dependent variables; (2) potential inter-relationships among the independent variables were not subject to control; and
(3) the creation of a new survey instrument introduced potential threats to underlying study validity and reliability. Moreover, while the design of the survey instrument was based upon the active involvement of an expert panel comprising individuals knowledgeable of related research literature, utilization of experts in the survey development and validation process does not necessarily negate all potential reliability and validity concerns.

**Research Population**

The population of this study included senior level community college leaders in the 14 Tennessee community colleges. These senior leaders included: (1) the presidents, vice presidents, and designated key professional staff as defined in system policy; (2) senior institutional academic leaders; and (3) specialized institutional planning and research staff fulfilling planning, research, and performance funding coordinators roles.

Selection of the president, vice presidents, and other key institutional executives was initially derived from TBR policy identifying institutionally designated leaders at each Tennessee community college. This policy identified 65 useable i.e., non-vacant positions of institutional leaders
both by name and title per institution. However, from the perspective of this research project, institutional leadership defined solely by this policy was too narrowly delineated in two areas: (1) academic leaders; and (2) planning, research, and performance funding leaders. Due to these limitations, it was necessary to expand the pool of leaders included within this study in these two specific areas.

With regard to the academic leaders, generally only one of the approximately five institutional leaders specified in the TBR "key administrators" policy represented the institution's instructional function i.e., the vice-president for academic affairs. As such, there remained a strong justification for including additional academic leaders. Overall, this justification was based upon the need for broader representation of the specific community college leaders generally knowledgeable of the subject matter addressed by the research questions, i.e., the mandates under consideration are ultimately focused on improving academic performance in community colleges.

To provide greater representation of the academic function, up to four additional academic leaders beyond institutional vice presidents of academic affairs were added
to the study for each Tennessee community college. These institutional academic leaders were referred by the respective institutional academic vice presidents. Each institutional academic vice president was contacted and asked to provide the names of up to four additional senior academic leaders under his/her supervision for participation in this study. Subsequently, each community college academic vice president responded favorably to the request and provided the name of three or four additional leaders who were then added to the study population. Overall, 52 such academic leaders were identified and added to the community college leadership population.

It was also deemed necessary and appropriate to add the institutional planning, research, and performance funding leaders from community colleges throughout the system, if these individuals were not already previously included within the population of leaders identified either through policy or through referral by their academic vice presidents. Inclusion of the institutional planning, research, and performance funding leadership representatives was justified from the perspective of the specific subject matter under investigation. Unfortunately however, these technical and somewhat overlapping job functions are often
either combined into a single position, or separately combined with other institutional functions and leadership roles. Tennessee community colleges retain significant discretion in developing professional positions and associated position responsibilities; a vice president for academic affairs at one institution may be responsible for planning and performance funding as well as the overall management of the academic function. At another institution, these job responsibilities could be reflected in as many as three separate and distinct positions.

For the purposes of this research project, it was necessary to contact each institution and interview knowledgeable staff with regard to institutional position responsibilities for planning, research, and performance funding staff functions. Each officially designated institutional performance funding coordinator was contacted and asked to provide an overview of the unique designation of these roles at his/her respective institutions. Based upon this information, only 15 additional planning, research, and performance funding related administrative leaders were appropriate to be added to the leadership pool; many of these professionals had already been selected for inclusion. Overall, very limited researcher discretion was
necessary in selecting leaders to be included in the population. For example, such discretion was sparingly used to ensure that no individual institution was either under or over represented with regard to leaders.

In total, 132 Tennessee community college leaders were identified to be included within the community college leadership population and were subsequently surveyed. As three of these leadership positions were actually vacant, the actual population count was 129. Because all members of the community college leadership population as previously defined, were specifically identified and each individual so identified was included in the survey, sampling per se was not necessary for this research project.

Instrumentation and Field Testing

I developed the survey instrument used in this research project consistent with the initial research questions and the related literature reviews previously introduced. A new survey instrument was required because there was no existing instrument currently available, either in total or in part, that adequately addressed the specific research issues currently under investigation. The initial survey questions were developed to relate and ultimately answer the research
questions and related hypotheses identified within this study. Initial survey design and question content were continually subjected to considerable external review and evaluation, including a review and evaluation by an expert panel, a field test, and a final small scale pilot application. Associated issues of validity and reliability were also considered throughout the survey development process.

After the development of the draft survey, an expert panel based review and validation process was developed and implemented. A select panel of five individuals with expertise in the subject matter, as well as survey-based research, was established in support of this project. These individuals were specifically recruited to be part of a validation panel. To ensure that panel member candidates understood the commitment they were being asked to fulfill, each of these individuals was provided with an overview of the process and associated time constraints. Each panel member initially requested to participate in the survey both agreed to participate and subsequently completed the process, for a 100% response rate.
Expert Panel Survey Validation

The draft survey was re-formatted (Appendix A) to facilitate the evaluation of question content and was included within a special portfolio to create an expert panel member review package. Each panelist received a draft survey and the following items: (1) a brief overview of appropriate literature, and associated literature reviews, citations, and examples; (2) common definitions of validity; (3) a survey rating form for evaluating the content of each question; and (4) a form to recommend survey question changes including question additions, deletions, and rewording/modification. Also provided with each question was a space for a ranking of the appropriateness of the question, as well as space for additional comments by the members of the expert panel. Panelists were provided with approximately two weeks in which to conduct their evaluations. Further, four out of the five panel members were subsequently interviewed with regard to their comments and suggestions.

The draft survey questions were required to achieve a minimum score by the expert panel members on an "appropriateness" ranking scale. As requested, panel members ranked each question on a validity appropriateness scale of
1 to 4 ("1" not appropriate, "2" somewhat appropriate, "3" appropriate, and "4" very appropriate). Questions that did not achieve an average rating of 3.0 were to be modified in accordance with recommended changes or subsequently deleted; however, each question exceeded the threshold when panel member scores were averaged. While issues of reliability were to be addressed with a subsequent field test, survey question reliability was also addressed by several members of the expert panel. Accordingly, questions were modified consistent with panel member recommendations.

**Survey Field And Pilot Tests**

The revised survey was field tested using 20 individuals who were in roles similar to the actual population of respondents. Each field test respondent was asked to fulfill two responsibilities: (1) respond to the actual survey questions; and (2) in responding to the actual questions, consider questionnaire changes that would enhance the question’s reliability (i.e. promote consistent interpretation by respondents). In addition, field test participants were asked to evaluate any aspect of each question on the survey, and were specifically requested to recommend alternative wording that would ensure unambiguous
and clearly worded questions. The recommended changes offered related to adding clarification to the wording of several question prompts. In addition to the proposed changes, field test participants were asked to briefly discuss their recommended changes with the researcher. Consistent with these discussions, all recommended changes were incorporated into what became the final survey.

Subsequent to the survey instrument changes emanating from the expert panel and the field test, a final version of the survey was developed and subjected to a small pilot test. Respondents from four East Tennessee community colleges participated in the pilot, as well as a few individuals who were previously in a role as a community college leader. Pilot test respondents were provided with two weeks to return their surveys and associated recommendations for changing the survey. Each pilot test participant also had the opportunity to discuss his/her comments and recommendations directly with the researcher. Overall, several pilot test participants offered comments about questions and associated response scales. These suggested changes helped improve the intended meaning of several questions and the associated responses. These comments were then incorporated into the final instrument
(Appendix B). However, the most important determination resulting from the pilot test related to preliminary data analysis; pilot test results indicated a desired level of variation that would be supportive of statistical manipulation.

**Data Collection and Follow-up**

The community college leaders in the population were identified by name and title at each of the two-year colleges in the Tennessee Board of Regents System. During the pilot test, more than one participant suggested that, given the nature of the questions and the work schedules of institutional leadership individuals to be surveyed, the most preferred method of data collection would be to recruit a campus coordinator at each community college. These campus contacts would assist with the distribution and collection of surveys at each institution. Most importantly, the campus contact could provide for personal follow-up, and thus increase the chances of a favorable response rate.

In early May of 1999, a survey was distributed to each leadership respondent identified. As recommended during the pilot test, a survey coordinator was recruited for each
institution. Individuals acting as campus contacts were generally recruited from the ranks of institutional research personnel. These individuals, knowledgeable of professional survey techniques and requirements, were responsible for distributing and collecting surveys, returning completed surveys, and providing initial follow-up requests. To ensure the privacy of each respondent, all leaders to be surveyed received a pre-addressed envelope that allowed them to complete the survey, seal it in a secure envelope, and return it to the campus coordinator. As such, campus coordinators were not able to review the results of other respondents. Respondents also had the option of returning the survey directly to the researcher, but less than 5% chose that option.

The first follow-up of non-respondents was initiated by the campus contact, generally within a week from the initial date of distribution. In response to a request from the researcher, a second follow-up was initiated by campus contacts, approximately three weeks from the initial date of distribution. Finally, I sent follow-up letters to non-respondents two weeks after the second campus contact follow-up. The follow-up letter included procedures for the respondents to obtain another copy of the survey instrument.
if necessary. These procedures enabled an overall favorable response rate of slightly over 74%.

**Statistical Analysis Plan**

The level of statistical analysis and the selection of particular techniques were substantially limited by the nature of the survey questions and the associated ordinal level of measurement generally used for both independent and dependent variables. A basic element of the statistical analysis was the use of descriptive statistics in support of the broader research questions underlying this study. These statistics included means, standard deviations, and frequency distributions. In addition, measures of association, including bivariate and multi-variate analysis, also were used.

Additionally, consistent with commonly accepted applications in the literature (e.g. Rogers & Genetemann, 1989; Smart & Hamm, 1993b), ordinal Likert scaling has been justified to be appropriately used for several interval level data analysis techniques (correlation, ANOVA, and regression analysis, etc.) in limited circumstances. Consistent with this literature, interval level bivariate correlation analysis and multi-variate regression
techniques were also used in the conduct of this study.

Variables

Five categories of independent variables were identified from the literature and were used for this study. These include:

REGIONAL SACS ACCREDITATION MANDATES

X1. Level of Compliance: SACS Institutional Effectiveness Mandates; and
X2. Level of Compliance: Institutional Research Mandates.

TENNESSEE STATE MANDATES

X3. Level of Compliance: Strategic Plan Mandate on the External Environment;
X4. Level of Compliance: Strategic Plan Mandate on Planned Change; and

Similarly, two dependent variables were identified consistent with the literature identified in chapter 2:

Y1 Effectiveness of the Institution on Performance Measures ("actual" and "perceived"); and
Y2 Use of Performance Assessment Results for Continuous Improvement.
Operational Definitions

Measurement of all independent variables was based upon specific operational definitions that used selected Likert scales on specific survey questions. The operational definitions of each of the variables were reflected as indexes that aggregate the results of two or more questions per variable. These indexes provided the basis for statistical measurement and manipulation. While the specific definitions and procedures for developing the indexes for each independent and dependent variable are addressed in the following chapter, the indexes were essentially designed to provide a measurement for the following operational definitions.

Overall, this study used five independent variables defined as follows. The first independent variable (X1), Compliance with SACS Institutional Effectiveness Mandates, was defined as the level of institutional compliance with specific SACS institutional effectiveness Criteria standards. The second independent variable (X2) Compliance with Institutional Research Mandates, was defined as the level of institutional compliance with specific SACS institutional research standards from the current Criteria for Accreditation. The third independent variable (X3),
State Planning Mandate - Focus on Planned-Change, was defined as the level of institutional compliance toward achievement of select TBR planning mandates reflected as priorities (e.g. equity, excellence, accessibility, accountability, etc.) for the planning period. The fourth independent variable (X4), State Planning Mandate - Focus on Environment, was defined as the level of institutional compliance with planning guidelines related to the assessment of the external environment. Finally, the fifth independent variable (X5), Report Card Mandate, was defined as the level of perceived long term importance of the new TBR report card mandate.

This study used two dependent variables. The first dependent variable (Y1), Institutional Effectiveness, was defined as an index that combines the "perceived" and "actual" institutional performance on the performance funding measures. For this application, the "actual" measure of institutional performance was defined as the performance funding score for the respondent’s institution. The second dependent variable (Y2), Use of Assessment Results for Continuous Improvement was defined as the perceived level of use of performance funding assessment results for continuous institutional improvement.
Hypotheses

Several hypotheses were introduced using institutional effectiveness as the dependent variable. For each independent variable, a corresponding second dependent variable, use of institutional performance results for continuous improvement, were also used. These hypotheses specifically addressed the initial research questions underlying this study.

Ho1: There is no association between perceived institutional performance and actual performance as measured by the institutional performance funding score.

Ho2: There is no relationship between perceived compliance with SACS institutional effectiveness mandates and institutional performance (actual and perceived) on standard measures of effectiveness.

Ho3: There is no relationship between perceived compliance with SACS institutional effectiveness mandates and use of institutional performance results for continuous improvement.

Ho4: There is no relationship between perceived compliance with SACS institutional research mandates and institutional performance (actual and perceived) on
standard measures of effectiveness.

Ho5: There is no relationship between perceived compliance with SACS institutional research mandates and use of institutional performance results for continuous improvement.

Ho6: There is no relationship between perceived compliance with TBR external planning focus mandates and institutional performance (actual and perceived) on standard measures of effectiveness.

Ho7: There is no relationship between perceived compliance with TBR external planning focus mandates and use of institutional performance results for continuous improvement.

Ho8: There is no relationship between perceived compliance with TBR planned change mandates and institutional performance (actual and perceived) on standard measures of effectiveness.

Ho9: There is no relationship between perceived compliance with TBR planned mandates and use of institutional performance results for continuous improvement.

Ho10: There is no relationship between perceived importance of the TBR report card mandate and institutional
performance (actual and perceived) on standard measures of effectiveness.

Ho11: There is no relationship between perceived importance of the TBR report card mandate and use of institutional performance results for improvement.

Ho12: There is no difference between academic and administrative leaders in perceived compliance with: (1) external mandates; (2) institutional performance (actual and perceived) on standard measures of effectiveness; and (3) use of assessment results for improvement.

Ho13: There is no relationship between the combined impact of independent "mandate" variables and (1) institutional performance and (2) use of institutional performance results for continuous improvement.

Chapter Summary

This chapter addressed the planning and implementation of a survey based research methodology supporting this causal comparative study. Specific research hypotheses were introduced along with the identification and definition of independent and dependent variables. The development of the survey instrument was also discussed along with subsequent research and validation activities to promote instrument
validity and reliability. Finally, the specific methodology underlying this study was described along with related discussion of proposed statistical techniques and applications.
CHAPTER 4
DATA ANALYSIS

Chapter four provides the findings of the study resulting from the analysis of data collected in accordance with the procedures and methodologies introduced in Chapter Three. Data collection results, associated statistical analysis, and selected reporting considerations are also addressed. Overall, this chapter comprises three related elements. The first element describes data collection efforts emanating from the survey of Tennessee community college leaders. The second element provides a descriptive summary of major survey responses consistent with the overall themes of this study. Finally, the third section introduces the results of the more statistical hypothesis testing.

Data Collection

Most of the data providing the foundation for this study was derived from the survey instrument and methodology previously introduced in chapter three. Overall, 129 surveys were distributed to selected leaders of Tennessee community
colleges. From that distribution 96 surveys was returned in useable form for a response rate of 74%. While three additional surveys were also returned, they were not in a useable form due to the level of incompleteness of the responses. Therefore, a final total of 96 cases was included in the study.

Survey responses were received from leaders at all 14 two-year colleges in the state of Tennessee. Response rates from the 14 individual two-year colleges ranged from 50% to 100% as follows:

Chattanooga State Technical Community College (6 useable surveys returned for a 60% response);

Cleveland State Community College (8 useable surveys returned for a 100% Response);

Columbia State Community College (7 useable surveys returned for a 78% Response);

Dyersburg State Community College (9 useable surveys returned for a 100% Response);

Jackson State Community College (4 useable surveys returned for a 50% Response);

Motlow State Community College (6 useable surveys returned for a 66% Response);

Nashville State Technical Community College (4 useable surveys returned for a 50% Response);

Northeast State Technical Community College (7 useable surveys returned for a 78% Response);
Pellissippi State Technical State Community College (9 useable surveys returned for an 81% Response);

Roane State Community college (4 useable surveys returned for a 50% Response);

Shelby State Community College (4 useable surveys returned for a 50% Response);

State Technical Institute of Memphis (8 useable surveys returned for a 93% Response);

Volunteer State Community College (9 useable surveys returned for a 90% Response);

Walters State Community College (11 useable surveys returned for a 92% Response).

