AN INVESTIGATION OF BENCHMARKING AS AN ACCOUNTABILITY PRACTICE IN HIGHER EDUCATION

by

SUE D. ACHTEMEIER

(Under the direction of RONALD D. SIMPSON)

ABSTRACT

This research comprised in-depth interviews with twelve leaders in higher education to gain their understandings of *benchmarking* and its relationship to accountability held by various constituencies within a large research university and its related governing system. Three representatives were chosen from each of four groups: the Corporation, the Collegium, and the Community, as characterized by Downey's model, within State University, and the external Governing Board. Transcripts of the taped interviews, analyzed by the constant comparison method, revealed three major themes. These were concerns for communication, concentration, and calibration of any *benchmarking* effort.

Analysis of the data revealing these concerns led the researcher to make the following three recommendations:

1. When initiating a suggestion that *benchmarking* be employed for any purpose, clearly communicate with all stakeholders and participants in order to agree which definition of the term will apply, while acknowledging its limitations, what the payoff will be, and how gaps will be addressed.

2. Concentrate any *benchmarking* effort to address the greatest perceived needs thus utilizing resources most efficiently and assuring accountability for a few important indicators throughout a sustainable longitudinal effort**.**
3. Carefully calibrate *benchmarking* indicators and interpret them within the context of clearly stated objectives to overcome inherent data difficulties.

Three other themes emerged from the research. First, the interviewees understood many different definitions of *benchmarking* revealing the inherent and often unacknowledged confusion that arises when using the term. Second, regardless of different definitions, participants considered *benchmarking* useful for informing planning activities and resource allocation and for providing a reality-check on ones perceptions of ones own progress toward excellence. Third, interviewees expressed fear of *benchmarking* possibly leading to loss of local control by campus decision makers or being used in an inappropriate manner.

Finally the researcher addresses inherent differences between academic and business cultures and urges caution and communication before applying business success-models of evaluation, like *benchmarking*, uncritically to the higher education environment.

INDEX WORDS: *Benchmarking*, Accountability, TQM

AN INVESTIGATION OF BENCHMARKING AS AN ACCOUNTABILITY PRACTICE IN HIGHER EDUCATION

by

SUE D. ACHTEMEIER

B. A., Florida State University, 1967

M. S., Florida State University, 1969

A Dissertation Submitted to the Graduate Faculty

of The University of Georgia in Partial Fulfillment

of the

Requirement for the Degree

DOCTOR OF PHILOSOPHY

ATHENS, GEORGIA

2002

AN INVESTIGATION OF BENCHMARKING AS AN ACCOUNTABILITY

PRACTICE IN HIGHER EDUCATION

by

SUE D. ACHTEMEIER

Approved:

Major Professor: Ronald D. Simpson

Committee: Robert G. Boehmer
Patricia L.Kalivoda
Libby V. Morris
Edward G. Simpson, Jr.

Electronic Version Approved:

Gordhan L. Patel
Dean of the Graduate School
The University of Georgia
August 2002

DEDICATION

Dedicated in memory of my father, J. Lester Dicus, who first taught me to be a researcher, and in honor of my mother, Lucille L. Dicus, who continues to be passionately inquisitive about the world.

"Whatsoever ye do, do all to the glory of God." I Corinthians 10:31

ACKNOWLEDGEMENTS

My first and foremost thank you goes to my major professor, Dr. Ron Simpson, truly a teacher-scholar whose encouragement beginning in 1996 sparked this research adventure and changed the course of my life. Dr. Simpson taught me that we all "stand on the shoulders of giants." He is surely one of those giants, not only to me but to countless others, whose lives he has touched for the better. I am grateful to be a small part of his legacy.

Many thanks are due the rest of my committee whom I have come to appreciate for their significant gifts. Dr. Patricia Kalivoda is a conscientious and encouraging example who has continually shared her determination to do all things well. Dr. Libby Morris is an industrious researcher and an unselfish mentor and friend who has conscientiously set useful guideposts all along the way. I appreciate Dr. Bob Boehmer, an optimistic, intelligent, and collegial boss with an unlimited enthusiasm for tackling what others may think impossible, and Dr. Ed Simpson, one who is always willing to share resources and draw attention to the distinction between the theoretical and the way things actually are. I am grateful to you all.

My thanks go also to other faculty who have been indispensable:
– to Dr. Larry Jones, who taught me that careful preparation should precede any research and who shared his time to help me put that into practice by piloting my interviewing protocol,

– to Dr. Patricia Reeves, whose enthusiastic introduction to the adventure of qualitative research enabled my quest and who unselfishly reviewed my interview protocol,

– to Dr. Scott Thomas, who encouraged me by thinking with me about possibilities for further research, and

– to the other faculty of the Institute of Higher Education who populated this adventure and eagerly shared their expertise.

My gratitude is extended to Ms. Delores Wallace and Ms. Joyce Placek, whose smiles and shared knowledge from the beginning to the end of this adventure have said, "You can do this!" and to Ms. Joy Kellum, a constant "can do" transcriber and an indispensable aid in this research. Thank you to Ms. Alisa Howen, Ms. Susan Sheffield, and Ms.Anne Jarvis, for their quiet and pervasive competence and their aid in many requests. Thank you, David Knox, for your time and help in demystifying the electronic format. My special thanks go to the Graduate School of the University of Georgia for their support while I conducted my dissertation research and to all the academy leaders who generously agreed to participate in this investigation.

My lifelong thanks goes to my family:

– to my children, Cheryl A. Barkley and Scott A. Achtemeier, and my sister, Dottie Lowell, the best cheerleaders anyone could hope for with their constant interest and encouragement,

– to my brother-in-law, The Rev. H. Marshall Lowell, for being a proof-reader extraordinaire, and

– to Dr. Gary Achtemeier, the love of my life, who made all this possible.

TABLE OF CONTENTS

Page

LIST OF TABLES

LIST OF FIGURES

CHAPTER 1

INTRODUCTION

Calls for accountability in higher education have become more frequent in the last several decades. Agreement among the various stakeholders on methods of assuring accountability, however, is lacking.

Introduction to the Problem

As often as the term "accountability" is used, one would expect its meaning to be unambiguous. This is not the case, however, as each speaker has his or her own conception of accountability (Kuchapski, 1997). "Although the call for accountability is nothing new to higher education, there seems to be an increasing number of vested parties, often with divergent interests, making sophisticated and intrusive attempts to monitor and influence the way colleges and universities operate" (Borden & Banta, 1994).

Assessment of institutional effectiveness became increasingly popular among legislative and accrediting bodies throughout the 1980s and 1990s. Prominent within this movement were debates over the evaluating of instructional outcomes and an increasingly prevalent trend for legislatures to tie a portion of funding to these outcome measures. In the State of Georgia, Governor Roy Barnes is revising the Strategic Plan for the State "to emphasize results and accountability as educational priorities" (USG, 2000). Discussions of what outcomes to measure and how to measure them have ensued. As recently as February 1999, members of the Triad, which comprises regional accrediting,

state, and federal agencies that focus on accountability of higher education in the United States, met in Athens, Georgia. Their goal was to address issues of quality assurance, accountability, and standards as well as the division of their respective roles, responsibilities, and authority. This Triad partnership was invented by the federal government for quality assurance in higher education and has evolved since 1972 (Pew, 1999). At the February meeting, it became clear that there was a lack of agreement over the definitions of accountability, quality assurance, quality improvement and standards, and no single answer regarding who should be accountable to whom for what.

According to Grady Bogue and Robert Saunders, educational quality "is conformance to mission specification and goal achievement – within publicly accepted standards of accountability and integrity" (1992, p.20). They go on to discuss various interpretations of and tests for the assurance of quality in higher education. Bogue states that there are at least four main streams influencing contemporary approaches for quality assurance in colleges and universities (Gaither, 1998, p. 7-18). The most traditional method includes accreditation and program reviews. A second approach is the assessment and outcomes movement. A third stream of influence is Total Quality Management (TQM) with its focus on continuous improvement. A fourth quality assurance trend is accountability through performance indicators that are sometimes linked to funding levels.

Accreditation is the oldest form of accountability and best-known seal of quality in higher education in the United States (Gaither, 1998, p.10). It is a peer review process guided by a set of expectations about quality and integrity jointly established by the accrediting agency and the institutions being served. Whereas higher education in most

other countries is prescribed and evaluated by the government, "American higher education has emerged over its 350-year history as a diverse, competitive, decentralized 'system', with vibrant private and public sectors in which colleges and universities enjoy comparatively high autonomy. As a result, American higher education has become the envy of the world . . ." (CHEA, 2001).

The assessment movement began in the 1980s. In response to a number of critical reports published during that decade, calls for improvement in American higher education led to efforts to "demonstrate by assessment and measurement the presence of quality . . ." (Morris, 1994, p.54). The assessment movement continues to yield much data to address Patrick Terenzini's question: "What does one get out of a college education?" (Bogue & Saunders, 1992, p. 162). But Alexander Astin cautioned that "some of our assessment activities seem to conflict with our most basic educational mission" (Astin, 1991, p. ix).

The continuous quality movement has its roots in the work of W. Edward Deming, the father of Total Quality Management, who developed statistical control and sampling processes at Bell Telephone Laboratories. Having first enjoyed success in Japan after 1946, TQM was reintroduced into American businesses. The most important quality criterion for TQM is customer satisfaction; therefore, the processes that lead to customer satisfaction must be measured and improved continually in an ever-changing and competitive business environment (Teeter & Lozier, 1993). The migration of TQM, or its companion Continuous Quality Improvement (CQI), into higher education proceeded from a view of the university as another business competing for students as customers in the process of education (Birnbaum, 2000). In surveying the ERIC national

educational literature database between 1990 and 1995, Alstete (1995) discovered that references to TQM peaked in 1993 then noticeably declined. Perhaps this was because when comparing business and higher education, as Birmbaum has noted, "differences between technical and social systems were ignored" (2000, p.99).

Performance indicators are an outgrowth of the assessment movement of the mid-1980s. They are a management tool comprised of ratios of operational statistics and are often established because of the availability of the data (Gaither, Nedwek, and Neal, 1994). As early as 1979, the Tennessee legislature sought greater accountability by adopting a higher education funding policy that linked a percentage of each institution's budget to its performance on selected variables rather than on enrollment alone. This measuring of performance provided an incentive to improve quality as defined by the indicators and allowed state government to "revise the standards to encourage attention to new areas" (Bogue & Brown, 1982, p.124). Other states have since adopted the practice of performance funding. "Performance funding represents the most recent step in the search for external accountability and improved performance that started with outcomes assessment and performance reporting" (Burke & Serban, 1998, website). Performance indicators are related to the idea of *metric benchmarking*, which the researcher will discuss in Chapter 2.

Purpose of the Study

Benchmarking is a technique that grew out of TQM. This study will explore various definitions of *benchmarking* as they are used in business and will follow the derivative definitions of *benchmarking* that are being applied to higher education. Strengths and weaknesses of various approaches will be discussed along with

recommendations for best fit to higher education. The following research questions will guide this investigation:

1. Do members of the university community share the same understandings of *benchmarking* as members of the business community?