Overview of the Data

Respondents were self-categorized by job title, primary functional responsibility (i.e., administrative, academic, or joint academic/administrative), years of experience in their current institutions, and years of experience within higher education. With regard to years at each subject’s college, the average length of employment at each respondent’s community college was 13.8 years. This suggests that Tennessee community college leaders tend to be “homegrown,” and to have significant experience in their respective institutions.

Overall, the average respondent has been in higher education just slightly over 16 years. Tables 4 and 5
identify respondents by employment titles and job functions. As expected, over two-thirds of the respondents represent community college deans, vice presidents, or presidents. Regarding functional responsibility, the sample is fairly evenly divided among the functions of academic (37.0%), administrative (34.8%), and joint academic and administrative (28.3%) duties.

Table 4
Respondents by Employment Title

<table>
<thead>
<tr>
<th>Category</th>
<th>Frequencies</th>
<th>Percent</th>
<th>Valid</th>
</tr>
</thead>
<tbody>
<tr>
<td>Presidents</td>
<td>11</td>
<td>11.5</td>
<td>12.1</td>
</tr>
<tr>
<td>Vice-Presidents</td>
<td>31</td>
<td>32.3</td>
<td>34.1</td>
</tr>
<tr>
<td>Deans</td>
<td>23</td>
<td>24.0</td>
<td>25.3</td>
</tr>
<tr>
<td>Directors</td>
<td>18</td>
<td>18.7</td>
<td>19.8</td>
</tr>
<tr>
<td>Others</td>
<td>8</td>
<td>8.3</td>
<td>8.8</td>
</tr>
<tr>
<td>Missing</td>
<td>5</td>
<td>5.2</td>
<td>NA</td>
</tr>
<tr>
<td>Total</td>
<td>96</td>
<td>100.0</td>
<td>100.0</td>
</tr>
</tbody>
</table>
Table 5

Summary of Respondents by Primary Job Function

<table>
<thead>
<tr>
<th>Category</th>
<th>Frequencies</th>
<th>Percent</th>
<th>Valid</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>N</td>
<td>%</td>
<td></td>
</tr>
<tr>
<td>Academic</td>
<td>34</td>
<td>35.4</td>
<td>37.0</td>
</tr>
<tr>
<td>Administrative</td>
<td>32</td>
<td>33.3</td>
<td>34.8</td>
</tr>
<tr>
<td>Joint &amp; Administrative</td>
<td>26</td>
<td>27.1</td>
<td>28.2</td>
</tr>
<tr>
<td>Missing</td>
<td>4</td>
<td>4.2</td>
<td>NA</td>
</tr>
<tr>
<td>Total</td>
<td>96</td>
<td>100.0</td>
<td>100.0</td>
</tr>
</tbody>
</table>

Survey Item Responses

From a more broadly focused perspective, this section introduces summary statistics on survey items of primary interest to this study, as depicted in the following pages. These summary responses represent statistical descriptions providing important insights into the data. As such, the discussion is an important precursor to understanding the overall background data prior to the more detailed, focused, and formal statistical applications used for hypothesis testing in the following sections of this chapter. Moreover, subsequent hypothesis testing and consideration of research
questions draw heavily on the following overview of survey item responses,

The areas addressed in this descriptive overview of survey results includes the following:

1. Personal knowledge of institutional effectiveness programs, documents, and materials.
2. Summary evaluation of the effectiveness of the performance funding program.
3. Accuracy of individual performance funding assessments.
4. Perceived institutional performance on core institutional assessments.
5. Perceived use of core institutional assessment performance results for institutional improvements.
6. Level of perceived importance respondent institution places on institutional effectiveness processes, documents, and materials.
7. Perceived expectations of the Tennessee Board of Regents planning process.
8. Degree to which the institutional planning process promotes institutional consideration of external environment factors.
9. Ranking (highest and lowest) of planning and effectiveness issues and practices.

On survey questions addressing respondents' "Personal Knowledge of Institutional Effectiveness Processes, Documents, and Materials," the data in Table 6 depict the summary results.
Table 6

Personal Knowledge of Institutional Effectiveness Programs:
Documents, and Materials (Ranked by Mean)

<table>
<thead>
<tr>
<th>Category</th>
<th>n</th>
<th>Mean</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Your institutional planning process</td>
<td>96</td>
<td>3.72</td>
<td>.49</td>
</tr>
<tr>
<td>Your institutional plan</td>
<td>96</td>
<td>3.69</td>
<td>.51</td>
</tr>
<tr>
<td>Performance funding program</td>
<td>96</td>
<td>3.46</td>
<td>.75</td>
</tr>
<tr>
<td>SACS Institutional Effectiveness Manual</td>
<td>96</td>
<td>3.25</td>
<td>.72</td>
</tr>
<tr>
<td>TBR Report Card</td>
<td>95</td>
<td>3.25</td>
<td>.85</td>
</tr>
<tr>
<td>SACS Criteria III: Planning and Eval.</td>
<td>96</td>
<td>3.12</td>
<td>.79</td>
</tr>
<tr>
<td>TBR Planning Process</td>
<td>95</td>
<td>3.03</td>
<td>.94</td>
</tr>
<tr>
<td>SACS Criteria III: Instit. Research</td>
<td>95</td>
<td>3.02</td>
<td>.84</td>
</tr>
<tr>
<td>TBR Agenda 2000</td>
<td>93</td>
<td>2.51</td>
<td>1.09</td>
</tr>
<tr>
<td>THEC Strategic Plan (Uniting Tennesseans)</td>
<td>95</td>
<td>2.23</td>
<td>1.12</td>
</tr>
</tbody>
</table>

On a Likert-type scale ranging from 0 to 4, the
Tennessee leaders responding to this survey generally rated themselves as knowledgeable about external mandates, associated institutional research and effectiveness practices, and related materials and documents. However, there is considerable variation in the perceived level of knowledge for the various elements. For example, the highest level of knowledge expressed understandably relates to the respondents' knowledge of their own institutional "planning process" (Mean = 3.72) and "strategic plans" (Mean = 3.69), followed by their understanding of the Performance Funding program (Mean = 3.46).

For the most part, however, leaders generally tend to be more familiar with SACS documents and criteria, and the new Report Card than they are with the key state higher education planning processes and documents of their respective governing boards. The lowest knowledge score (Mean = 2.23) was knowledge of the State Higher Education Coordinating Board (THEC) strategic plan. Even the TBR governing board strategic plan for the system (which includes all of the two-year institutions) ranked next to last with a mean of 2.51. These findings suggest that accreditation mandates, and the new report card may be being perceived as having more immediate importance than state
plans. In fact, as represented by these varying levels of knowledge, community college leaders may also tend to perceive that the state planning processes are more important than the resultant state planning documents. Correspondingly, it appears that governing board planning documents and processes have lower priority levels and thus leaders have less knowledge of them.

On survey questions addressing respondents' "Summary Evaluation of the Tennessee Performance Funding Program," the data depicted in Table 7 provides summary results. While one-third of community college leaders find the performance funding program to be an effective measure of institutional effectiveness, approximately two-thirds of the performance funding leaders in Tennessee community colleges find it only somewhat effective, at best.

While this is not an overwhelming endorsement of the performance funding program as a measure of effectiveness, fewer than 10% actually find the program to be either "barely effective" or "ineffective." Ironically, if summary evaluation results of this low level of magnitude were received by a Tennessee community college on a performance funding assessment in a given year, no "reward" funding would be awarded.
Table 7

Summary Evaluation of the Effectiveness of the Performance Funding Program

<table>
<thead>
<tr>
<th>Category</th>
<th>Frequency n</th>
<th>Percent</th>
<th>Valid</th>
</tr>
</thead>
<tbody>
<tr>
<td>Very Effective</td>
<td>1</td>
<td>1.0</td>
<td>1.1</td>
</tr>
<tr>
<td>Effective</td>
<td>30</td>
<td>31.3</td>
<td>33.7</td>
</tr>
<tr>
<td>Somewhat Effective</td>
<td>49</td>
<td>51.0</td>
<td>55.1</td>
</tr>
<tr>
<td>Barely Effective</td>
<td>8</td>
<td>8.3</td>
<td>9.0</td>
</tr>
<tr>
<td>Ineffective</td>
<td>1</td>
<td>1.0</td>
<td>1.1</td>
</tr>
<tr>
<td>No Answer</td>
<td>7</td>
<td>7.3</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>96</td>
<td>100.0</td>
<td>100.0</td>
</tr>
</tbody>
</table>

On survey questions addressing respondents' evaluation of the "Accuracy of Individual Performance Funding Assessments" the data in Table 8 depict the summary results. This table addressed assessment elements that are common to all public community colleges in the state of Tennessee. Many of these elements are derived from institutional assessment programs.
Table 8

Accuracy of Individual Performance Funding Assessments

<table>
<thead>
<tr>
<th>Category</th>
<th>n</th>
<th>Mean</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>EVALUATION BY ASSESSMENT AREA:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Program Accreditation</td>
<td>81</td>
<td>7.49</td>
<td>1.31</td>
</tr>
<tr>
<td>Job Placement</td>
<td>81</td>
<td>6.72</td>
<td>1.99</td>
</tr>
<tr>
<td>Program Peer Review</td>
<td>71</td>
<td>6.69</td>
<td>1.46</td>
</tr>
<tr>
<td>Student Survey</td>
<td>82</td>
<td>6.62</td>
<td>1.51</td>
</tr>
<tr>
<td>Institutional Plan Goals</td>
<td>86</td>
<td>6.45</td>
<td>1.67</td>
</tr>
<tr>
<td>Alumni Survey</td>
<td>83</td>
<td>6.31</td>
<td>1.88</td>
</tr>
<tr>
<td>Major Field Testing</td>
<td>71</td>
<td>6.28</td>
<td>1.97</td>
</tr>
<tr>
<td>Retention/Persistence</td>
<td>83</td>
<td>5.95</td>
<td>1.92</td>
</tr>
<tr>
<td>State Planning Goals</td>
<td>77</td>
<td>5.76</td>
<td>1.88</td>
</tr>
<tr>
<td>General Education</td>
<td>81</td>
<td>5.37</td>
<td>2.34</td>
</tr>
<tr>
<td>General Education (Pilot Test)</td>
<td>52</td>
<td>5.37</td>
<td>1.49</td>
</tr>
<tr>
<td>OVERALL EVALUATION: (All Standards)</td>
<td>78</td>
<td>6.44</td>
<td>1.53</td>
</tr>
</tbody>
</table>

This table indicates that performance funding assessment elements are viewed from a broad range of perceptions related to their accuracy. On a Likert-type
scale from 0 to 9, the accuracy ratings range from a high of 7.49 to a low of 5.37. In the lower range are the critical assessment areas of general education, as well as retention and persistence. Program accreditation, at 7.49, has the highest accuracy rating, but the ratings quickly drop off from this high to the more moderate range of fives to sixes.

Correspondingly, the summary evaluation rating of 6.44 indicates that the respondents perceive the overall accuracy of performance funding assessments as moderate. Additionally, the large range of "accuracy" score results for each of the various assessments indicates that these measures, as individual performance funding program assessment elements, are perceived to be at an accuracy level that is at least somewhat of a questionable nature at best. In general, this result is not a particularly overwhelming endorsement of the accuracy of the individual and combined overall core measures of the Tennessee performance funding program.

On survey questions addressing respondents' "Perceived Performance on Core Institutional Assessments", the data in Table 9 depicts the summary results.
Table 9

Perceived Institutional Performance on Core Institutional Assessments

<table>
<thead>
<tr>
<th>Category</th>
<th>n</th>
<th>Mean</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Program Accreditation</td>
<td>89</td>
<td>8.43</td>
<td>.85</td>
</tr>
<tr>
<td>Program Peer Review</td>
<td>80</td>
<td>7.73</td>
<td>1.45</td>
</tr>
<tr>
<td>Job Placement</td>
<td>85</td>
<td>7.42</td>
<td>1.85</td>
</tr>
<tr>
<td>Institutional Plan Goals</td>
<td>85</td>
<td>7.28</td>
<td>1.56</td>
</tr>
<tr>
<td>Student Survey</td>
<td>83</td>
<td>7.18</td>
<td>1.33</td>
</tr>
<tr>
<td>Alumni Survey</td>
<td>85</td>
<td>7.08</td>
<td>1.62</td>
</tr>
<tr>
<td>Major Field Testing</td>
<td>78</td>
<td>7.06</td>
<td>1.77</td>
</tr>
<tr>
<td>State Planning Goals</td>
<td>81</td>
<td>6.80</td>
<td>1.82</td>
</tr>
<tr>
<td>General Education (Pilot Test)</td>
<td>47</td>
<td>6.38</td>
<td>1.91</td>
</tr>
<tr>
<td>General Education</td>
<td>90</td>
<td>6.27</td>
<td>2.16</td>
</tr>
<tr>
<td>Retention/Persistence</td>
<td>86</td>
<td>6.11</td>
<td>1.84</td>
</tr>
<tr>
<td>SUMMARY EVALUATION:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Overall (All Standards)</td>
<td>83</td>
<td>7.20</td>
<td>1.24</td>
</tr>
</tbody>
</table>

The scale on these questions was also Likert-type.
based, with rankings on a 10-point scale ranging from 0 to 9. Performance was perceived to be lowest on retention and persistence assessments (Mean = 6.11), and highest on program accreditation (Mean = 8.43). Interestingly, the average perceived performance score provided by the respondents was 7.20 which equates to an overall perceived effectiveness rating that is in the moderate range. In contrast, the corresponding average performance funding score for these same assessments was over 93%. Obviously, Tennessee community college leaders rate their perceived performance somewhat more conservatively than what the actual performance funding scores would suggest. For survey questions on the “Perceived Use of Core Institutional Performance Results for Institutional Improvements” the data in Table 10 depict the results.

Table 10
Perceived Use of Core Institutional Performance Results for Institutional Improvements.

<table>
<thead>
<tr>
<th>Category</th>
<th>n</th>
<th>Mean</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>EVALUATION BY STANDARD:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Program Accreditation</td>
<td>86</td>
<td>7.18</td>
<td>2.29</td>
</tr>
</tbody>
</table>
Table 10 (Continued)

<table>
<thead>
<tr>
<th>Category</th>
<th>n</th>
<th>Mean</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Job Placement</td>
<td>83</td>
<td>6.33</td>
<td>2.22</td>
</tr>
<tr>
<td>Program Peer Review</td>
<td>77</td>
<td>6.29</td>
<td>2.44</td>
</tr>
<tr>
<td>Institutional Plan Goals</td>
<td>82</td>
<td>6.09</td>
<td>2.33</td>
</tr>
<tr>
<td>Alumni Survey</td>
<td>82</td>
<td>5.73</td>
<td>2.38</td>
</tr>
<tr>
<td>Major Field Testing</td>
<td>73</td>
<td>5.68</td>
<td>2.44</td>
</tr>
<tr>
<td>Student Survey</td>
<td>81</td>
<td>5.64</td>
<td>2.45</td>
</tr>
<tr>
<td>General Education</td>
<td>87</td>
<td>5.56</td>
<td>2.57</td>
</tr>
<tr>
<td>State Planning Goals</td>
<td>79</td>
<td>5.49</td>
<td>2.32</td>
</tr>
<tr>
<td>Retention/persistence</td>
<td>82</td>
<td>5.23</td>
<td>2.43</td>
</tr>
<tr>
<td>Gen. Educ. Pilot Test</td>
<td>49</td>
<td>5.00</td>
<td>2.43</td>
</tr>
<tr>
<td>OVERALL EVALUATION</td>
<td></td>
<td>5.95</td>
<td>2.33</td>
</tr>
</tbody>
</table>

This is a critically important table for this study. Use of assessment results for improvement is at the very center of SACS, TBR, and most other methodologies for institutional planning, effectiveness, and improvement processes. While current assessment results describe the "state of things the way they are", use of assessments for improvements, especially as part of a continuous improvement
process, provides capacity for expanding future institutional performance levels. As depicted in Table 10, also on a Likert-type scale ranging from 0 to 9, use of assessments for improvement is not generally perceived by community college leaders to be at the highest possible level.

For example, the overall summary evaluation by respondents regarding the level of use of assessment results for continuous improvement is in the moderate range. Understandably, use of results is highest when related to assessment areas that tend to require documentation of the use of assessment (program accreditation, mean = 7.18; and program peer review, mean = 6.29) for external accreditors or reviewers. Of major concern should be the discernibly low "use of assessment" scores in such critical areas of the college as general education (Mean = 5.56) and retention and persistence (Mean = 5.23) assessments.