2. Do the various participants understand each other when they plan or require *benchmarking*?

3. Do *benchmarking* efforts actually change anything within an institution?

4. Is *benchmarking* more appropriate to some sectors within the academy than others?

5. Is *benchmarking* a good fit as a tool for accountability in higher education?

This investigation will address these questions using a qualitative research design. Extensive interviews with key educational leaders will be conducted. These participants represent the three major components of Downey's tripartite model of the modern university: the collegium, corporation, and community. The twelve research subjects were carefully drawn from a large university campus, the central administration for the state system, and the governing board appointed by the governor of the state. Interview date will be analyzed in order to discover the beliefs and perceptions of the participants regarding the purpose, process, and results of *benchmarking* in higher education.

Definition of Qualitative Research Terms

Although qualitative research methods are well established, selected terms that appear in this paper are defined.

Analytic Memos: Analytic memos contain "systematic reflection on [the researcher's] directions and purposes, as guided by their emergent analytic framework" (Glaser & Strauss, 1970, p. 290).

Audit Trail: An audit trail is a description in detail of " how data were collected, how categories were derived, and how decisions were made throughout the inquiry" (Merriam, 1988, p.172) so that another researcher could replicate the study.

Category: A category represents a unit of information emerging from the data (Strauss & Corbin, 1990). Categories are fragments "having some common property or element" (Coffey & Atkinson, 1996, p. 27).

Coding: Coding means "assigning tags or labels to the data, based on our concepts" (Coffey & Atkinson, 1996, p. 26). According to Seidel and Kelle (1995, pp. 55-56) coding aids conceptualization in:

a) noticing relevant phenomena,
b) collecting examples of those phenomena, and
c) analyzing those phenomena in order to fine commonalities, differences, patterns, and structures.

Constant Comparison Method: This data analysis method is a "process of taking information from data collection and comparing it to emerging categories" (Creswell, p. 57).

Emic Perspective: An emic perspective represents the "subjective experience of the participants" (Rossman & Rallis, 1998, p.38) or the "insider" perspective.

Member Checks: Member checks denote the process of taking data and interpretations back to the contributing interviewee to check the plausibility of the results (Merriam, 1988, p.169).

Purposeful Sampling: Purposeful sampling is a non-probabilistic form of sampling of individuals who have "different perspectives on the problem, process, or event" (Creswell, 1998, p. 62) being investigated.

Segmenting: Segmenting describes the "identification of key themes and patterns" (Coffey & Atkinson, 1996, p. 26).

Organization of the Study

Issues concerning the trend toward accountability in higher education, the purpose of the study, its organization, and definitions of selected terms are discussed briefly in Chapter 1. Chapter 2 contains a review of various descriptions from pertinent scholarly literature of *benchmarking* and its relationship to performance goals and performance indicators. Two contemporary educational *benchmarking* consulting firms are discussed along with published views of *benchmarking's* relationship to change and accountability.

In Chapter 3 an overview of the design of this study is presented. The rationale for using in-depth interviews, a purposeful sample selection, and the data analysis method are discussed. Assumptions and limitations of the study are presented. Interviews were conducted with key representatives from the university governing system and from within the academy. The data revealing the twelve interviewees' understandings of the purpose, process, and results of *benchmarking* are presented in Chapter 4.

In Chapter 5 the researcher summarizes the findings from the data and presents suggestions for more effective uses of *benchmarking* for accountability. Implications for practice are explored. Recommendations for future research are also presented.

Chapter Summary

TQM is one example of a practice that originated in business and then migrated into higher education. Robert Birnbaum discusses TQM along with Planning Programming Budgeting System (PPBS), Zero-Based Budgeting (ZBB), Management by Objectives (MBO), and Business Process Reengineering (BPR) as efforts to make colleges "be more like a business" (2000, p.xiii). Curiously, he says, the question, "Why can't a firm be more like a college?" (p.xiii) is seldom asked.

Often one finds that tension exists between the perspectives of the academy and business. A 1979 survey of 292 corporate chief executives produced data that revealed interesting and apparently conflicting values within that group. While ninety-six percent of those surveyed stated that corporate interests were best served by preserving the basic freedoms of higher education in the United States, over fifty percent of these same leaders expressed unwillingness to provide financial or other support to higher education without "interfering in academic policies and practices" (Gold, 1981, p. 11). These executives represent a significant part of higher education's sponsoring public. This public, through its elected representatives, has increased its efforts to find ways to hold higher education accountable and to tie that accountability to funding. Experiments in performance based funding in several states illustrate this point.

Birnbaum examines management techniques that have enjoyed brief popularity and scrutinizes their relationship to the functioning of colleges and universities. "In the

case of higher education, innovative management techniques and tools may appear to be value-free technologies, but in fact their deep ideological foundations have been at the core of . . . the first academic management revolution, [*Taylorism,* which] took place at the turn of the century and lasted for about sixty years. It emphasized means rather than ends. Its goal was to make higher education more efficient and accountable – that is, more businesslike" (2000,p. xii). Birnbaum acknowledges that *Taylorism* led to the triumph of mangerialism in higher education but he echoes Callahan's critique from the classic *Education and the Cult of Efficiency* that "the whole development produced [administrators] who did not understand education or scholarship" (Callahan, 1962, p. 247, as quoted in Birnbaum, 2000, p. 18).