On survey questions addressing respondents' "level of Importance Respondent Institution Places on Institutional Effectiveness Processes, Documents, and Materials" the data in Table 11 depicts the results. The survey question addressed by this particular table was on a "0 to 4" Likert-type scale.
Table 11

Level of Perceived Importance Institutions Place on Institution Effectiveness Processes, Documents, and Materials

<table>
<thead>
<tr>
<th>Category</th>
<th>n</th>
<th>Mean</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Performance Funding Program</td>
<td>93</td>
<td>3.57</td>
<td>.67</td>
</tr>
<tr>
<td>Institutional Plan Process</td>
<td>91</td>
<td>3.33</td>
<td>.83</td>
</tr>
<tr>
<td>Your Institutional Plan</td>
<td>91</td>
<td>3.30</td>
<td>.87</td>
</tr>
<tr>
<td>SACS Institutional Effectiveness Manual</td>
<td>92</td>
<td>3.21</td>
<td>.92</td>
</tr>
<tr>
<td>TBR Report Card</td>
<td>91</td>
<td>3.21</td>
<td>.87</td>
</tr>
<tr>
<td>SACS Criteria III: Planning and Eval.</td>
<td>93</td>
<td>3.17</td>
<td>.88</td>
</tr>
<tr>
<td>TBR Planning Process</td>
<td>92</td>
<td>3.12</td>
<td>.88</td>
</tr>
<tr>
<td>SACS Criteria III: Instit. Research</td>
<td>94</td>
<td>3.05</td>
<td>.89</td>
</tr>
<tr>
<td>TBR Agenda 2000</td>
<td>86</td>
<td>2.44</td>
<td>1.04</td>
</tr>
<tr>
<td>THEC Strategic Plan (Uniting Tennesseans)</td>
<td>87</td>
<td>2.21</td>
<td>1.14</td>
</tr>
</tbody>
</table>

The respondents view their institutions as placing the highest level of importance on performance funding (Mean =
3.57), which is understandable given the associated economic incentive. Also ranked high is the institutional planning process (Mean = 3.33), and the actual institutional plan (Mean = 3.30). The SACS institutional effectiveness manual, and the report card also ranked high. In contrast, the TBR strategic plan, and the THEC strategic plan, were perceived as being of little importance to the respondents' institutions. This is consistent with the previous finding regarding associated low levels of knowledge about state strategic planning elements.

On survey questions addressing respondents’ “Perceived Expectations of the TBR Planning Process” the data in Table 12 depict the summary results. These data are based upon a “0 to 4” Likert-type scale.

Table 12

Perceived Expectations of the Tennessee Board Of Regents Planning Process

<table>
<thead>
<tr>
<th>Category</th>
<th>n</th>
<th>Mean</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Compliance with TBR Policy</td>
<td>91</td>
<td>3.54</td>
<td>.69</td>
</tr>
</tbody>
</table>
Table 12 (Continued)

<table>
<thead>
<tr>
<th>Category</th>
<th>n</th>
<th>Mean</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Efficient Use of Budgetary Resources</td>
<td>90</td>
<td>3.47</td>
<td>.81</td>
</tr>
<tr>
<td>Promoting Accessibility</td>
<td>89</td>
<td>3.17</td>
<td>.86</td>
</tr>
<tr>
<td>Promoting Accountability</td>
<td>90</td>
<td>3.16</td>
<td>.96</td>
</tr>
<tr>
<td>Focusing Institutional Efforts</td>
<td>91</td>
<td>3.13</td>
<td>.82</td>
</tr>
<tr>
<td>Promoting Excellence</td>
<td>91</td>
<td>3.00</td>
<td>.92</td>
</tr>
<tr>
<td>Planned Progress and Change</td>
<td>88</td>
<td>2.95</td>
<td>.83</td>
</tr>
<tr>
<td>Promoting Workforce Development</td>
<td>90</td>
<td>2.87</td>
<td>.90</td>
</tr>
<tr>
<td>Promoting Articulation</td>
<td>90</td>
<td>2.84</td>
<td>.97</td>
</tr>
<tr>
<td>Promoting Equity</td>
<td>88</td>
<td>2.80</td>
<td>1.02</td>
</tr>
</tbody>
</table>

Interestingly, community college leaders perceive TBR planning process expectations to be primarily "compliance with TBR policy" and "budgetary efficiency," rather than the achievement of major TBR strategic goals related to workforce development, articulation, and equity. This finding is inconsistent with TBR planning process guidelines.
and stated policy. However, community college leaders may perceive that they are judged more, on a day-to-day basis, by their compliance with policy and organizational efficiency than by their planning accomplishments and thus view these areas as the most important planning priorities. However, from the TBR perspective, the relatively low level of perceived expectations regarding long-standing board priorities (e.g. workforce development, equity, articulation, etc.) may well be viewed as a serious concern if not a major system challenge as well.

On survey questions addressing respondents' perceived "Level Institutional Planning Process Promotes Institutional Consideration of External Environment Factors" the data in Table 13 depict the summary results. This Table is also on a Likert-type scale ranging in values from "0 to 4."

Table 13

<table>
<thead>
<tr>
<th>Category</th>
<th>n</th>
<th>Mean</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Technological Change</td>
<td>91</td>
<td>3.44</td>
<td>.81</td>
</tr>
</tbody>
</table>
Table 13 indicates that, as could be expected, community colleges are close to their service areas and their planning processes consider such external issues as technological change, service area needs, and business/industry needs. Interestingly, while the issue of external competition does not receive much attention, this phenomenon could be expected to change over time. Given the recent increases in the competitiveness of higher education, the environmental element of "competition" could be expected to be a greater concern in future institutional assessments of the external environmental. Consideration of "political influences" ranks low in comparison with most other external influences.

<table>
<thead>
<tr>
<th>Category</th>
<th>n</th>
<th>Mean</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Service Area Needs</td>
<td>90</td>
<td>3.40</td>
<td>.83</td>
</tr>
<tr>
<td>Business/Industry Changes</td>
<td>89</td>
<td>3.25</td>
<td>.82</td>
</tr>
<tr>
<td>Higher Education Trends</td>
<td>92</td>
<td>3.02</td>
<td>.84</td>
</tr>
<tr>
<td>Competition</td>
<td>91</td>
<td>2.97</td>
<td>.89</td>
</tr>
<tr>
<td>Political Influences</td>
<td>92</td>
<td>2.68</td>
<td>1.00</td>
</tr>
<tr>
<td>Social Changes</td>
<td>90</td>
<td>2.65</td>
<td>.98</td>
</tr>
</tbody>
</table>
environment assessment areas, a finding that is surprising given the major role of the Tennessee state political environment for these publicly funded institutions.

On survey questions addressing “Rankings (highest and lowest) of planning and effectiveness issues and practices” the data in Table 14 depict the summary results. This question is on a Likert-type scale ranging from "0 to 4."

Table 14

| Ranking (Highest and Lowest) of Planning and Effectiveness
| Issues and Practices |
|----------------------|----------------------|

<table>
<thead>
<tr>
<th>Category</th>
<th>n</th>
<th>Mean</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>HIGHEST RANKED</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>My college has a clear institutional mission statement.</td>
<td>86</td>
<td>3.49</td>
<td>.82</td>
</tr>
<tr>
<td>My institution formulates instructional goals</td>
<td>86</td>
<td>3.21</td>
<td>.80</td>
</tr>
<tr>
<td>My college's institutional research function effectively collects important data.</td>
<td>92</td>
<td>3.16</td>
<td>.95</td>
</tr>
<tr>
<td>My college considers external environment in planning.</td>
<td>91</td>
<td>3.16</td>
<td>.78</td>
</tr>
<tr>
<td>My college identifies strategic issues facing the college.</td>
<td>90</td>
<td>3.13</td>
<td>.84</td>
</tr>
</tbody>
</table>

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Table 14 (Continued)

<table>
<thead>
<tr>
<th>Category</th>
<th>n</th>
<th>Mean</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>SACS IE criteria compliance makes college more effective.</td>
<td>91</td>
<td>3.12</td>
<td>.94</td>
</tr>
<tr>
<td>LOWEST RANKED:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>My institution measures progress on instructional goals.</td>
<td>92</td>
<td>2.78</td>
<td>1.01</td>
</tr>
<tr>
<td>My college's strategic plan is designed to create change.</td>
<td>92</td>
<td>2.77</td>
<td>.96</td>
</tr>
<tr>
<td>My college regularly evaluates key college functions.</td>
<td>93</td>
<td>2.76</td>
<td>1.02</td>
</tr>
<tr>
<td>Planning requirements make college more effective.</td>
<td>91</td>
<td>2.71</td>
<td>.91</td>
</tr>
<tr>
<td>TBR Report Card promotes college effectiveness.</td>
<td>89</td>
<td>2.55</td>
<td>.99</td>
</tr>
<tr>
<td>Institutional research function has sufficient resources.</td>
<td>92</td>
<td>2.20</td>
<td>1.07</td>
</tr>
</tbody>
</table>

Table 14 addresses a range of perceptions with regard to the study variables. Overall, the table provides evidence for the following conclusions:

- While institutions tend to have mission statements, goals, and assessments, the more critical institutional
effectiveness functions of "regular assessment" and "measuring progress on goals" are ranked relatively lower.

- While institutional research is part of the institutional effectiveness process, institutional research is perceived to be insufficiently funded. Of greater importance is the perception that these functions tend not to be evaluated on a regular basis; and

- Respondents do not tend to perceive that their planning efforts emphasize planned change. Additionally, they do not tend to perceive that planning requirements make their college more effective. Of special note, with regard to the new report card mandate, leaders do not perceive that it will promote college effectiveness.

Statistical Analysis of Data

While individual question results could be used as variables for this study, reliability and validity can be strengthened through appropriately designed combinations of questions. Accordingly, measurement of independent and dependent variables in this study was based upon the use of indexes to create composite scores that incorporate the results of several similar and directly related questions.

Table 15 presents a listing of the indexed variables
and the associated question elements used to construct the composite score. For example, Table 15 identifies that the independent variable of "compliance with SACS Institutional Effectiveness criteria" is a score that is based upon the summation of responses for 11 questions, all measured on the same Likert-type scale ranging from 0 to 4. Thus the range of the composite score is from 0 to 44 for any given case.

In this study, all five independent variables, and both dependent variables, introduced in chapter three are developed through the use of indexes. All indexes are scaled in the same direction.

Table 15

**Composite Indexes Constructed for Independent Variables**

<table>
<thead>
<tr>
<th>Variables</th>
<th>Questions Added</th>
<th>Original Scale</th>
<th>Composite Range</th>
<th>(Reliability -Alpha)</th>
</tr>
</thead>
<tbody>
<tr>
<td>SACS I. E.</td>
<td>11B, 11C, 11D, 11G, 11h, 11j, 11k, 11m, 110, 7a, 7b</td>
<td>Likert 0, 1, 2, 3, 4</td>
<td>0 to 44</td>
<td>(.92)</td>
</tr>
<tr>
<td>SACS I. R.</td>
<td>11p, 11r, 11s, 11t, 11u, 11v, 11w, 11x, 11y</td>
<td>Likert 0, 1, 2, 3, 4</td>
<td>0 to 36</td>
<td>(.85)</td>
</tr>
</tbody>
</table>
Table 15 (Continued)

<table>
<thead>
<tr>
<th>Variables</th>
<th>Questions Added</th>
<th>Original Scale</th>
<th>Composite Range (Reliability -Alpha)</th>
</tr>
</thead>
<tbody>
<tr>
<td>TBR External Environment Compliance:</td>
<td>9a,9b,9c,9d, 9e,9f,9g,11f,</td>
<td>Likert 0,1,2,3,4</td>
<td>0 to 32 (.89)</td>
</tr>
<tr>
<td>TBR Planned Change Compliance:</td>
<td>8d,8e,8f,8g 8h,8i,8j,11i</td>
<td>Likert 0,1,2,3,4</td>
<td>0 to 32 (.91)</td>
</tr>
<tr>
<td>TBR Report Card:</td>
<td>4e,7e,11l</td>
<td>Likert 0,1,2,3,4</td>
<td>0 to 12 (.60)</td>
</tr>
</tbody>
</table>

Table 16

Composite Indexes Constructed for Dependent Variables

<table>
<thead>
<tr>
<th>Variables</th>
<th>Questions Added</th>
<th>Original Scale</th>
<th>Composite Range (Reliability -Alpha)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Institutional Performance</td>
<td>6a1,6c1,6d1,6e1, 6f1,6g1,6h1,6i1,6j1,6k1,6l1</td>
<td>Likert 0,1,2,3,4,5</td>
<td>0 to 99 (.86)</td>
</tr>
</tbody>
</table>
Table 16 (Continued)

<table>
<thead>
<tr>
<th>Variables</th>
<th>Questions Added</th>
<th>Original Scale</th>
<th>Composite Range (Reliability -Apha)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Plus respondent's institutional Performance funding score (1997-1998)</td>
<td>Interval</td>
<td>0 to 100</td>
<td></td>
</tr>
<tr>
<td>Total Combined Scale</td>
<td></td>
<td>0 to 199</td>
<td></td>
</tr>
</tbody>
</table>

Use of Assessment Results

<table>
<thead>
<tr>
<th></th>
<th></th>
<th>Likert</th>
<th>0 to 99</th>
</tr>
</thead>
<tbody>
<tr>
<td>6a2, 6c2, 6d2, 6e2, 6f2, 6g2, 6h2, 6i2, 6j2, 6k2, 6l2</td>
<td>0, 1, 2, 3, 4, 5</td>
<td>6, 7, 8, 9,</td>
<td></td>
</tr>
</tbody>
</table>

As a result of the indexing process, frequencies for each of the new variables are displayed in Table 17.

Table 17

Descriptive Statistics for Composite Scores for Independent And Dependent Variables.

<table>
<thead>
<tr>
<th>Variable</th>
<th>n</th>
<th>Mean</th>
<th>Range</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>SACS IE Compliance:</td>
<td>88</td>
<td>33.19</td>
<td>0 to 44.0</td>
<td>7.21</td>
</tr>
</tbody>
</table>

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Table 17 (Continued)

<table>
<thead>
<tr>
<th>Variable</th>
<th>n</th>
<th>Mean</th>
<th>Range</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>SACS IR Compliance</td>
<td>91</td>
<td>25.76</td>
<td>0 to 36.0</td>
<td>6.67</td>
</tr>
<tr>
<td>Environment compliance</td>
<td>89</td>
<td>24.26</td>
<td>0 to 32.0</td>
<td>5.56</td>
</tr>
<tr>
<td>TBR Planned Change Compliance</td>
<td>86</td>
<td>23.72</td>
<td>0 to 32.0</td>
<td>5.41</td>
</tr>
<tr>
<td>Report Card</td>
<td>88</td>
<td>8.98</td>
<td>0 to 12.0</td>
<td>1.93</td>
</tr>
<tr>
<td>Performance Funding Actual</td>
<td>96</td>
<td>94.60</td>
<td>0 to 100.0</td>
<td>5.67</td>
</tr>
<tr>
<td>Institutional Performance (Perceived)</td>
<td>75</td>
<td>77.84</td>
<td>0 to 99.0</td>
<td>11.59</td>
</tr>
<tr>
<td>Use of Assess. for Improvement</td>
<td>67</td>
<td>63.71</td>
<td>0 to 99.0</td>
<td>20.88</td>
</tr>
<tr>
<td>Performance Index (Actual &amp; Perceived)</td>
<td>75</td>
<td>172.5</td>
<td>0 to 199</td>
<td>13.42</td>
</tr>
</tbody>
</table>

From the perspective of this study, the previously introduced overview of the data enables the establishment of a broader context for addressing the responses to the initial study research questions. As such, the study
questions will be briefly reconsidered. This discussion will help link the previous discussion of the broad data overview and the development of measurement indexes to the statistical hypothesis tests addressed within the remainder of this chapter.

Research Question 1

The first research question is stated as follows: Is there an association between institutional performance as perceived by community college leaders and actual institutional performance as measured by institutional performance funding scores of Tennessee Community Colleges?

This question required the development of measures of "perceived" institutional effectiveness as well as the measurement of actual institutional effectiveness using the institutional performance funding score. The survey questions and the associated indexes used to measure the perceived performance variable have previously been introduced in Tables 15 and 16. Based upon these perceived and actual performance variables, the testing of hypothesis one addresses this research question.
Research Question 2

The second research question is stated as follows: To what degree have Tennessee community colleges complied with select SACS and Tennessee Board of Regents planning and institutional effectiveness mandates, as perceived by community college leaders?

Many of the tables previously introduced, especially Table 11 and Table 17, have yielded information, in the form of means, ranges, and standard deviations, that are relevant to this research question. Specifically, these results are also reflected as integral components of the indexed variables used in support of all the study hypotheses as tested in the following section.

Research Question 3

The third research question is stated as follows: Is there an association between perceived levels of compliance with select external SACS accreditation and Tennessee Board of Regents planning mandates and (1) institutional performance as measured by common assessments of institutional effectiveness; and (2) the use of assessment results for institutional improvement?