Benchmarking is a recent tool adopted from business that is being applied to higher education in an effort to increase accountability to the sponsoring public. The next chapter will review various definitions and understandings of *benchmarking* from current literature. It will also address published perceptions of *benchmarking's* relationship to change and accountability and will introduce the approaches to *benchmarking* facilitated by two educational consultants.

CHAPTER 2

REVIEW OF THE LITERATURE

The aim of TQM as a business process is to assure that manufactured products are "fit for purpose," which is defined as satisfying the customer. According to Sylvia Codling, the aim of American business in the first half of the twentieth century, motivated by shortages created by wars, had been to manufacture large quantities of staple goods. "The customer," she quotes Erich Fromm as saying in 1941, "is an object to be manipulated, not a concrete person whose aims the businessman is interested to satisfy" (1995, p. 21). The increasing availability of goods and the birth of marketing in the 1960s, however, transformed business into a consumer-driven operation. Losing market share to companies whose products were better made motivated businesses to change their cultures into ones focused on total quality throughout their operations. Globalization of markets has further enhanced this trend. Companies are forced to turn their gaze outward in order to survive. They have found they need to learn from competitors who have appeared in new locations. In an article in Harvard Business Review in 1960, Theodore Levitt announced research findings proclaiming that major innovations in any sector come from outside an industry (Codling, 1995, p. xi). *Benchmarking* is a method for discovering such innovations outside one's own domain. As such it adds an external comparison dimension to TQM's internal model for continuous improvement and long-term commitment to quality.

Categories of *Benchmarking*

Benchmarking, a tool for improvement in businesses in the United States since the 1980s, has become a recommended tool for assuring accountability in higher education (Board of Regents of the University System of Georgia, 2000). While various advocates may have a clear conception of their own definitions, *benchmarking* suffers from a lack of clarity and consistency of understanding. At least three distinct forms of *benchmarking* can be defined. In this chapter the researcher will review definitions of *process benchmarking*, *metric benchmarking*, and *standards (outcomes) benchmarking*. She will also discuss performance goals and performance indicators as they relate to *benchmarking*.

Process Benchmarking

Process benchmarking can be designated as the "original" form of *benchmarking* used in business. According to David Yarrow, it is the form of *benchmarking* most extensively discussed in business literature (Smith, Armstrong, & Brown, 1999). *Benchmarking* may have originated in Japan in a practice called *Shukko*. This involved a type of job rotation to understand processes within an organization but included going outside of the organization and bringing back new practices that would move the organization forward (Zairi, 1996a, p.34). Formalizing the process and attaching the name *benchmarking* is widely attributed to the Xerox Corporation (Camp, 1989; Codling, 1995; Finnigan, 1996; Smith et al., 1999).

In 1979 Xerox found itself threatened by a decreasing market share. An investigation led to the discovery that substantially higher U.S. manufacturing costs contributed to its competitors' selling copiers for what it cost Xerox to manufacture them

(Camp, 1989). Initially called "product and quality comparisons" (p.6), this investigation became known as *competitive benchmarking*. David T. Kearns, then chief executive officer of Xerox Corporation, derived the following formal definition from the company's early experience and success with the process:

> *Benchmarking* is the continuous process of measuring products, services, and practices against the toughest competitors or those companies recognized as industry leaders (p. 10).

Robert Camp, as manager of the *Benchmarking* Competency, U.S. Marketing Group, Quality Office for Xerox, formalized a ten-step process from Xerox's experience that provided a model for subsequent use in other businesses. The ten steps are grouped into planning, analysis, integration, and action phases as shown in Figure 1.

Planning:	1. Identify what is to be *benchmarked*
	2. Identify comparative companies
	3. Determine data collection method and collect data
Analysis:	4. Determine current performance "gap"
	5. Project future performance levels
Integration:	6. Communicate *benchmark* findings and gain acceptance
	7. Establish functional goals
Action:	8. Develop action plans
	9. Implement specific actions and monitor progress
	10. Recalibrate *benchmarks* and return to step one
Maturity:	Leadership position attained
	Practices fully integrated into processes

Figure 1: Camp's Ten-step Benchmarking Model

The fifth phase, maturity, reflects the results for an organization when the *benchmarking* process has been successful. Though the model mentions data, several components implicated in this model are significant to understanding the *process* version of *benchmarking*. First, the emphasis is on *process*, hence this is not a singular matching of statistics against a competitor's data to ascertain where one ranks. Second, *process benchmarking* is conceived as a continuous activity. This reflects its roots in TQM, a continuous, cyclical Plan-Do-Check-Act process for self-analysis and improvement (Teeter & Lozier, 1993). Third, the emphasis is on self-examination, not just scrutinizing others, since one must thoroughly understand one's own operations, strengths, weaknesses and culture to determine if and how observed best practices of others can be adopted or adapted. Some, including Camp, have suggested that this self-examination is really Step Zero and must precede looking at any other organization. Fourth, as in TQM, the *benchmarking* participants are expected to include the process owners, the ones who actually do the work under investigation and hence understand the process best. Fifth, the process is formalized and systematic, involving commitment at all levels within an organization. Sixth, *benchmarking* assumes a commitment to change.

Woodrow Wilson said: "We should not use all the brains we have, but all that we can borrow" (DOE, 2000). Though this statement is partially true of *process benchmarking*, *benchmarking* is not just copying (Spendolini, 1992). Camp refers to a quotation from The Art of War by Sun Tzu, a Chinese general in 500 B.C., as more representative of the *benchmarking* concept. The general wrote: " If you know your enemy and know yourself, you need not fear the results of a hundred battles" (Camp, 1989, p.3). Camp suggests that competition in business is conducted by Sun Tzu's rules.

He also characterizes the motivation for this competition using a Japanese word, *dantotsu*, which means striving to be the "best of the best."

Camp discusses four kinds of *benchmarking*. These are *internal*, *competitive*, *functional*, and *generic*. *Internal benchmarking* is the easiest to undertake since it involves comparison among units all of which are under the control of the *benchmarking* organization. Any large institution or international firm will have several subunits that perform the same type function. An example is the purchase and control of inventory of office supplies. Data about how each of these subunits functions are readily available to the institution, which thus can learn by comparing and identifying best practices from within.

The three remaining categories, *competitive, functional,* and *generic,* compose e*xternal benchmarking*. *Competitive benchmarking* is undertaken against one's direct product competitors. Though this may be the most difficult type in which to collect data, it is the most relevant to an organization's improvement in its market arena. Adherence to a codified statement of ethics has made this type of *benchmarking* more feasible. This *Benchmarking* Code of Conduct [Appendix A] specifies abiding by principles of legality, exchange, confidentially, use, first and third party contact, preparation, completion, understanding, and action. The Code also encourages etiquette and ethics to dictate all of one's *benchmarking* actions (APQC, 8/23/2001). Realization that this process can be mutually beneficial has also enhanced its acceptance (Camp, 1989).

Functional benchmarking refers to comparing similar functions in non-competing industries. For example, Xerox identified L. L. Bean as an industry leader for comparison of fulfilling orders and operating its warehouse. *Functional benchmarking*

usually allows greater ease in collecting data and is more likely to reveal innovative practices. These practices may or may not be relevant to one's own organization however. Some call this type *industry benchmarking* and restrict it to the same sector of businesses (Alstete, 1995).

Generic benchmarking involves the widest possible range of *benchmarking* partners, regardless of how dissimilar they are in other ways, who are identified as the best-in-class regarding the process that is the focus of the *benchmarking* effort. Here, too, it is usually easier to collect data and discover innovative practices than it is in *competitive benchmarking,* but one must take care to determine their fit to one's own organization.

The success of its early efforts convinced Xerox to adopt *benchmarking* as a corporate-wide effort by 1981 (Camp, 1989). When Xerox won the Malcolm Baldrige National Quality Award in 1989, it credited its success to its *benchmarking* efforts (Zairi, 1996b). Thereafter, the Baldrige award added to its requirements that any winner must compare its operations to those of other firms. Thus the *benchmarking* revolution emerged (APQC, 10/8/2000). The number of annually published books featuring *benchmarking* that are listed by Amazon.com hovered between one and four from 1989 to1993. The number then spurted to between thirteen and sixteen per year from 1994 to 1996. Since then it has declined to eight in each of 1997 and 1998 and down to one in 1999 (Jackson & Lund, 2000).

Once *process benchmarking* became popular, many variations of the ten-step plan appeared. There were 4-, 6-, 7-, 8-, 10-, and 13-step methods (Camp, 1995). When Michael J. Spendolini (1992) contacted fifty-seven companies to ask their definitions of

benchmarking, he collected forty-nine variations of understanding. A common thread that connected all of these understandings was an acknowledged need to satisfy the customer. Having enjoyed decades of unchallenged dominance, U.S. companies had created barriers to their own success in a competitive world market. The success Xerox realized when it responded to the Japanese threat to its market by committing to changing its management practices through developing a continuous *benchmarking* culture prompted others to do the same (Haavind, 1992).

With so many variations in the understandings of *benchmarking,* it is no surprise that there was confusion when companies wanted to apply this wonder-tool for success. Norman Bodek, President of Productivity, Inc., lamented that, "Despite the national surge of interest, unfortunately, few companies know what they are doing when they undertake a *benchmarking* study" (APQC, 1993, p.xiii). This confusion spurred the brief proliferation of "How To Benchmark" books mentioned above. It also spawned another essentially different understanding of the term *benchmarking,* that of *metric benchmarking*.

Metric Benchmarking

When Robert Camp first described the *benchmarking* process formalized at Xerox, he emphasized that it focused on an understanding of business processes. As part of that understanding he recognized that *benchmarking* firms would also discover competitors' quantitative data or "metrics" that differed from their own. These metrics would help identify the gaps between companies. He diagrammed this relationship as shown in Figure 2.