This question is directly addressed through the testing
of hypotheses numbers 2 through 12. The variables, indexes, and measurements previously addressed in this chapter provide a necessary foundation in support of the testing of these hypotheses.

Research Question 4

The fourth research question is stated as follows: Is there a difference between academic and administrative leaders on their perceived levels of: (1) compliance with external mandates; (2) institutional performance on common assessment measures of effectiveness; and (3) on the use of assessment results for institutional effectiveness?

This question is addressed through hypothesis 12 which statistically tests for differences in perception about these variables among leaders based upon their functional job responsibilities.

Research Question 5

The fifth research question is stated as follows: How accurate a prediction can be made with regard to overall institutional performance given knowledge of perceived compliance with select institutional research, planning and effectiveness mandates?
This research question is addressed through hypothesis 13 which uses statistical techniques for delineating multiple regression based relationships between independent and dependent study variables.

Hypothesis Testing

The following sections identify the results of the formal testing of the statistical hypotheses. Hypotheses 1 through 11 are addressed using the ordinal measure of association known as Spearman’s Rho. Hypothesis 12 is addressed using the Kruskal-Wallis test for assessing differences on ordinal rankings. Finally, hypothesis 13 is addressed using multiple regression techniques. However, for hypothesis 13, an argument for the applicability of this test must also be introduced because this test is generally reserved for interval data.

Hypothesis 1: Actual Versus Perceived Performance

Hypothesis 1 addresses the overall relationship between actual institutional performance, measured by the performance funding program, and perceived performance according to community leaders. Hypotheses 1 is stated as follows: There is no association between "perceived
institutional performance” and “actual performance as measured by the institutional performance funding score.”

This hypothesis was tested through correlation analysis using the Spearman’s Rho statistic as appropriate for ordinal level data. The Pearson Correlation Coefficient is also reported. There was a positive, yet extremely weak and statistically non-significant association (Rho = .036), between the variables of “perceived institutional performance” and “actual institutional performance measured by the institutional performance funding score (Table 18).” Based on these results, the null hypothesis was retained. Therefore, it is appropriate to conclude there is no relationship between the variables.

Table 18

<table>
<thead>
<tr>
<th>n</th>
<th>Statistic</th>
<th>Value</th>
<th>Sig</th>
</tr>
</thead>
<tbody>
<tr>
<td>75</td>
<td>Rho</td>
<td>.036</td>
<td>.761</td>
</tr>
<tr>
<td>75</td>
<td>r</td>
<td>.171</td>
<td>.141</td>
</tr>
</tbody>
</table>
Hypotheses 2 and 3 - SACS Effectiveness Compliance

Hypotheses 2 and 3 are essentially a related pair of hypotheses using the independent variable of "compliance with SACS institutional effectiveness criteria." However, hypothesis 2 uses "institutional performance" as the dependent variable, while hypothesis 3 uses "use of assessment for improvement" as the dependent variable. Hypothesis 2 is stated as follows: There is no relationship between perceived "compliance with SACS institutional effectiveness mandates" and "institutional performance" (actual and perceived) on standard measures of effectiveness.

This hypothesis was tested through correlation analysis using the Spearman's Rho statistic as appropriate for ordinal level data. The Pearson Correlation Coefficient is also reported in support of a subsequent analysis. There was a positive, moderate, and statistically significant association (Rho = .574) between the variables of perceived "compliance with SACS institutional effectiveness mandates" and institutional performance (Table 19). Based upon these statistical results, the null hypothesis was rejected, thus enabling the conclusion that there is a relationship between the variables.
Table 19

**Relationship Between Perceived Compliance with SACS Effectiveness Criteria and Institutional Performance**

<table>
<thead>
<tr>
<th>n</th>
<th>Statistic</th>
<th>Value</th>
<th>Sig</th>
</tr>
</thead>
<tbody>
<tr>
<td>69</td>
<td>Rho</td>
<td>.574</td>
<td>.000*</td>
</tr>
<tr>
<td>69</td>
<td>r</td>
<td>.493</td>
<td>.000*</td>
</tr>
</tbody>
</table>

* p< .05

Hypothesis 3 is stated as follows: There is no relationship between perceived "compliance with SACS institutional effectiveness mandates" and "use of institutional performance results" for institutional improvement.

This hypothesis also was tested through correlation analysis using the Spearman's Rho statistic as appropriate for ordinal level data. The Pearson Correlation Coefficient is also reported in support of a subsequent analysis. There was a statistically significant, positive, and moderate association (Rho = .664) between the variables of perceived "compliance with institutional effectiveness mandates" and "institutional improvement" (Table 20). Based upon these
statistical results, the null hypothesis was rejected. Therefore, it is appropriate to conclude that there is a relationship between the variables.

Table 20

Relationship Between Perceived Compliance with SACS Effectiveness Criteria and Use of Assessment Results for Institutional Improvement.

<table>
<thead>
<tr>
<th>n</th>
<th>Statistic</th>
<th>Value</th>
<th>Sig</th>
</tr>
</thead>
<tbody>
<tr>
<td>63</td>
<td>Rho</td>
<td>.664</td>
<td>.000*</td>
</tr>
<tr>
<td>63</td>
<td>r</td>
<td>.636</td>
<td>.000*</td>
</tr>
</tbody>
</table>

* p< .05

Hypotheses 4 and 5 - SACS Research Compliance

Hypothesis 4 and hypothesis 5 are essentially a related pair of hypotheses using the independent variable of "compliance with SACS institutional research criteria." However, hypothesis 4 uses "institutional performance" as the dependent variable, and hypothesis 5 uses "use of assessment for improvement" as the dependent variable.
Hypothesis 4 is stated as follows: There is no relationship between perceived "compliance with SACS institutional research mandates" and "institutional performance" (actual and perceived) on standard measures of effectiveness.

This hypothesis also was tested through correlation analysis using the Spearman's Rho statistic as appropriate for ordinal-level data. The Pearson Correlation Coefficient is also reported in support of a subsequent analysis. The correlation coefficient will be addressed along with a broader discussion of alternate dependent variables later in the chapter.

There was a weak, positive, and statistically significant relationship (Rho = .248) between the variables of perceived "compliance with SACS institutional research mandates" and "institutional performance" (Table 21). Based upon these statistical results, the null hypothesis was rejected.

This table indicates that the weak relationship is statistically significant for the Rho, but it is not statistically significant for the Pearson correlation coefficient. Therefore, it is appropriate to conclude that there is a relationship between the variables.
Table 21

<table>
<thead>
<tr>
<th>n</th>
<th>Statistic</th>
<th>Value</th>
<th>Sig</th>
</tr>
</thead>
<tbody>
<tr>
<td>70</td>
<td>Rho</td>
<td>.248</td>
<td>.038*</td>
</tr>
<tr>
<td>70</td>
<td>r</td>
<td>.217</td>
<td>.071</td>
</tr>
</tbody>
</table>

* p< .05

Hypothesis 5 is stated as follows: There is no relationship between perceived "compliance with SACS institutional research mandates" and "use of institutional performance results" for institutional improvement.

This hypothesis was also addressed through correlation analysis using the Spearman's Rho statistic as appropriate for ordinal-level data. The Pearson Correlation Coefficient is also reported in support of a subsequent analysis. There was a moderate, positive, and statistically significant relationship (Rho = .431) between the variables of perceived "compliance with SACS institutional research mandates" and
"use of assessment results" for institutional improvement (Table 22). Based upon these statistical results, the null hypothesis was rejected. Therefore, it is appropriate to conclude that there is a relationship between the variables.

Table 22

Relationship Between Perceived Compliance with SACS Institutional Research Criteria and Use of Assessment Results for Institutional Improvement.

<table>
<thead>
<tr>
<th>n</th>
<th>Statistic</th>
<th>Value</th>
<th>Sig</th>
</tr>
</thead>
<tbody>
<tr>
<td>64</td>
<td>Rho</td>
<td>.431</td>
<td>.000*</td>
</tr>
<tr>
<td>64</td>
<td>r</td>
<td>.384</td>
<td>.002*</td>
</tr>
</tbody>
</table>

* p< .05

Hypotheses 6 & 7 - TBR External Environment

Hypotheses 6 and 7 are essentially a related pair of hypotheses using the independent variable of compliance with TBR external environment criteria. However, hypothesis 6 uses "institutional performance" as the dependent variable, and hypothesis 7 uses "use of assessment for improvement" as the dependent variable. Hypothesis 6 is stated as follows:
There is no relationship between perceived "compliance with TBR external environment planning focus" and "institutional performance" (actual and perceived) on standard measures of effectiveness.

This hypothesis also was tested through correlation analysis using the Spearman's Rho statistic as appropriate for ordinal level data. The Pearson Correlation Coefficient is also reported as well. There was a weak, positive, and statistically significant relationship (Rho = .302) between the variables of perceived "compliance with the TBR external environment planning focus mandate" and institutional performance (Table 23). Based upon these results, the null hypothesis was rejected. Therefore, it is appropriate to conclude that there is a relationship between the variables.

Table 23
Relationship Between Perceived TBR External Planning Requirements and Institutional Performance.

<table>
<thead>
<tr>
<th>n</th>
<th>Statistic</th>
<th>Value</th>
<th>Sig</th>
</tr>
</thead>
<tbody>
<tr>
<td>70</td>
<td>Rho</td>
<td>.302</td>
<td>.011*</td>
</tr>
<tr>
<td>70</td>
<td>r</td>
<td>.315</td>
<td>.008*</td>
</tr>
</tbody>
</table>

* p < .05

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Hypothesis 7 is stated as follows: There is no relationship between perceived "compliance with TBR external planning requirements" and "use of institutional performance results" for institutional improvement. This hypothesis also was tested with the Spearman's Rho. The Pearson Correlation Coefficient is also reported. There was a weak to moderate, positive, and significant relationship (Rho = .337) between the variables of "perceived compliance with the TBR external environment planning focus mandate" and "use of performance results" (Table 24). Based upon these statistical results, the null hypothesis was rejected. Therefore, it is appropriate to conclude that there is a relationship between the variables.

Table 24

<table>
<thead>
<tr>
<th>n</th>
<th>Statistic</th>
<th>Value</th>
<th>Sig</th>
</tr>
</thead>
<tbody>
<tr>
<td>65</td>
<td>Rho</td>
<td>.337</td>
<td>.006*</td>
</tr>
<tr>
<td>65</td>
<td>r</td>
<td>.396</td>
<td>.001*</td>
</tr>
</tbody>
</table>

* p< .05
Hypotheses 8 & 9 - TBR Planned Change Mandate

Hypotheses 8 and 9 are essentially a related pair of hypotheses using the independent variable of "compliance with TBR planned change criteria." However, hypothesis 8 uses "institutional performance" as the dependent variable, and hypothesis 9 uses "use of assessment for improvement" as the dependent variable. Hypothesis 8 is stated as follows: There is no relationship between perceived "compliance with TBR planned change mandates" and "institutional performance" (actual and perceived) on standard measures of effectiveness.

This hypothesis was tested through correlation analysis using the Spearman's Rho statistic as appropriate for ordinal level data. The Pearson Correlation Coefficient is also reported. There was a weak, positive, but statistically significant (Rho = .274) relationship between the variables of perceived compliance with the TBR planned change planning mandate and institutional performance (Table 25). Based upon these statistical results, the null hypothesis was rejected. Therefore, it is appropriate to conclude that there is a relationship between the variables.
Table 25

Relationship Between Perceived Compliance with TBR Planned Change Requirements and Institutional Performance.

<table>
<thead>
<tr>
<th>n</th>
<th>Statistic</th>
<th>Value</th>
<th>Sig</th>
</tr>
</thead>
<tbody>
<tr>
<td>69</td>
<td>Rho</td>
<td>0.274</td>
<td>0.022*</td>
</tr>
<tr>
<td>69</td>
<td>r</td>
<td>0.127</td>
<td>0.297</td>
</tr>
</tbody>
</table>

*p< .05

Hypothesis 9 is stated as follows: There is no relationship between perceived "compliance with TBR planned change requirements" and "use of institutional performance results" for continuous improvement.

This hypothesis was tested through correlation analysis using the Spearman's Rho statistic as appropriate for ordinal level data. The Pearson Correlation Coefficient is also reported in support of a subsequent analysis. There was a moderate, positive, and statistically significant (Rho = 0.405) relationship between the variables of perceived "compliance with the TBR planned change planning mandate" and the use of institutional assessment for improvement (Table 26). Based upon these statistical results, the null hypothesis was rejected. Therefore, it is appropriate to conclude that there is a relationship between the variables.
Table 26

Relationship Between Perceived Compliance with TBR Planned Change Requirements and Use of Institutional Assessment Results for Institutional Improvement.

<table>
<thead>
<tr>
<th>n</th>
<th>Statistic</th>
<th>value</th>
<th>Sig</th>
</tr>
</thead>
<tbody>
<tr>
<td>62</td>
<td>Rho</td>
<td>.405</td>
<td>.001*</td>
</tr>
<tr>
<td>62</td>
<td>r</td>
<td>.399</td>
<td>.001*</td>
</tr>
</tbody>
</table>

* p < .05

Hypotheses 10 & 11 - Report Card Mandate

Hypotheses 10 and 11 are essentially a related pair of hypotheses using the same independent variable of “compliance with TBR Report Card Mandate.” However, hypothesis 10 uses “institutional performance” as the dependent variable, and hypothesis 11 uses “use of assessment for improvement” as the dependent variable. Hypothesis 10 is stated as follows: There is no relationship between perceived “importance of TBR report card mandate” and “institutional performance” (actual and perceived) on standard measures of effectiveness.

This hypothesis was tested through correlation analysis using the Spearman’s Rho statistic. The Pearson Correlation

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Coefficient is also reported. There was a weak, positive, and statistically significant (Rho = .253) relationship between perceived "importance of the new report card mandate" and "institutional performance" (Table 27). Therefore, the null hypothesis was rejected. It is appropriate to conclude that there is a relationship.

Table 27

Relationship Between Perceived Importance of the New TBR Report Card Mandate and Institutional Performance

<table>
<thead>
<tr>
<th></th>
<th>Statistic</th>
<th>Value</th>
<th>Sig</th>
</tr>
</thead>
<tbody>
<tr>
<td>71</td>
<td>Rho</td>
<td>.253</td>
<td>.033*</td>
</tr>
<tr>
<td>71</td>
<td>r</td>
<td>.149</td>
<td>.214</td>
</tr>
</tbody>
</table>

* p < .05

Hypothesis 11 is stated as follows: There is no relationship between perceived "importance of TBR report card mandate" and "use of institutional performance results" for institutional improvement.

This hypothesis was also addressed through correlation analysis using the Spearman's Rho statistic as appropriate for ordinal level data. The Pearson Correlation Coefficient
is also reported. There was a moderate, positive, and statistically significant (Rho = .440) relationship between the variables of "perceived importance of the new report card mandate" and "use of institutional assessment results" for continuous improvement (Table 28). Based upon these results, the null hypothesis was rejected. Therefore, it is appropriate to conclude that there is a relationship.

Table 28

<table>
<thead>
<tr>
<th>n</th>
<th>Statistic</th>
<th>Value</th>
<th>Sig</th>
</tr>
</thead>
<tbody>
<tr>
<td>64</td>
<td>Rho</td>
<td>.440</td>
<td>.000*</td>
</tr>
<tr>
<td>64</td>
<td>r</td>
<td>.460</td>
<td>.000*</td>
</tr>
</tbody>
</table>

* p = < .05

Alternative Dependent Variables

Two other possible alternatives were available for the measurement of the dependent variable of "performance." These included: (1) the "perceived performance score" by itself; and (2) the "actual performance funding score" by itself. However, neither alternative proved to be
appropriate. Table 29 presents results of correlations between the independent variables and the combined performance index (as actually used in this study) as well as the two potential alternatives. Use of the first alternative (i.e. "perceived performance only") as the dependent variable provided similar results to the composite index used and the exclusive use of this alternative would have led to no material changes in statistical results.