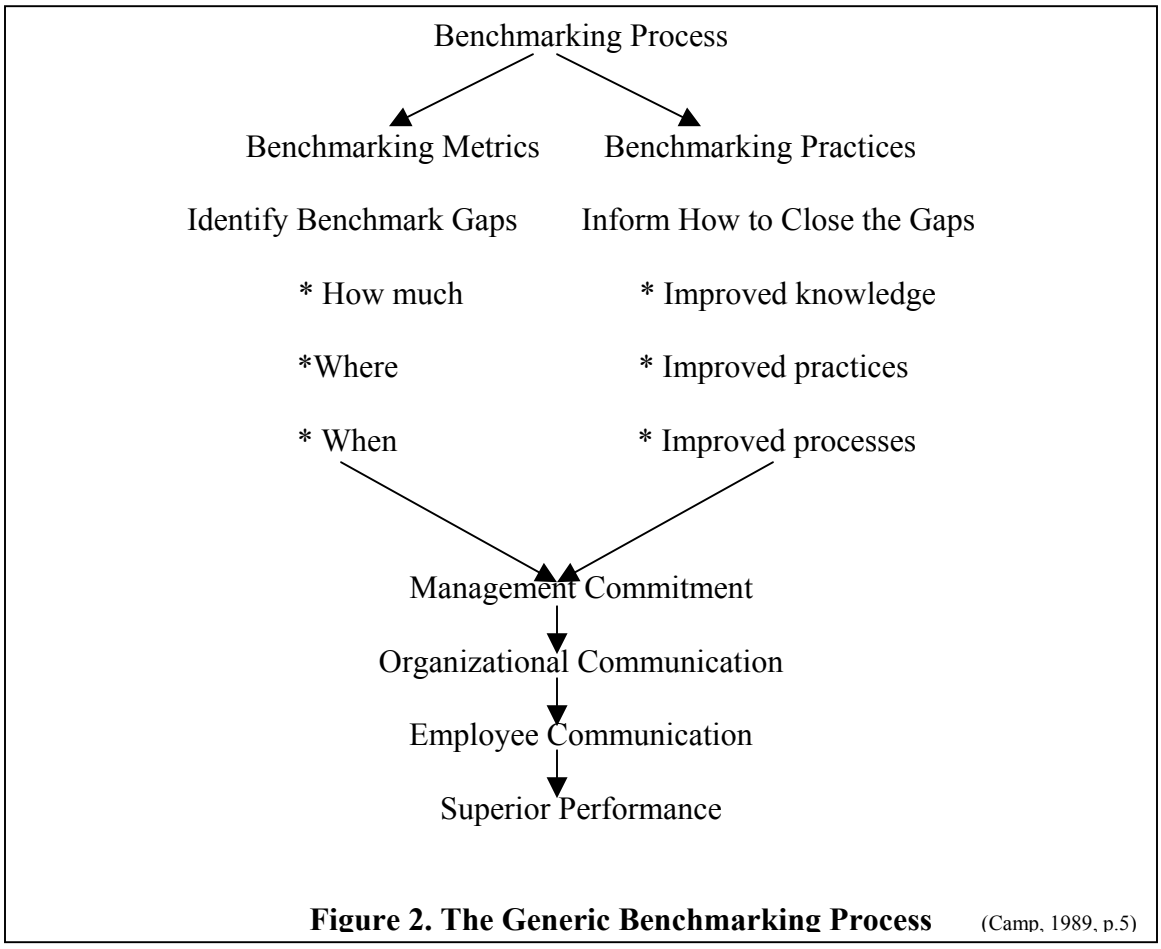

Figure 2. The Generic Benchmarking Process (Camp, 1989, p.5)

Camp realized how attractive it would be for managers to grasp these metrics as the significant result of the *benchmarking* process, and he insisted that this was exactly the reverse of the intent of *process benchmarking.*

> *Benchmarking* should be approached on the basis of investigating industry practices first. The metrics that quantify the effect of the practices can be obtained or synthesized later. One cannot determine why the gap exists from the metrics alone. Only the practices on which the metric is based will reveal why. The reverse is not always possible, and it could mislead or defeat the purpose of *benchmarking* (Camp, 1989, pp. 4-6).

Besides being easy to grasp, these metrics can be attractive for another reason. While insisting that *benchmarking* is not difficult, Spendolini relates the "key message"

that *benchmarking* can be a labor-intensive effort. He estimates that for a *benchmarking* team of four or five people, ten percent of their time will be required for most of the four to six weeks of a typical project. He generalizes that their time commitment percentage may rise to twenty-five percent for portions of that period or for high-priority projects (1992, p. 36). *Process benchmarking* consequently is not inexpensive. In a 1993 survey of eighty American companies, APQC determined that the average company's cost for one *process benchmarking* study was $70,111.00 (APQC, 1993, p. 115). Each of the eighty companies surveyed engaged in an average of 8.8 *benchmarking* studies annually. Avoiding these time and dollar costs may have motivated many to consider *metric benchmarking* as a separate activity and may have caused the metric version to become the only understanding that many envision when they hear the term *benchmarking*.

Webster's New World Dictionary defines a *benchmark* first as a surveyor's mark on a permanent landmark for use as a reference point in determining other altitudes and second as a standard in judging quality, value, etc. The idea of *metric benchmarking* seems to fit this definition. Alex Appleby divides his understandings of *benchmarking* into three categories: *metric*, *diagnostic*, and *process* (Smith et al., 1999). By *metric benchmarking* he means determining the "what" but not the "how." This is the "numbers" approach to *benchmarking* in which an organization uses quantitative data to make direct comparisons either internally among its own units or externally with its comparator or aspirational organizations to determine how well it "stacks up." Often the information one uses for *metric benchmarking* is readily available in published databases. *Diagnostic benchmarking* is very similar to *metric benchmarking* but it consists of charting the performance of a group of organizations against each other based on their

responses to a standardized evaluation tool such as PROBE (PROmoting Business Excellence). Appleby's concept of *process benchmarking* encompasses the four types discussed by Camp (internal, competitive, functional, and generic). Appleby identifies *metric benchmarking* as the easiest of his three types, requiring minimal effort and resources, but he also acknowledges that it yields the least knowledge and benefit (Smith et al., 1999). The American Productivity and Quality Center refers to comparing metrics as "competitive analysis" and not as *benchmarking* at all (APQC, 1993, p. 30). Codling says that comparing metrics is "competitive analysis to establish where [an organization] is in relation to other firms in a given region or market" (1998, p. 57). According to Codling, this can help identify areas for improvement but is only a precursor to *benchmarking*.

Ziari defines *metrics* as "short-term measures which have to be continually calculated and reviewed" (1996a, p.37). Appleby calls them "performance indicators" and advocates caution in their use (Smith et al., 1999). One pitfall is that the numbers from two organizations may not represent the same definition of a phenomenon. How is labor cost per unit of product calculated for example? Does it reflect only production labor or does it include some portion of management costs? If so, how is that portion determined? In higher education a datum as simple as fall enrollment easily becomes complicated when one must decide exactly which categories of students are to be included and as of what date they are to be counted.

Another pitfall is that *metric benchmarking* can easily lead to the idea of rankings, an idea that is appealing because of its seeming certainty. Rankings, however, give no indication that they represent like-with-like comparisons. They may even mislead one

into an unmerited complacency if, for example, one decides that things are "good enough" as long as one ranks in the top twenty per cent. Another misleading aspect of rankings is that they do not necessarily indicate a statistically significant difference among those being ranked. To correct for these difficulties, Appleby recommends that *metric benchmarking* be only a first step. He suggests that any gap analysis using performance indicators be followed by an investigation of the processes that produced the results. He recommends this follow-up examination of processes for *diagnostic benchmarking* as well (Smith et al., 1999).

Standards Benchmarking

Standards or *outcomes benchmarking* seems to be a British alternative to *metric benchmarking*. Norman Jackson, Assistant Director of the Quality Assurance Agency (QAA) and a Senior Research Fellow of the University of Surrey, Great Britain, states that though learning from others is not a new idea, some processes and interpretations of that practice are new. Among these he categorizes two different notions of *benchmarking*, namely:

> *developmental* or *process benchmarking* – promoting best practices, and
>
> *regulatory benchmarking* – assuring quality and standards (Smith et al.,1999, p.xi).

Jackson acknowledges the tension between the two purposes and attributes the conflict and confusion over *benchmarking* in British higher education to that tension. Jackson discovered *process benchmarking* while working on the Graduate Standards Programme for the Higher Education Quality Council. As part of its efforts the Council initiated Pilot Studies in *Benchmarking* Assessment Practice in 1998. This effort allowed

the people who created subject standards to better share their understanding of those standards. At about the same time the British National Committee of Inquiry in Higher Education was considering these Pilot Studies, they were also being influenced by the work of the Australian Academic Standards Panels, which conducted programme subject reviews based on visits and evaluation of statistics and documentary information. The final recommendations of the British National Committee, also called the Dearing Report, leaned toward the *regulatory* form of *benchmarking*. Jackson attributes the current standards designated as *benchmarks* for British higher education to the influence of these events (Smith et al.,1999).

These standards focus on student outcomes. Specification of these standards is supposed to inform all stakeholders – students, parents, employers, academics, accreditors, and funders – "reliably, explicitly, and in ways that are readily understood exactly what is being provided by those who develop and deliver the curriculum . . ." (Smith et al.,1999, p.1). The QAA established "expert teams" to articulate higher education standards at the subject level and to establish a "quality assurance framework" that includes explicit statements of the outcomes and the quality of academic provisions in ways that could be measured by nationally-used descriptors (p.1). The intent was *regulatory benchmarking* which would classify all participating institutions into one of three groups – those below, achieving, or exceeding the mean threshold standards. It was suggested that exceptionally good or poor results should affect government funding for those institutions (p.9). Clearly this concept of *standards benchmarking* is entirely different from the "original" business understanding of *process benchmarking*. It also differs substantially from *metric benchmarking*.

Benchmarking, Performance Goals, and Performance Indicators

Occasionally an institution will internally set performance goals or targets and call them *benchmarks*. While this approach does specify metrics or performance levels toward which a unit wishes to aim, it reflects "operations management" or "corporate management" styles of an older nature than the current business understandings of *benchmarking* (Zairi, 1996a, pp. 479-480). H. James Harrington, in discussing businesses' 1990s *benchmarking* craze, warns that true *benchmarking* is not just goal setting. "Often, knowing just how bad you are has a negative impact on the organization, causing its people to give up trying unless the organization understands why its processes are performing at a lower level . . .. Don't set *benchmarks*, do *benchmarking*" (Zaire, 1996b, p. xvii). Albert Einstein seemed to support this understanding when he said: "We cannot solve problems with the same thinking we had when we created the problems" (p.v).

At one point, Alstete defines *benchmarking* as "the use of competitive data to measure effectiveness, set goals, and improve processes" (1995, p.7). Despite his focus on measurement and data, Alstete insists, "*benchmarking* does not mean comparing numbers for simply obtaining information on the performance of an organization or difference between two organizations" (p.19). This effort is better captured, he says, by the term "performance indicators," which he describes as indices for comparing the quality and performance among peers over time. As noted in a previous section, Appleby, in contrast, does not distinguish at all between *metric benchmarks* and "performance indicators." This lack of agreement in the definitions of terms leads to confusion.

> The distinction between competitive analysis of data and the *benchmarking* of practices is an important one, and one that can be easily overlooked in light of the natural desire to "see where we stand," and to "find out how we stack up." *Process benchmarking* can help to discover why some institutions are especially successful on particular dimensions of institutional performance and to identify what an institution can do to improve its own processes (Borden & Banta, 1994, p.56).

In American higher education literature, the prevalent understanding of "performance indicators" is Alstete's interpretation as indices for comparing performance among peers. Additionally, performance indicators can be used to measure "achievement against a desired objective" (Gaither, Nedwek, & Neal, 1994, p.6). According to Gaither, by 1994 eighteen states had developed indicator systems with which to hold higher education "accountable." These indicator systems have been tied to "performance funding" by legislatures in Tennessee, South Carolina, and other states. As states have tended to copy others, many have developed a common set of performance indicators in order to address common problems (p.6). The significant difference between these indicators and *metric benchmarks* that should be noted is this: *Performance indicators* are usually <u>determined externally</u> by some entity that wishes to measure quality and thus hold higher education institutions accountable. *Metric benchmarks* are measures <u>discovered</u> during the *benchmarking* comparison process that help identify performance gaps and draw attention to areas that may be further understood by using *process benchmarking*. *Benchmarking* can be used, however, to add validity and reliability to performance indicators (Sandor, 1997).