The second alternative (i.e. "actual performance funding score only") also did not provide an acceptable alternative. In general, the performance funding score is not related to the independent variables. This corroborates the finding that "scoring" protocols can lead to performance funding scores that do not necessarily represent actual performance in a given year. However, inclusion of the performance funding score in the composite was deemed acceptable as it essentially had no material impact on the findings (i.e., the results of the hypothesis tests). Overall, as indicated in Table 29, the dependent variable used for this study provided a reasonable alternative given all of the other possible ways the dependent variable could have been measured.
Table 29

Correlation (Rho) Between Independent Variables and Potential Alternative “Performance” Dependent Variables

<table>
<thead>
<tr>
<th>Independent Variables</th>
<th>Perceived Only</th>
<th>Actual Only</th>
<th>Actual and Perceived</th>
</tr>
</thead>
<tbody>
<tr>
<td>X1 SACS Institutional Effectiveness</td>
<td>.553*</td>
<td>.136</td>
<td>.574*</td>
</tr>
<tr>
<td>X2 SACS Institutional Research</td>
<td>.307*</td>
<td>-.407</td>
<td>.248*</td>
</tr>
<tr>
<td>X3 TBR Plan External Environment</td>
<td>.325*</td>
<td>.079</td>
<td>.302*</td>
</tr>
<tr>
<td>X4 TBR Plan: Planned Change</td>
<td>.273*</td>
<td>.234*</td>
<td>.274*</td>
</tr>
<tr>
<td>X5 TBR Report Card Card</td>
<td>.243*</td>
<td>-.068</td>
<td>.253*</td>
</tr>
</tbody>
</table>

*p < .05

Hypothesis 12 - Differences in Leaders Perceptions

Hypothesis 12 addresses the search for the possible difference between academic and administrative focused leaders on the independent and dependent variables. Hypothesis 12 is stated as follows: There is no difference between academic and administrative leaders regarding their perceived compliance with: (1) external mandates and (2) perceived institutional performance (actual and perceived)
on standard measures of effectiveness; and (3) perceived use of assessment results for continuous improvement.

The hypothesis was tested using the Kruskal-Wallis Test for ordinal level rankings. The purpose of the test was to determine differences in the scores of leaders based upon their primary functional responsibilities (i.e. academic, administrative, or joint academic and administrative) on scores for external mandate compliance variables, as well as on the dependent variables of institutional performance and use of assessment results for subsequent improvement. Seven tests were run, one for each of the independent and the dependent variables (Table 30). The test results indicate that there is only a significant difference in the perception scores of leaders in one area: perceptions about the independent variable related to the "perceived importance of the report card" (chi-square = 15.103). Use of the Mann-Whitney test for post hoc analysis indicated that "academic" respondents were ranked significantly (i.e., p < .05) lower with regard to the perceived importance of the report card in comparison to "administrators" or leaders with "joint academic and administrative duties." However, beyond the single exception of the report card, it is appropriate to conclude that there are generally insignificant differences in the perceptions about external
mandates, and about the use of assessment results, based upon the leaders' functional responsibilities.

Table 30

Differences Between Leaders (By Function) Related to Perceived Compliance with External Mandates, Institutional Performance, and Use of Assessment Results.

<table>
<thead>
<tr>
<th>Variables</th>
<th>Groups</th>
<th>n</th>
<th>Mean Rank</th>
<th>Chi-Square</th>
<th>DF</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>INDEPENDENT</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SACS Inst.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Effective. Acad.</td>
<td>32</td>
<td>36.08</td>
<td>3.879</td>
<td>2</td>
<td>.144</td>
<td></td>
</tr>
<tr>
<td>Admin.</td>
<td>30</td>
<td>44.92</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mixed</td>
<td>22</td>
<td>48.55</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Research</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Acad.</td>
<td>32</td>
<td>41.25</td>
<td>1.464</td>
<td>2</td>
<td>.481</td>
<td></td>
</tr>
<tr>
<td>Admin.</td>
<td>30</td>
<td>48.48</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mixed</td>
<td>25</td>
<td>42.14</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>TBR Extrn.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Acad.</td>
<td>31</td>
<td>41.26</td>
<td>.287</td>
<td>2</td>
<td>.866</td>
<td></td>
</tr>
<tr>
<td>Environ. Admin.</td>
<td>29</td>
<td>43.36</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mixed</td>
<td>25</td>
<td>44.74</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>TBR Planned change</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Acad.</td>
<td>30</td>
<td>36.42</td>
<td>2.440</td>
<td>2</td>
<td>.295</td>
<td></td>
</tr>
<tr>
<td>Admin.</td>
<td>29</td>
<td>45.97</td>
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<tr>
<td>Mixed</td>
<td>23</td>
<td>42.50</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>TBR Report</td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Acad.</td>
<td>32</td>
<td>30.02</td>
<td>15.103</td>
<td>2</td>
<td>.001*</td>
<td></td>
</tr>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Admin.</td>
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<td>47.12</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Mixed</td>
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<td>54.36</td>
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</tbody>
</table>

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Table 30 (Continued)

<table>
<thead>
<tr>
<th>Variables</th>
<th>Groups</th>
<th>n</th>
<th>Mean</th>
<th>Chi-Square</th>
<th>DF</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>Mean</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>DEPENDENT</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Perform.</td>
<td>Acad.</td>
<td>27</td>
<td>33.41</td>
<td>3.406</td>
<td>2</td>
<td>.182</td>
</tr>
<tr>
<td>Admin.</td>
<td>26</td>
<td></td>
<td>34.17</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mixed</td>
<td>19</td>
<td></td>
<td>44.08</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Use of</td>
<td>Acad.</td>
<td>24</td>
<td>28.15</td>
<td>5.218</td>
<td>2</td>
<td>.074</td>
</tr>
<tr>
<td>Assmmts.</td>
<td>Admin.</td>
<td>22</td>
<td>32.30</td>
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<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Mixed</td>
<td>20</td>
<td>43.25</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* p. = < .05

Hypothesis No. 13 - Combined Impact of Mandates

Hypothesis 13 focuses on the combined impact of all mandates on the "institutional performance" dependent variable as well as the "use of assessment" dependent variable. Hypothesis 13 is stated as follows: There is no joint relationship between the combined impact of independent "mandate" variables and (1) institutional performance; and (2) use of institutional performance results for continuous improvement.

This hypothesis has been tested using the multiple regression statistical procedure. Two multiple regression analyses were run, one for each dependent variable. The
purpose of this statistical procedure is to determine the combined impact of all independent variables on a single dependent variable, as well as to allow for the identification of the unique contribution independent variable makes by statistically controlling the effect of all other independent variables. Multiple regression analysis is designed for interval data, but is often used for ordinal variables that have been constructed in the form of index scores (Rogers & Genetemann, 1989; Smart & St. John, 1996). Further, hypotheses 1 though 11 were analyzed using the ordinal measure of Rho, as well as the Pearson correlation Coefficient (r). In 8 of the 11 instances, the hypothesis tests would have reached the same conclusions, regarding whether the decision to reject the hypothesis, if the interval-level measure of Pearson's r had been used. While this is not conclusive evidence, a case can be made that the use of interval-level statistics is not without precedent and does not always lead to different summary conclusions.

Therefore, consistent with such literature applications, as well as fully acknowledging the technical violation of assumptions, Tables 31 and 32 present the results of multiple regression analyses. In Table 31, a multiple regression of all the independent variables and the
dependent variable of institutional performance indicates that a limited amount of the variation in "performance" can be explained by joint or concurrent knowledge of the independent variables. The multiple R-squared value of .403 (adjusted R² = .351) identifies a moderate and statistically significant relationship. The independent variables of "SACS institutional effectiveness compliance", "planned change compliance", and "external environment mandate compliance" have the largest impact on performance. Interestingly, the relationship between planned change and performance is negative, such that a decrease in planned change compliance is associated with an increase in performance. This relationship was not anticipated and no apparent reason for this anomaly is revealed by the findings.

Table 31

Multiple Regression of All Independent Variables on Institutional Performance

<table>
<thead>
<tr>
<th>Variable</th>
<th>B</th>
<th>SEB</th>
<th>Beta</th>
<th>t</th>
<th>Sig t</th>
</tr>
</thead>
<tbody>
<tr>
<td>SACS Instit.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Effect.</td>
<td>1.372</td>
<td>.334</td>
<td>.652</td>
<td>4.103</td>
<td>.000*</td>
</tr>
<tr>
<td>SACS Instit.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Research</td>
<td>.142</td>
<td>.301</td>
<td>.066</td>
<td>.471</td>
<td>.639</td>
</tr>
</tbody>
</table>
Table 31 (Continued)

<table>
<thead>
<tr>
<th>Variable</th>
<th>B</th>
<th>SEB</th>
<th>Beta</th>
<th>t</th>
<th>Sig t</th>
</tr>
</thead>
<tbody>
<tr>
<td>TBR Extern.</td>
<td>.129</td>
<td>.427</td>
<td>.391</td>
<td>2.644</td>
<td>.011*</td>
</tr>
<tr>
<td>Environment</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>TBR Planned Change</td>
<td>1.652</td>
<td>.454</td>
<td>-.629</td>
<td>3.638</td>
<td>.001*</td>
</tr>
<tr>
<td>TBR Report Card</td>
<td>7.082</td>
<td>.853</td>
<td>.001</td>
<td>.008</td>
<td>.997</td>
</tr>
<tr>
<td>Constant</td>
<td>32.550</td>
<td>8.851</td>
<td></td>
<td>14.976</td>
<td>.000</td>
</tr>
</tbody>
</table>

SUMMARY STATISTICS:

Multiple R = .635
R2 = .403
Adj. R2 = .351
Std. Error = 11.1084
N= 62

Analysis of Variance

<table>
<thead>
<tr>
<th>DF</th>
<th>Sum of Squares</th>
<th>Mean Square</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regression</td>
<td>5</td>
<td>4750.394</td>
</tr>
<tr>
<td>Residual</td>
<td>57</td>
<td>7033.543</td>
</tr>
</tbody>
</table>
F = 7.699
Significance F = .000*

* P < .05

With regard to Table 32, a moderate portion of the variance in the dependent variable of “use of assessment for improvement” can be explained by the values of the independent variables. An adjusted R-square of .351 identifies a weak to moderate relationship that is statistically significant. As expected, the single largest, and only significant, predictor of use of assessments for
improvement is compliance with SACS institutional effectiveness mandates, mandates that encourage "closing the assessment loop" by using results for continuous improvement. The standardized regression coefficient of no other independent variable is statistically significant at the .05 alpha level.

Based upon the multiple regression analysis results, there is a statistically significant but relatively weak joint relationship between all independent variables and each dependent variable. Thus, there is evidence, despite its inherent limitations of the methodology, to support the tentative rejecting of the hypothesis and the conclusion that there is an association between all of the independent variables as a group, and the dependent variables of: (1) institutional "performance"; and (2) the "use of assessment for institutional improvement."

Table 32
Multiple Regression of All Independent Variables on Use of Assessment Results for Improvement

<table>
<thead>
<tr>
<th>Variable</th>
<th>B</th>
<th>SER</th>
<th>Beta</th>
<th>t</th>
<th>Sig t</th>
</tr>
</thead>
<tbody>
<tr>
<td>SACS Instit. Effect.</td>
<td>1.522</td>
<td>.477</td>
<td>.515</td>
<td>3.319</td>
<td>.002*</td>
</tr>
</tbody>
</table>

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Table 32 (Continued)

<table>
<thead>
<tr>
<th>Variable</th>
<th>B</th>
<th>SEB</th>
<th>Beta</th>
<th>t</th>
<th>Sig t</th>
</tr>
</thead>
<tbody>
<tr>
<td>SACS Instit.</td>
<td>7.106</td>
<td>.453</td>
<td>.032</td>
<td>.222</td>
<td>.826</td>
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<tr>
<td>Research</td>
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<td></td>
</tr>
<tr>
<td>TBR Extern.</td>
<td>.623</td>
<td>.619</td>
<td>.153</td>
<td>1.009</td>
<td>.319</td>
</tr>
<tr>
<td>Environment</td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>TBR Planned</td>
<td>-.727</td>
<td>.643</td>
<td>-.193</td>
<td>1.131</td>
<td>.263</td>
</tr>
<tr>
<td>change</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>TBR Report card</td>
<td>2.116</td>
<td>1.282</td>
<td>.213</td>
<td>1.646</td>
<td>.106</td>
</tr>
</tbody>
</table>

SUMMARY STATISTICS:

| Constant          | -6.290 | 13.128 | .479  | .634  |
|                   |        |        |       |       |

Multiple R = .639

R2 = .408

Adj. R2 = .351

Std. Error = 15.4753

N = 57

Analysis of Variance

<table>
<thead>
<tr>
<th>DF</th>
<th>Sum of Squares</th>
<th>Mean Square</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Regression</td>
<td>9039.999</td>
</tr>
<tr>
<td>5</td>
<td>Residual</td>
<td>12123.518</td>
</tr>
<tr>
<td>52</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

F = 7.164

Significance F = .000*

* P < .05

Summary

This chapter presents and discusses the descriptive results of this research undertaking including a statistical analysis of the survey data used in support of this study. Survey response rates for each institution were introduced, along with a brief overview of respondent characteristics.
Survey responses were reviewed in detail from the perspective of frequencies and summary statistics of key variables directly related to the focuses of this study. Methodological issues, including the measurement of variables through the creation of composite question indexes, were also introduced and described.

Formal statistical analyses were conducted to test each hypothesis, and a major portion of this chapter presents the results of these tests. Additionally, specific methodological concerns, such as the use of statistical tests ordinarily reserved for higher levels of measurement, were also discussed and supporting literature was identified. In total, the statistical foundation of study findings has been developed in this chapter.
CHAPTER 5
SUMMARY, FINDINGS, CONCLUSIONS, AND RECOMMENDATIONS

This research study has identified a variety of themes and issues related to selected external planning and evaluation mandates primarily from the perspective of Tennessee community college leaders. As a primary focus, the study ascertained leader perceptions regarding the impact of selected regional accreditation and state planning and effectiveness mandates on community college practices and performance in Tennessee two-year higher education institutions. Consistent with the themes and particular results addressed in a previous chapter, and the review of the literature also previously introduced, this chapter promotes a broader and more pragmatic study perspective. As such, this chapter offers specific study contexts for the findings along with associated conclusions and recommendations.

Summary of Findings and Conclusions

To consider the findings of the study appropriately, it is necessary to return to the research questions introduced in the first chapter, as well as to return to the major

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literature themes discussed in chapter two. For each research question, associated research findings, results, and related conclusions are introduced. Finally, the chapter completes the study with a series of recommendations for consideration by community college practitioners and researchers.

Research Question One

Is there an association between institutional performance as perceived by community college leaders and actual institutional performance as measured by the institutional performance funding scores of Tennessee Community Colleges?

In response to this research question, performance funding literature reviews previously introduced suggested that the Tennessee performance funding program may not be viewed by institutional leaders as the most effective measure of institutional effectiveness. In fact, this study confirms the basis of a foundation for such a conclusion. For example, there is no statistical relationship between institutional performance, as measured by the performance funding program, and the perceived performance by community college leaders, when the same assessment areas are
examined. Moreover, when community college leaders report their performance in the form of perceived performance on standard assessments, (as opposed to their actual institutional performance funding scores), they rate themselves as not performing nearly as well as their institutional performance funding scores would indicate. This finding supports the conclusion that the validity of the performance funding scores, as measures of institutional effectiveness, is subject to question and legitimate debate.

Similar findings relate to the evaluation of each individual performance funding standard as a measure of institutional effectiveness. More problematic, when leaders consider the assessment in relationship with each individual standard, several standards are particularly identified as weak assessment measures. Of the most serious concern is the inclusion of one of the most critical effectiveness measures of the community college academic program (i.e. general education) in the group of measures that are not perceived as particularly effective.

The difference between earned institutional performance funding scores and perceived actual performance on core assessments can be explained in part by the special "scoring protocols" within the performance funding program. The use
of cumulative database scoring methodologies, the institutional prerogative to select programs to evaluate in any given year, and other legitimate assessment protocols allow institutions to help "manage" their performance funding results. As such, the result of these protocols can lead to somewhat inflated scores. This phenomenon should be viewed as a critical issue. If the performance funding score is somewhat inflated, but is used as a key and public summary assessment of an institution, then an inaccurate and unrealistic perception of performance is being promoted among institutions, college employees and students, the governing board, the public, and the various other constituencies.

To the extent that the validity of the performance funding score is legitimately questioned, this study raises issues of public policy concern. There does not appear to be any evidence that the "score inflation" is purposefully misleading; the performance funding score is based upon publicly shared criteria and scoring protocols. Given the funding incentive of the score, it certainly is understandable for colleges to maximize their respective scores. However, the findings of this study suggest that the performance funding score is not perceived by community
college leaders as providing a solid (i.e., valid) summary evaluation of institutional performance. Similarly, this finding may help explain why the TBR chancellor perceived the need to develop and promulgate institutional "report cards."

**Research Question Two**

To what degree have Tennessee community colleges complied with select SACS and Tennessee Board of Regents planning and institutional effectiveness mandates, as perceived by community college leaders?

In response to this question, the findings of this study are inconsistent with the literature. The literature review found that much of the writing on assessment is focused on addressing the issue of "how" institutions are going about the adoption of institutional effectiveness programs and assessments. The literature is not considering the conditions underlying successful institutional performance. In fact, the research focus on the conditions underlying successful performance is generally viewed in the literature as too premature, given the relatively recent attempts at adoption of effectiveness programs in community colleges.
In contrast, given the long performance funding history of Tennessee community colleges, higher levels of institutional effectiveness experience were expected in Tennessee. Accordingly, evidence of this higher level of sophistication in institutional effectiveness has been found. This study, for the most part, also has found that Tennessee community college leaders indicate that they are successfully complying with SACS institutional effectiveness mandates and, to a somewhat lesser extent, SACS institutional research mandates as well.

From the perspective of implementation of TBR planning mandates, especially those considered in this study related to the external environment and planned change, this study found a mixed, and modest at best, rate of success. Tennessee community college leaders perceive that they are aware of their external environment and report a moderate level of success with that mandate. Unfortunately, the planned-change mandate is found in this study to have achieved minimal success at best.

This research may point out another issue for further investigation. The SACS criteria may represent a different type of mandate in comparison to the TBR planning mandates. The inability to address SACS mandates puts an institution
in jeopardy of losing its accreditation. The consequences of non-compliance are strong and not in the best interest of the institution. Such failure is public, requires governing board notification, and the submission of a long and detailed response as to how the problem will be solved.

In this study, the stronger mandates (i.e. SACS) were identified as achieving greater compliance. In contrast, the weaker mandates (i.e. TBR planning mandates) tended to have lesser perceived impacts on institutions. These mandates are weaker in the sense that failure to address them would not lead to the closing of an institution or a very public and potentially humiliating experience. Different types of mandates may well be viewed differently by community college leaders based on the perceived consequences. Finally, the report card is a unique type of mandate in comparison to the other mandates addressed in the previous chapters. However, it is worth noting that its very public focus could in fact enable the report card to have a major impact on institutions in the long run, due to its availability to broad constituencies and the resultant public relations influences.
Research Question Three

Is there an association between perceived levels of compliance with select external SACS accreditation and Tennessee Board of Regents planning mandates and institutional performance as measured by common assessments of institutional effectiveness?

*SACS Institutional Effectiveness.* With respect to all mandates considered in this study, perceived compliance with SACS institutional effectiveness requirements has been found to have the most direct impact on the effectiveness of the institution. Moreover, perceived compliance with this mandate also has been found to be positively related to the institutional use of assessment results for continuous improvement. Overall, compliance with SACS institutional effectiveness criteria has the strongest correlation with institutional performance and use of assessment in comparison to any of the other mandate variables.

In retrospect, the relationship of the SACS institutional effectiveness compliance variable with the use of assessment results for continuous improvement is readily understandable. SACS institutional effectiveness criteria strongly encourage the use of assessment for improvement.
Therefore, it would be appropriate to expect that, if leaders perceived their institution was complying with SACS effectiveness criteria, then they would also perceive a stronger level of the "use" of assessment results for improvement. Overall, if community college leaders had to select one predictor of successful performance, and the desired practice of the use of assessment for continuous improvement, it would be compliance with SACS institutional effectiveness criteria.

**SACS Institutional Research Criteria.** Compliance with SACS institutional research criteria is also positively associated with both institutional performance and institutional use of assessment results for improvement. However, the degree of this relationship is not generally as strong as the relationship between compliance with SACS institutional effectiveness mandates and the dependent variables. In part, this may be a result of the perceived lack of resources for institutional research as noted in chapter four. One of the weakest scores on the survey itself was the perception related to the lack of resources available for the institutional research function. This finding, while consistent with the recent literature,
indicates a potentially serious threat to the overall enhancement of the performance of community colleges. A case could be made that the quality of any effort to enhance the effectiveness of an institution rests upon the quality and availability of research on key institutional issues and concerns. However, the research that is being done appears to be evaluated favorably; unfortunately, while the need for institutional research expands, the lack of resources could provide even greater constraints of this critically important "effectiveness" function.

**TBR External Environment.** Overall, Tennessee community college leaders perceive themselves as being aware of environmental variables, with the only noted exceptions being a lack of awareness of "external competitors" and "social changes." This finding is in contrast with the literature which notes that few operational planning systems effectively address a wide variety of external environmental issues. Compliance with TBR external environment mandates was also positively associated with institutional performance and the use of assessment results. However, the association tends to be weak in both instances. Thus, this mandate appears to be related less to institutional
performance and to the use of assessment results, than to perceived compliance with the SACS mandate on institutional effectiveness.

In a sense, compliance with this mandate would help make a college more aware of external demands and therefore tend to encourage greater responsiveness to external mandates. However, being responsive to external trends may not translate directly into effectiveness, as measured by performance on core measures, especially core measures that do not directly address community perceptions of the institution.

**TBR Planned Change.** TBR planned-change strategic planning requirements probably account for the most problematic finding of this study. Planned change, as defined by this study, focused on areas of Tennessee higher education that have been key planning priorities of the TBR system for a number of years. However, Tennessee community college leaders do not perceive that these TBR priorities are expected to be addressed as if they were institutional mandates. It is not necessarily that leaders perceive these TBR priorities as unimportant, but rather that they do not perceive them as high institutional priorities. This study
did not find a strong association between achieving planned goals and performance, but part of that may be explained by the lack of institutional progress on the planned change goals. There is also an association, a relatively moderate association, between planned-change compliance and use of assessment, an association that has an apparent logical basis.

TBR Report Card. The perceived importance of the report card does not seem to be strongly related to institutional performance; however, there is a moderate association between the perceived importance of the report card and use of assessment results for improvement. The report card is a new phenomenon; detailed perceptions of its impact will require some additional time and specialized study.

Research Question Four

Is there a difference between academic and administrative leaders on perceived levels of: (1) compliance with external mandates; (2) institutional performance on common assessment measures of effectiveness; and (3) on the use of assessment results for institutional effectiveness?
In response to this research question, the literature provides very little guidance on this issue. There is some research that would suggest that institutional presidents are more likely to embrace SACS institutional effectiveness mandates, but this element of the literature is neither comprehensive nor particularly strong from a methodological perspective. Overall, there appear to be very similar opinions on these mandates from the perspectives of academic leaders, administrative leaders, and/or leaders with joint academic and administrative duties. These similarities tend to be reflected as similar perceptions of mandate compliance, institutional practice, institutional performance, and the use of assessment results, regardless of the respondent's functional responsibility. In fact, in only one of the seven independent and dependent variables did these groups manifest significant differences of perception (i.e., perceived report card importance). This finding is somewhat surprising, in that performance funding is primarily focused on student assessment, as well as academic program assessment. It could be expected that academic administrators might have a different view of an assessment program that primarily evaluates their function. However, the economic impact of performance funding may be
so strong that administrative leaders, and joint academic and administrative leaders as well feel a sense of joint ownership on performance funding and thus are highly aware of the assessments, and the associated mandates. The results of this study would in fact support such a conclusion.

**Research Question Five**

How accurate a prediction can be made with regard to overall institutional performance given knowledge of leaders’ perceptions of levels of compliance with select institutional planning and effectiveness mandates?

In response to this research question, predicting performance, or the use of assessment, based upon compliance with mandates, is not yet possible to any degree of certainty or accuracy. For example, as previously mentioned, compliance with SACS institutional effectiveness criteria is the single most effective predictor of performance. Compliance with other mandates is either a weak predictor of effectiveness under the best circumstances, or not a predictor at all. As indicated in the previous chapter, the statistical “joining” of all the mandate variables, through multiple regression analysis, yields an overall weak predictor of institutional performance and a weak predictor
of the use of assessment for improvement. As such, the analysis provides very little statistically sound predictive capability. Part of the problem lies in the similar, if not overlapping, constructs that these variables represent. Multi-collinearity was encountered; there were varying levels of relationships between the various independent variables. Ideally, especially when using multiple regression techniques, it is most desirable for independent variables to be as weakly related as possible.

Recommendations Related to Institutional Practice

From the perspective of institutional practitioners, several recommendations are appropriate:

1. If compliance with SACS institutional effectiveness mandates is associated with institutional performance, and correspondingly with the use of assessment results, then it appears to be prudent to make use of this connection to support institutional development and improvement. One obvious methodology would be to tie compliance with this mandate to performance funding and/or to the new report card. There is no reason why a more formal and efficient measure of compliance with SACS institutional effectiveness mandates cannot be created and added to the performance
funding program. In fact, adding this dimension would tend to enhance the validity of the performance funding instrument.

2. TBR community colleges should expand institutional research functions and capabilities. Given the critical need for high quality and responsive information about institutional needs and priorities, institutional research must remain a major institutional imperative. The overall quality and efficacy of management decisions rest, in a large measure, on the availability and quality of needed information. However, there is serious concern about available resources for institutional research. This concern is well documented in the literature as a typical concern for all institutions. Addressing this concern would give Tennessee community colleges a strategic advantage in an area of institutional effectiveness that remains problematic for the competition.

3. It is obvious that significant effort must be given to the lack of progress on planned-change mandates. It might be wise to consider re-structuring the TBR planning process, with more of an emphasis on promoting institutional efforts to focus and report on success toward achieving planned change priorities. In addition, these priorities could be
required to be addressed through the performance funding program. Currently, institutions have maximum flexibility in choosing the areas they want to be assessed under the state planning priorities standard. Quite possibly some of this flexibility could be modified for the assessment of progress on system-wide planned change mandates.

4. State-level policy makers should consider more training for community college leaders in the areas of effectiveness and the use of assessment for improved performance. The literature related to effectiveness, performance, and related areas is vast, yet neither well organized nor systematic. As this study indicates, however, the body of verifiable and useful institutional effectiveness knowledge available for practitioners to draw upon related to these areas is curiously very limited. It is not prudent to assume that all leaders are proficient in these areas. Specialized instruction and training could be of assistance. Again, the strategic advantage to the Tennessee community colleges for this type of training could certainly justify the associated cost and effort.

5. From the perspective of community colleges, performance assessments that do not reflect how external publics, such as local businesses and industries, evaluate
the college ignore a critical area of community college strength. The performance funding program could be expanded with such a measure, a new measure of constituent perceptions that could be designed to be reliable, valid, and efficiently collected.

**Recommendations Related to Future Research**

From the perspective of future research, several recommendations are appropriate:

1. This study could be a starting point for a more detailed examination of the effectiveness of Tennessee community college institutions. Specific consideration should be given to case study analysis of "high-performing" Tennessee community colleges with regard to the identification of successful institutional effectiveness practices. Such a study could help validate and add depth to the findings offered in this chapter.

2. The mandate and performance variables used in this study need to be further refined. Significant effort needs to be given in relationship to measurement issues. The measurements offered in this study are recognized as inherently limited and crude as a first effort. More refined measures, at the highest possible level of validity and
reliability, are needed in support of future studies. Higher education performance and assessment mandates, according to the current literature, are here to stay; in fact, the likelihood that mandates will increase and become even more prescriptive is a safe assumption. The concept of "self-regulation" is frankly more important for historical significance, rather than for practical relevance. Therefore, it is critical that higher education researchers help guide and inform the debate over mandates, and mandate policies. Tightly focused studies, concepts, methodologies, and theories are needed. Unfortunately, this difficult undertaking requires sophisticated research measures and methodologies. Without these measures, research on these topics can not proceed much further.

3. THEC and TBR would benefit by a detailed study of system institutions from the perspective of planning and effectiveness. Such a study would best be accomplished by an outside party far removed from the day-to-day operations of Tennessee state government and higher education. State policy makers cannot rely solely on SACS accreditation to promote institutional effectiveness when the SACS compliance team site visits are spaced at 10-year intervals. One approach would be to convene a SACS-type review team to
visit all community colleges in the state at the same time, using the SACS institutional effectiveness criteria as the evaluation standards.

4. This study needs to be replicated in Tennessee, as well as other states, if possible. Tennessee has a unique history and assessment culture, as a result of the long-term performance funding program, and much of this study may be influenced by cultural variables that are beyond the scope of the current investigation. Additionally, there is at least one other opportunity to apply a similar study to Tennessee institutions, the public universities. The Tennessee public universities can provide a laboratory to further refine and test the impact of these mandates, in the unique higher education culture and environment of Tennessee. Such an effort could enable a potential triangulation of the results of this study, which is admittedly an early exploration of the influence of external mandates on associated institutional practice and performance as perceived by Tennessee community college leaders.


Conference on Higher Education, University of Lancaster).


Council on Education.


Criteria for accreditation. Atlanta, GA: Commission on Colleges.


Tennessee Higher Education Commission.


APPENDIX A

SURVEY EXPERT PANEL VALIDATION INSTRUMENT

198
Instructions to Expert Panel Members

Dear Expert Panel Member:

You are being requested to participate in a validation of a survey instrument specifically designed to assess the impact of selected SACS and TBR external mandates on community college practices and institutional effectiveness in Tennessee. Specifically, you are being asked to rank each question on a scale of 1 to 4 to gauge the appropriateness of the question. Therefore, for each question you are requested to enter one of the following codes depending on the appropriateness of the question:

1 = not appropriate  
2 = somewhat appropriate  
3 = appropriate  
4 = very appropriate  

A key element of the appropriateness of each question's relates to your evaluation of each question’s validity. Specifically, two types of validity are being considered:

Construct Validity - defined as the condition when a measure truly measures the "construct" under investigation.

Content Validity - defined as the condition when a measure truly covers the “content” of the material under investigation.

To support your efforts at assessing the appropriateness of these questions, a portfolio of selected literature and related materials has been developed and is attached for your review. Please note, the survey has been redesigned for your validation rankings. In addition, the survey form provides for recommending changes in the wording of specific questions, as well as for the recommending of question additions and deletions. Feel free to make suggested changes in “red pen” on the survey document; in every sense of the word, the survey form is a work in progress and, as such, you should feel free to mark the survey with any suggestions for improvement. Also, please note that an extra page has been added for additional comments.

Your participation in this validation process is greatly appreciated. Please refer any questions to Gary Skolits at (423) 585-6897. Completed evaluation forms are to be returned to me as we discussed. You may keep or return the associated portfolio materials at your discretion.

Sincerely,

Gary Skolits
Validation Survey of Tennessee Community College Leaders

Institutional Effectiveness Mandates, Practices, and Performance

**ORIGINAL INSTRUCTIONS:**

This questionnaire seeks your perceptions on planning and institutional effectiveness mandates, practices, and performance as it relates to your college. As a community college leader in Tennessee, your response is very important to this study. Individual responses will be held in strict confidence and only group responses will be reported. If you have any questions, please contact Gary Skolits at (423)585-6897 at any time during the day or evening.

**QUESTIONS 1, 2 AND 3 ARE BACKGROUND QUESTIONS**

1. How many years have you been: ___ with your current institutions? ___ in college administration? 

   **THE ORIGINAL RESPONSE KEY: (IN YEARS)**

   **Q1 - ENTER PANEL MEMBER RANKING (“1” TO “4”)**

2. Please identify your current position by checking the appropriate category below:

   **THE ORIGINAL RESPONSE KEY: President, Vice President, Dean, Director/Administrator, other**

   **Q2 - ENTER PANEL MEMBER RANKING (“1” TO “4”)**

3. Please describe your current job duties by checking the appropriate response below:

   **THE ORIGINAL RESPONSE KEY: primarily academic in focus
   primarily administrative in focus
   both academic and administrative in focus**

   **Q3 - ENTER PANEL MEMBER RANKING (“1” TO “4”)**

**QUESTION 1 THROUGH 3 RATIONALE/LITERATURE BASE:**

The first three questions are designed to determine the respondents experience, current position, and role orientation (i.e. administrative, academic, or both).

**EXPERT PANEL MEMBER COMMENTS(SUGGESTED QUESTION CHANGES):**
4. Please describe your personal knowledge of each of the following by circling the appropriate response below:

**Q4 - ENTER PANEL MEMBER RANKING (“1” TO “4”)**

- A. SACS Manual on Institutional Effectiveness
- B. SACS Criteria Section III: Planning and Evaluation
- C. SACS Criteria Section III: Institutional Research
- D. TBR Planning Process
- E. TBR Report Card
- F. TBR Agenda 2000
- G. Performance funding program
- H. Your institutional planning process
- I. Your institutional plan
- J. THEC Strategic Plan (Uniting Tennesseans)

**QUESTION 4 RATIONALE/LITERATURE BASE:**
This question identifies the range of SACS and TBR planning and institutional effectiveness documents that are addressed as part of this study. See Tabs 1 through 5. The rationale for this question is to establish the level of knowledge key leaders in TN community colleges have of these primary documents.

**EXPERT PANEL MEMBER COMMENTS (SUGGESTED QUESTION CHANGES):**

**QUESTION 5 SEeks TO DETERMINE HOW EFFECTIVE LEADERS FEEL THE TN PERFORMANCE FUNDING**

**PROGRAM IS IN MEASURING THEIR INSTITUTION’S PERFORMANCE**

5. Please indicate how effective overall, in your view, the performance funding program is in assessing the key educational and institutional elements of your college by checking the appropriate category below:

**ORIGINAL RESPONSE KEY:** Very Effective, Effective, Somewhat Effective, Barely Effective, Ineffective

1 2 3 4 5

**Q5 - ENTER PANEL MEMBER RANKING (“1” TO “4”)**

**QUESTION 5 RATIONALE/LITERATURE BASE:**
The rationale for this question is to establish the overall perceived effectiveness of the performance funding as a measure of institutional effectiveness. This questions also provides a test of internal reliability, for question 10, and see Tab 1.

**EXPERT PANEL MEMBER COMMENTS (SUGGESTED QUESTION CHANGES):**

**QUESTION 6 ADDRESSES PERFORMANCE AS MEASURED BY ASSESSMENTS IN TN PERFORMANCE**
6. Due to the performance funding scoring protocols such as multi-year cumulative scoring, selective scheduling of major fields to be assessed in a given year, special cycle exemptions, etc., your performance funding score and actual institution performance could differ considerably. Given this possibility, please rate your institution's most recent performance, *not necessarily your earned performance funding score*, on each of the following assessment measures by circling the most appropriate response below. Additionally, please identify at what level associated results are used to make improvements:

<table>
<thead>
<tr>
<th>ORIGINAL RESPONSE KEY:</th>
<th>Weak</th>
<th>Moderate</th>
<th>Strong</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
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<td>4</td>
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</tbody>
</table>

**Q6 - ENTER PANEL MEMBER RANKING (“1” to “4”)**

<table>
<thead>
<tr>
<th>A. General Education</th>
<th>1. Performance</th>
<th>2. Use of Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>B. General Education Pilot Test (Pilot Test Participants)</td>
<td>1. Performance</td>
<td>2. Use of Results</td>
</tr>
<tr>
<td>C. Program Accreditation</td>
<td>1. Performance</td>
<td>2. Use of Results</td>
</tr>
<tr>
<td>D. Program Peer Review</td>
<td>1. Performance</td>
<td>2. Use of Results</td>
</tr>
<tr>
<td>E. Major Field Testing</td>
<td>1. Performance</td>
<td>2. Use of Results</td>
</tr>
<tr>
<td>F. Student Survey</td>
<td>1. Performance</td>
<td>2. Use of Results</td>
</tr>
<tr>
<td>G. Alumni Survey</td>
<td>1. Performance</td>
<td>2. Use of Results</td>
</tr>
<tr>
<td>H. Retention/persistence</td>
<td>1. Performance</td>
<td>2. Use of Results</td>
</tr>
<tr>
<td>I. Job Placement</td>
<td>1. Performance</td>
<td>2. Use of Results</td>
</tr>
<tr>
<td>J. Institutional Plan Goals</td>
<td>1. Performance</td>
<td>2. Use of Results</td>
</tr>
<tr>
<td>K. State Planning Goals</td>
<td>1. Performance</td>
<td>2. Use of Results</td>
</tr>
<tr>
<td>L. Overall (all standards)</td>
<td>1. Performance</td>
<td>2. Use of Results</td>
</tr>
</tbody>
</table>

**QUESTION 6 RATIONALE/LITERATURE BASE:**

Question 6 addresses the perceived performance, and associated use of assessment results for improvement for assessment measures used for the Tn performance funding program (as opposed to actual PF scores resulting from scoring protocols. See Tab 1).

**EXPERT PANEL MEMBER COMMENTS (SUGGESTED QUESTION CHANGES (use reverse side if necessary):**
QUESTION 7 SEeks to determine the perceived institutional importance placed on major SACS and TBR planning and institutional effectiveness documents.

7. From your perspective, please identify the level of importance that your institution places on the following by circling the most appropriate response below:

<table>
<thead>
<tr>
<th>ORIGINAL RESPONSE KEY:</th>
<th>None</th>
<th>Slight</th>
<th>Some</th>
<th>Moderate</th>
<th>Strong</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
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<td></td>
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</tbody>
</table>

Q7 - ENTER PANEL MEMBER RANKING ("1" TO "4")

A. SACS Manual on Institutional Effectiveness
B. SACS Criteria: Section III on Planning and Evaluation
C. SACS Criteria: Section III on Institutional Research
D. TBR Planning Process
E. TBR Report Card
F. TBR Agenda 2000
G. Performance funding program
H. Your institutional planning process
I. Your institutional plan
J. THEC Strategic Plan (Uniting Tennesseans)

QUESTION 7 RATIONALE/LITERATURE BASE:
This question seeks to determine the perceived importance placed on major SACS and TBR planning and institutional effectiveness documents. Such data provides an indication as to the level of seriousness and potential impact on these documents. See Tabs 1-5.

EXPERT PANEL MEMBER COMMENTS(SUGGESTED QUESTION CHANGES):

QUESTION 8 SEeks to determine how community colleges perceive the expectations of the TBR planning process consistent with TBR/State planning policy.

8. In your view, please indicate how strong TBR planning process expectations are for the following by circling the most appropriate response below:

<table>
<thead>
<tr>
<th>ORIGINAL RESPONSE KEY:</th>
<th>None</th>
<th>Slight</th>
<th>Some</th>
<th>Moderate</th>
<th>Strong</th>
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<td></td>
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</tbody>
</table>

Q8 - ENTER PANEL MEMBER RANKING ("1" TO "4")

A. Compliance with TBR policy
B. Efficient use of resources
C. Focusing institutional efforts
D. Planned change toward state goals
E. To promote equity
F. To promote excellence
G. To promote accessibility
H. To promote accountability

QUESTION 8 RATIONALE/LITERATURE BASE:
This question is designed to assess how community colleges perceive the expectations of the TBR/State planning process consistent with stated policy. See Tab 3.

EXPERT PANEL MEMBER COMMENTS(SUGGESTED QUESTION CHANGES):

QUESTION 9 IDENTIFIES HOW COMMUNITY COLLEGE LEADERS PERCEIVE THE CRITICAL COMPONENTS OF THE EXTERNAL ENVIRONMENT THAT MUST BE ADDRESSED FOR AN
**EFFECTIVE AND MEANINGFUL INSTITUTIONAL PLANNING PROCESS.**

9. Please indicate at what level your institutional planning process promotes institutional consideration of the following by circling the most appropriate response below:

<table>
<thead>
<tr>
<th>ORIGINAL RESPONSE KEY:</th>
<th>None</th>
<th>Slight</th>
<th>Some</th>
<th>Moderate</th>
<th>Strong</th>
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</thead>
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<td>5</td>
</tr>
</tbody>
</table>

**Q9 - ENTER PANEL MEMBER RANKING ("1" TO "4")**

A. Technological Change
B. Service area needs
C. Political influences
D. Social changes
E. Business/industry changes
F. Higher education trends
G. Competition

**QUESTION 9 RATIONALE/LITERATURE BASE:**
Question 9 identifies the variables often mentioned in the planning literature as critical components of the external environment that must be addressed for an effective and meaningful institutional planning process.

**EXPERT PANEL MEMBER COMMENTS(SUGGESTED QUESTION CHANGES):**

**QUESTION 10 SEeks TO DETERMINE HOW ACCURATELY INSTITUTIONAL LEADERS FEEL THE TN PERFORMANCE FUNDING PROGRAM MEASURES THEIR INSTITUTION’S PERFORMANCE**

10. Please identify how strongly you feel your institution’s most recent scores on the following performance funding measures accurately reflect the actual performance of your institution by circling the most appropriate response below:

<table>
<thead>
<tr>
<th>ORIGINAL RESPONSE KEY:</th>
<th>Weak</th>
<th>Moderate</th>
<th>Strong</th>
</tr>
</thead>
<tbody>
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<td>1</td>
<td>2</td>
<td>3</td>
</tr>
</tbody>
</table>

**Q10 - ENTER PANEL MEMBER RANKING ("1" TO "4")**

A. General Education Examination
B. General Education Pilot Test assessments
C. Program Accreditation assessment
D. Program Peer Review assessment
E. Major Field Testing
F. Student Survey
G. Alumni Survey
H. Retention/persistence benchmark assessments
I. Job Placement
J. Institutional Plan Goals
K. State Planning Goals
L. Overall (all standards combined)

**QUESTION 10 RATIONALE/LITERATURE BASE:**
Same as question 6.

**EXPERT PANEL MEMBER COMMENTS(SUGGESTED QUESTION CHANGES):**

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QUESTION II  

THIS QUESTION ADDRESSES A NUMBER OF AREAS OF SACS AND TBR POLICY RELATED TO INSTITUTIONAL EFFECTIVENESS, INSTITUTIONAL RESEARCH, AS WELL AS PLANNING.

I11. Please rank your level of agreement/disagreement with the following statements by checking the appropriate response below:

ORIGINAL RESPONSE KEY:
Strongly Disagree (SD); Disagree (D); Neutral (N); Agree (A); Strongly Agree(SA), or No Opinion (No)

QII - ENTER PANEL MEMBER RANKING (“1” to “4”)

A. The Board of Regents places a major emphasis on strategic planning. ______
B. My institution has a clearly defined mission statement. ______
C. My institution has formulated specific instructional goals consistent with the mission. ______
D. My institution has an established process for measuring progress achieved on each instructional goal. ______
E. My institution has a meaningful strategic planning process. ______
F. At my college we consider the external environment as part of our planning process. ______
G. My institution has identified strategic issues facing the college. ______
H. At my institution strategic goals have been developed to address major strategic concerns throughout the college. ______
I. At my institution the strategic plan is designed to bring about needed change. ______
J. At my institution we regularly assess progress on institutional strategic goals. ______
K. At my institution we tend to use results of major assessments for making improvements. ______
L. The TBR Report Card will promote my college’s effectiveness. ______
M. Compliance with SACS institutional effectiveness criteria will make my college more effective. ______
N. Compliance with TBR planning requirements will make my college more effective. ______
O. My institution has fully implemented SACS institutional effectiveness criteria. ______
P. My institution has fully implemented SACS institutional research. ______
Q. Participation in the performance funding program promotes the effectiveness of my institution. ______
R. My institution regularly evaluates key functions of the college. ______
S. Institutional research is an integral part of my college’s institutional effectiveness program. ______
T. My college’s institutional research function is effective at collecting important institutional data. ______
U. My college’s institutional research function is effective at analyzing important institutional data. ______
V. Our college’s institutional research function is effective at disseminating important institutional research data. ______
W. Institutional research function is evaluated on a periodic basis at my college. ______
X. The institutional research function at my college has sufficient resources. ______
Y. Institutional research at my institution is responsive to major college needs. ______

QUESTION I RATIONALE/LITERATURE BASE:
This question addresses a number of areas of SACS and TBR policies related to institutional effectiveness, institutional research, as well as elements of planning policy. See Tabs 1 to 5.

EXPERT PANEL MEMBER COMMENTS(SUGGESTED QUESTION CHANGES):

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RECOMMENDED QUESTION WORDING CHANGES

Question 1

Question 2

Question 3

Question 4

Question 5

Question 6

Question 7

Question 8

Question 9

Question 10

Question 11

PLEASE ALSO IDENTIFY (ON SEPARATE SHEET) NEW QUESTIONS FOR CONSIDERATION
APPENDIX B

SURVEY INSTRUMENT
Survey of Tennessee Community College Leaders

Institutional Effectiveness Mandates, Practices, and Performance

This questionnaire seeks your perceptions on planning and institutional effectiveness mandates, practices, and performance as it relates to your college. As a community college leader in Tennessee, your response is very important to this study. Individual responses will be held in strict confidence and only group responses will be reported. If you have any questions, please contact Gary Skolits at (423)585-6897 at any time during the day or evening.

1. How many years have you been: with your current institutions?___ in college administration?___

2. Please identify your current position by checking the appropriate category below:

- President
- Vice President
- Dean
- Director/Administrator
- Other

(Please identify actual title)

3. Please describe your current job duties by checking the appropriate response below:

- primarily academic in focus
- primarily administrative in focus
- both academic and administrative in focus

4. Please describe your personal knowledge of each of the following by circling the appropriate response below:

<table>
<thead>
<tr>
<th></th>
<th>None</th>
<th>V. Low</th>
<th>Low</th>
<th>Moderate</th>
<th>High</th>
</tr>
</thead>
<tbody>
<tr>
<td>A. SACS Manual on Institutional Effectiveness</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>B. SACS Criteria Section III: Planning and Evaluation</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>C. SACS Criteria Section III: Institutional Research</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>D. TBR Planning Process</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>E. TBR Report Card</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>F. TBR Agenda 2000</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>G. Performance funding program</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>H. Your institutional planning process</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>I. Your institutional plan</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>J. THEC Strategic Plan (Uniting Tennesseans)</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>

5. Please indicate how effective overall, in your view, the performance funding program is in assessing the key educational and institutional elements of your college by checking the appropriate category below:

- Ineffective
- Barely Effective
- Somewhat Effective
- Effective
- Very Effective

6. Due to the performance funding scoring protocols such as multi-year cumulative scoring, selective scheduling of major fields to be assessed in a given year, point additions/subtractions for positive/negative trends, and special cycle exemptions, etc., your performance funding score and actual institution performance could differ considerably.
Given this possibility, please rate your institution’s most recent performance, not necessarily your associated performance funding score, on each of the following assessment measures by circling the most appropriate response below:

**Performance effectiveness of your college as indicated by the following assessment measures/Not necessarily your associated performance funding result**

<table>
<thead>
<tr>
<th>Measure</th>
<th>Weak</th>
<th>Moderate</th>
<th>Strong</th>
</tr>
</thead>
<tbody>
<tr>
<td>A. General Education</td>
<td>1. Performance 1</td>
<td>2 3 4 5 6 7 8 9 10</td>
<td>2. Use of Results 1</td>
</tr>
<tr>
<td>B. General Education Pilot Test (Pilot Test Participants Only)</td>
<td>1. Performance 1</td>
<td>2 3 4 5 6 7 8 9 10</td>
<td>2. Use of Results 1</td>
</tr>
<tr>
<td>C. Program Accreditation</td>
<td>1. Performance 1</td>
<td>2 3 4 5 6 7 8 9 10</td>
<td>2. Use of Results 1</td>
</tr>
<tr>
<td>D. Program Peer Review</td>
<td>1. Performance 1</td>
<td>2 3 4 5 6 7 8 9 10</td>
<td>2. Use of Results 1</td>
</tr>
<tr>
<td>E. Major Field Testing</td>
<td>1. Performance 1</td>
<td>2 3 4 5 6 7 8 9 10</td>
<td>2. Use of Results 1</td>
</tr>
<tr>
<td>F. Student Survey</td>
<td>1. Performance 1</td>
<td>2 3 4 5 6 7 8 9 10</td>
<td>2. Use of Results 1</td>
</tr>
<tr>
<td>G. Alumni Survey</td>
<td>1. Performance 1</td>
<td>2 3 4 5 6 7 8 9 10</td>
<td>2. Use of Results 1</td>
</tr>
<tr>
<td>H. Retention/persistence</td>
<td>1. Performance 1</td>
<td>2 3 4 5 6 7 8 9 10</td>
<td>2. Use of Results 1</td>
</tr>
<tr>
<td>I. Job Placement</td>
<td>1. Performance 1</td>
<td>2 3 4 5 6 7 8 9 10</td>
<td>2. Use of Results 1</td>
</tr>
<tr>
<td>J. Institutional Plan Goals</td>
<td>1. Performance 1</td>
<td>2 3 4 5 6 7 8 9 10</td>
<td>2. Use of Results 1</td>
</tr>
<tr>
<td>K. State Planning Goals</td>
<td>1. Performance 1</td>
<td>2 3 4 5 6 7 8 9 10</td>
<td>2. Use of Results 1</td>
</tr>
<tr>
<td>L. Overall (all standards)</td>
<td>1. Performance 1</td>
<td>2 3 4 5 6 7 8 9 10</td>
<td>2. Use of Results 1</td>
</tr>
</tbody>
</table>

7. From your perspective, please identify the level of importance that your institution places on the following by circling the most appropriate response below:

<table>
<thead>
<tr>
<th>Measure</th>
<th>None</th>
<th>V. Low</th>
<th>Low</th>
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</thead>
<tbody>
<tr>
<td>A. SACS Manual on Institutional Effectiveness</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>B. SACS Criteria: Section III on Planning and Evaluation</td>
<td>1</td>
<td>2</td>
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</tr>
<tr>
<td>C. SACS Criteria: Section III on Institutional Research</td>
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<td>D. TBR Planning Process</td>
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<tr>
<td>E. TBR Report Card</td>
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<td>4</td>
<td>5</td>
</tr>
<tr>
<td>F. TBR Agenda 2000</td>
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<td>G. Performance funding program</td>
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<tr>
<td>J. THEC Strategic Plan (Uniting Tennesseans)</td>
<td>1</td>
<td>2</td>
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<td>5</td>
</tr>
</tbody>
</table>
8. In your view, please indicate how strong TBR planning process expectations are for the following by circling the most appropriate response below:

A. Compliance with TBR policy
   None V. Low Low Moderate High
   1 2 3 4 5

B. Efficient use of resources
   None V. Low Low Moderate High
   1 2 3 4 5

C. Focusing institutional efforts
   None V. Low Low Moderate High
   1 2 3 4 5

D. Planned change toward state goals
   None V. Low Low Moderate High
   1 2 3 4 5

E. To promote equity
   None V. Low Low Moderate High
   1 2 3 4 5

F. To promote excellence
   None V. Low Low Moderate High
   1 2 3 4 5

G. To promote accessibility
   None V. Low Low Moderate High
   1 2 3 4 5

H. To promote accountability
   None V. Low Low Moderate High
   1 2 3 4 5

9. Please indicate at what level your institutional planning process promotes institutional consideration of the following by circling the most appropriate response below:

A. Technological Change
   None V. Low Low Moderate High
   1 2 3 4 5

B. Service area needs
   None V. Low Low Moderate High
   1 2 3 4 5

C. Political influences
   None V. Low Low Moderate High
   1 2 3 4 5

D. Social changes
   None V. Low Low Moderate High
   1 2 3 4 5

E. Business/industry changes
   None V. Low Low Moderate High
   1 2 3 4 5

F. Higher education trends
   None V. Low Low Moderate High
   1 2 3 4 5

G. Competition
   None V. Low Low Moderate High
   1 2 3 4 5

10. Please identify how strongly you feel your institution's most recent scores on the following performance funding measures accurately reflect the actual performance of your institution by circling the most appropriate response below:

   Accuracy of performance funding measures
   for reflecting actual institutional performance

   Weak Moderate Strong
   A. General Education Examination
      None V. Low Low Moderate High
      1 2 3 4 5 6 7 8 9 10
   B. General Education Pilot Test assessments
      None V. Low Low Moderate High
      1 2 3 4 5 6 7 8 9 10
   C. Program Accreditation assessment
      None V. Low Low Moderate High
      1 2 3 4 5 6 7 8 9 10
   D. Program Peer Review assessment
      None V. Low Low Moderate High
      1 2 3 4 5 6 7 8 9 10
   E. Major Field Testing
      None V. Low Low Moderate High
      1 2 3 4 5 6 7 8 9 10
   F. Student Survey
      None V. Low Low Moderate High
      1 2 3 4 5 6 7 8 9 10
   G. Alumni Survey
      None V. Low Low Moderate High
      1 2 3 4 5 6 7 8 9 10
   H. Retention/persistence benchmarks
      None V. Low Low Moderate High
      1 2 3 4 5 6 7 8 9 10
   I. Job Placement
      None V. Low Low Moderate High
      1 2 3 4 5 6 7 8 9 10
   J. Institutional Plan Goals
      None V. Low Low Moderate High
      1 2 3 4 5 6 7 8 9 10
   K. State Planning Goals
      None V. Low Low Moderate High
      1 2 3 4 5 6 7 8 9 10
   L. Overall (all standards combined)
      None V. Low Low Moderate High
      1 2 3 4 5 6 7 8 9 10

11. Please rank your level of agreement/disagreement with the following statements by checking the appropriate response below:

   A. The Board of Regents places a major emphasis on strategic planning
      None Very Low Low Moderate High
      — — — — — — — — — —
   B. My institution has a clearly defined mission statement.
      None Very Low Low Moderate High
      — — — — — — — — — —
   C. My institution has formulated specific instructional goals consistent with the mission.
      None Very Low Low Moderate High
      — — — — — — — — — —
   D. My institution has an established process for measuring progress achieved on each instructional goal.
      None Very Low Low Moderate High
      — — — — — — — — — —
   E. My institution has a meaningful strategic planning process.
      None Very Low Low Moderate High
      — — — — — — — — — —
   F. At my college we consider the external environment as part of our planning process.
      None Very Low Low Moderate High
      — — — — — — — — — —
   G. My institution has identified strategic issues facing the college.
      None Very Low Low Moderate High
      — — — — — — — — — —
   H. At my institution strategic goals have been developed to address major strategic concerns throughout the college.
      None Very Low Low Moderate High
      — — — — — — — — — —
I. At my institution the strategic plan is designed to bring about needed change.

J. At my institution we regularly assess progress on institutional strategic goals.

K. At my institution we tend to use results of major assessments for making improvements.

L. The TBR Report Card will promote my college's effectiveness.

M. Compliance with SACS institutional effectiveness criteria will make my college more effective.

N. Compliance with TBR planning requirements will make my college more effective.

O. My institution has fully implemented SACS institutional effectiveness criteria.

P. My institution has fully implemented SACS institutional research.

Q. Participation in the performance funding program promotes the effectiveness of my institution.

R. My institution regularly evaluates key functions of the college.

S. Institutional research is an integral part of my college's institutional effectiveness program.

T. My college's institutional research function is effective at collecting important institutional data.

U. My college's institutional research function is effective at analyzing important institutional data.

V. Our college's institutional research function is effective at disseminating important institutional research data.

W. Institutional research function is evaluated on a periodic basis at my college.

X. The institutional research function at my college has sufficient resources.

Y. Institutional research at my institution is responsive to major college needs.

Thank you for your assistance. Please insert the questionnaire in the envelope provided and return the envelope as requested.
EXPERT PANEL MEMBERS:

Peter D. Consacro
Associate Vice-Chancellor For Academic Affairs
Tennessee Board of Regents
Nashville, TN

Robert Exley
Program Director
Miami-Dade Community College
Morristown, TN

Jean Ann Irwin
Ph.D. Candidate, University of Tennessee (Research and Assessment in Education)
Associate Professor of Mathematics
Walters State community college
Morristown, TN

William McCulley
Director of Academic Programs
Tennessee Higher Education Commission
Nashville, TN

Anthony Newberry
Chancellor Kentucky Community College system
Lexington, KY

Survey Design Assistance:

Debra L. Scott
Director of Planning, Research, and Assessment
Walters State Community college
Morristown, TN
APPENDIX D

SURVEY COVER LETTERS AND FOLLOW-UP REQUEST
Dear Community College Leader:

I am a 15 year employee of Walters State where I serve as the Dean of Planning, Research and Assessment. Currently, I am a doctoral student in educational administration at East Tennessee State University where I am preparing a dissertation on SACS and Tennessee effectiveness and planning mandates and their influence on institutional practice and performance as perceived by community college leaders.

Based upon my years of experience with SACS, institutional planning and effectiveness issues, I am concerned about the large number of external mandates that Tennessee community colleges are expected to meet in comparison to institutions from other states. In fact, the purpose of the enclosed survey is to begin assessing how TBR colleges have responded to these numerous, unique and diverse external requirements.

During the validation and pilot testing of this instrument, your colleagues suggested that I stress three fundamental aspects of my design:

1. Your frank and critically honest perspective regarding these questions is absolutely essential for a meaningful understanding of community college mandates and their influence. In framing your response, please consider that we can learn more by being uncompromisingly honest about what is actually happening.

2. Please note that the units of analysis for this study are combined perceptions of community college leaders across the system, not individual leaders or individual institutions. The identity of the respondent is confidential and will only be used for follow up of non-respondents. Institutions and individuals will remain anonymous.

3. I am proud to be a community college graduate and an employee of a TBR community college; I also strongly believe in the important/fundamental societal role of these institutions as they serve our communities and citizens. In the future, I would hope that there will be a legitimate body of literature and empirical research on the influence of mandates such that policy makers can reasonably assess the actual need of utility of any newly proposed mandates or requirements.

I would like to sincerely thank you for your assistance in completing this survey. Instructions for the return of the survey is on the first page of the instrument. Please feel free to contact me as indicated on the survey instrument.

Sincerely,

Gary J. Skolits

Enclosures
Dear community college Leader:

You are being asked to be a participant in the field and/or pilot testing of a new survey instrument specifically designed to assess the impact of external mandates on community college effectiveness in Tennessee. Please complete the attached survey as if it was a final version. In the process of completing the survey, please make notes as to any changes you would recommend with regard to the wording of the survey.

Please note a special concern with regard to this survey is question reliability. Specifically, you are being asked to recommend changes in wording that would promote the reliability of each survey question. You will recall that reliability is the ability of a measure (or question) to give consistent results on repeated applications. To accomplish this, the questions must be clear and unambiguous.

In addition to wording changes on the survey instrument itself, please feel free to discuss any aspect of the survey with me directly. You are encouraged to comment on survey content, as well as any other aspect of the survey including design, content, readability, etc. Please call me (Gary Skolits) at (423) 585-6897 if there are any questions. I look forward to receiving your response and suggestions for improvement.

Your assistance is greatly appreciated.

Sincerely,

Gary J. Skolits
Selected College Leader (name)
Community College (Address)

Dear community college Leader:

You should have already received a letter, and a survey, from me regarding your participation in a study of institutional mandates and their influence on institutional practice and performance. This survey should have been delivered by the campus contact identified below. If you have already returned this survey, please accept my appreciation for your participation. If you have not had a chance to do so, please accept my sincere request for you to participate in this study; your responses to these survey questions are critically important and will ensure that your unique experiences and perceptions on these issues are represented.

If you would like another copy of the survey, please call your campus contact, or call me at 423-585-6897. I would need your response within two weeks to include your results in the final study.

Please feel free to contact me at any time with regard to any questions or any concerns. Your consideration of this request is greatly appreciated.

Sincerely,

Gary Skolits

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APPENDIX E

COMPOSITE INDEXES: INDEPENDENT VARIABLES
11. Please rank your level of agreement with the following statements (Likert scale 0,1,2,3,4)

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>Mean</th>
<th>Sd</th>
</tr>
</thead>
<tbody>
<tr>
<td>B.</td>
<td>86</td>
<td>3.49</td>
<td>.82</td>
</tr>
<tr>
<td>C.</td>
<td>86</td>
<td>3.21</td>
<td>.79</td>
</tr>
<tr>
<td>D.</td>
<td>92</td>
<td>2.78</td>
<td>1.01</td>
</tr>
<tr>
<td>G.</td>
<td>90</td>
<td>3.13</td>
<td>.84</td>
</tr>
<tr>
<td>H.</td>
<td>90</td>
<td>2.90</td>
<td>.86</td>
</tr>
<tr>
<td>J.</td>
<td>91</td>
<td>2.88</td>
<td>.94</td>
</tr>
<tr>
<td>K.</td>
<td>91</td>
<td>2.80</td>
<td>.91</td>
</tr>
<tr>
<td>M.</td>
<td>91</td>
<td>3.12</td>
<td>.94</td>
</tr>
<tr>
<td>O.</td>
<td>91</td>
<td>2.93</td>
<td>.87</td>
</tr>
</tbody>
</table>

Question 7.
From your perspective, please identify the level of importance that your institution places on the following:

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>Mean</th>
<th>Sd</th>
</tr>
</thead>
<tbody>
<tr>
<td>A.</td>
<td>92</td>
<td>3.21</td>
<td>.92</td>
</tr>
<tr>
<td>B.</td>
<td>93</td>
<td>3.16</td>
<td>.88</td>
</tr>
</tbody>
</table>
COMPOSITE INDEX QUESTIONS: SACS INSTITUTIONAL RESEARCH COMPLIANCE (X2)

11. Please rank your level of agreement with the following statements (Likert scale 0,1,2,3,4)

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>Mean</th>
<th>Sd</th>
</tr>
</thead>
<tbody>
<tr>
<td>P.</td>
<td>88</td>
<td>2.88</td>
<td>.95</td>
</tr>
<tr>
<td>R.</td>
<td>93</td>
<td>2.76</td>
<td>1.01</td>
</tr>
<tr>
<td>S.</td>
<td>93</td>
<td>3.07</td>
<td>.89</td>
</tr>
<tr>
<td>T.</td>
<td>92</td>
<td>3.16</td>
<td>.95</td>
</tr>
<tr>
<td>U.</td>
<td>91</td>
<td>2.97</td>
<td>1.01</td>
</tr>
<tr>
<td>V.</td>
<td>93</td>
<td>2.99</td>
<td>.99</td>
</tr>
<tr>
<td>W.</td>
<td>92</td>
<td>2.82</td>
<td>1.11</td>
</tr>
<tr>
<td>X.</td>
<td>92</td>
<td>2.20</td>
<td>1.07</td>
</tr>
<tr>
<td>Y.</td>
<td>93</td>
<td>2.89</td>
<td>.95</td>
</tr>
</tbody>
</table>

COMPOSITE INDEX QUESTIONS: TBR EXTERNAL ENVIRONMENT COMPLIANCE (X3)

9. Please indicate at what level your institutional planning process promotes institutional consideration of the following; (Likert scale 0,1,2,3,4)

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>Mean</th>
<th>Sd</th>
</tr>
</thead>
<tbody>
<tr>
<td>A.</td>
<td>91</td>
<td>3.44</td>
<td>.81</td>
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<tr>
<td>B.</td>
<td>90</td>
<td>3.40</td>
<td>.83</td>
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<tr>
<td>C.</td>
<td>92</td>
<td>2.68</td>
<td>1.08</td>
</tr>
<tr>
<td>D.</td>
<td>90</td>
<td>2.65</td>
<td>.78</td>
</tr>
</tbody>
</table>
E. Business/industry changes 89 3.25 .82
F. Higher education trends 92 3.02 .84
G. Competition 91 2.97 .88

Question 11, F.

At my college we consider the external environment as part of our planning process. 91 3.16 .77

COMPOSITE INDEX QUESTIONS: TBR PLANNED CHANGE COMPLIANCE (X4)

8. In your view, please indicate how strong TBR planning process expectations are for the following: (Likert scale 0,1,2,3,4)  

<table>
<thead>
<tr>
<th>N</th>
<th>Mean</th>
<th>Sd</th>
</tr>
</thead>
<tbody>
<tr>
<td>D. Planned change toward state goals</td>
<td>88</td>
<td>2.95</td>
</tr>
<tr>
<td>E. Promoting equity</td>
<td>88</td>
<td>2.81</td>
</tr>
<tr>
<td>F. Promoting excellence</td>
<td>91</td>
<td>3.00</td>
</tr>
<tr>
<td>G. Promoting accessibility</td>
<td>89</td>
<td>3.17</td>
</tr>
<tr>
<td>H. Promoting accountability</td>
<td>90</td>
<td>3.16</td>
</tr>
<tr>
<td>I. Promoting Articulation</td>
<td>90</td>
<td>2.84</td>
</tr>
<tr>
<td>J. Promoting Workforce Development</td>
<td>90</td>
<td>2.87</td>
</tr>
</tbody>
</table>

Question 11 I

The institution has designed the strategic plan to bring about needed change. 92 2.77 .96

COMPOSITE INDEX QUESTIONS: TBR REPORT CARD “PERCEIVED IMPORTANCE” (X5)

<table>
<thead>
<tr>
<th>N</th>
<th>Mean</th>
<th>Sd</th>
</tr>
</thead>
<tbody>
<tr>
<td>Question 4.e</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

(Likert scale 0,1,2,3,4) Please describe your personal knowledge of each of the following:

E. TBR Report Card 95 3.25 .85

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Question 7.e

From your perspective, please identify the level of importance that your institution places on the following:

E. TBR Report Card 91 3.22 .87

Question 11.L.

The TBR Report Card will promote my college’s effectiveness. 89 2.55 .98
VITA

Gary J. Skolits

Personal Data: Date of Birth: May 30, 1953
Place of Birth: Long Island, New York

Education:
Public Schools, New York
Suffolk County Community college, Selden, New York: (AA) Liberal Arts 1973
State University of New York, Geneseo, New York: (BA) Political Science 1975
Pennsylvania State University, University Park, PA: (MPA) Public Administration 1976
East Tennessee State University, Johnson City, Tennessee: (Ed.D) Higher Education 1999

Professional Experience:
Miami-Dade Metropolitan Government, Capital Improvements Coordinator (Office of the County Manager) 1976 - 1979

Urban Planning Consultant, Tennessee Valley Authority, Knoxville, TN 1979 - 1980


Dean of Planning, Research, and Assessment & Assistance Vice-president for Academic Affairs, Walters State Community College, Morristown, TN 1983 - 1999