Any one of these interpretations and perhaps others as well may be in the mind of someone who recommends *benchmarking* as a good idea for higher education. The next

section further clarifies distinct interpretations of *benchmarking* by reviewing consultants who offer services to facilitate these distinct interpretations within higher education.

Benchmarking **Consultants**

There are two contemporary consultants who are well known for offering *benchmarking* services to institutions of higher education. These are the American Productivity and Quality Center and Educational *Benchmarking*, Inc.

American Productivity and Quality Center

The American Productivity and Quality Center (APQC) opened in 1977 as the American Productivity Center, a non-profit organization with the mission of increasing productivity in U. S. companies. Fortune 1000 company leaders, union heads, and senior government officials comprised its board of directors. In 1987 the APQC facilitated the creation and design of the Malcolm Baldrige National Quality Award. In 1992 APQC formed the International *Benchmarking* Clearinghouse to help managers employ *benchmarking* following its evolution as a means of breakthrough improvement in business operations (APQC, 9/8/2001, APQC History).

In 1996 APQC invited Peter Ewell to serve as a subject matter consultant in a *consortial benchmarking* study for identifying and disseminating information regarding best practices in measuring institutional performance outcomes. The APQC subsidiary Institute for Education Best Practices continues to facilitate *benchmarking* studies for educational institutions (Banta, 1998).

APQC discusses *benchmarking* as "the process of identifying, sharing, and using knowledge and best practices." According to APQC, the greatest pitfall for inexperienced *benchmarkers* is to believe that after they have discovered the best-

performance *metric benchmark* they should go home and use their own creative resources to meet or beat that metric. More experienced *benchmarkers* realize that their purpose is to discover how that best practice is accomplished. The question, they say, is not how high did the pole-vaulter jump but how did he jump that high? "*Benchmarking* is commonly misperceived as simply number crunching, site briefings and industrial tourism, copying, spying, or espionage. In no way quick and easy, *benchmarking* is actually an ongoing process" (APQC, 9/8/2001, What is *Benchmarking*?). Because *benchmarking*, however beneficial, is not quick and easy, APQC will, for a fee, shepherd a multiclient group with the same *benchmarking* focus through the entire process. For an additional fee APQC consultants will help a client apply the *benchmarking* findings to its own institution.

Educational *Benchmarking*, Inc.

Educational *Benchmarking*, Inc. (EBI) is a for-profit consulting business that provides *benchmarking* services to institutions of higher education. Glenn Detrick and Joseph Pica, Ed. D., formed EBI in 1994 as an outgrowth of discussions at the annual meeting of the Big Ten MBA Program Managers (EBI, 9/9/2001). They have since served a market among educators who need "practical tools to evaluate performance, initiate change, and sustain continuous improvement" (AAHE, 2000).

EBI focuses primarily on the *metric* understanding of *benchmarking*. They provide a client with a report comparing its own performance and process measures with those of six peer/competitor institutions of the client's choice among those in EBI's database. Data is summarized in a way to maintain the confidentiality of each institution's information while allowing the client to determine where it stands relative to

the six institutions of interest. EBI constructs and administers the surveys, maintains the databases, and reports the summarized data as requested. Its current work encompasses management education, college and university housing, teacher education, college and university unions, engineering education, Greek life, nursing education, and high schools. Since 1998 EBI has been moving into conducting and analyzing satisfaction surveys among various faculty and student groups (EBI, 2001).

As institutions of higher education experience outside pressures to *benchmark*, they are hiring such professionals to "do the legwork." While this eliminates the time-consuming task of designing and conducting one's own research, it precludes the institution from becoming the "learning organization" envisioned by *benchmarking* pioneers (Senge, 1990). Thus to continue quality improvements in this way, an institution must continue to hire these consultants.

The growing number of these consultants' clients is evidence that these services are in demand. The next section discusses the products of these *benchmarking* efforts as vehicles for change and accountability and poses some questions that need to be answered regarding their use.

Contemporary Functions of *Benchmarking*

The preceding review of the literature has documented that there is much confusion of understanding when the term *benchmarking* is used. The many different definitions of *benchmarking* in the minds of various audiences make clear communication among different constituencies almost impossible. This is an enormous and largely unrecognized problem that is exacerbated by the lack of literature that clearly addresses the confusion. As noted, most articles about *benchmarking* address the topic as

if their definition is the only one. Nevertheless *benchmarking* continues to be recommended as a useful tool. *Benchmarking* is advocated in business as a vehicle for change. It has been recently recommended as a vehicle for accountability in higher education.

Benchmarking and Change

Dr. Carla O'Dell, President of the International *Benchmarking* Clearinghouse, said, "*benchmarking* is an alliance between partners to share information on processes and measures that will stimulate innovative practices and improve performance. A process of finding and implementing best practices, *benchmarking* accelerates the rate of improvement by providing real world models and realistic improvement goals" (Cavanagh, 9/7/2000). According to James Cavanagh effective *benchmarking* is a prerequisite for implementing meaningful positive change.

Motivating change can be difficult and usually requires a considerable length of time. Establishing a sense of urgency is a necessary first step (Conner, 1995; Quality Management Division of the American Society for Quality, 1999). *Benchmarking* promotes a climate for change in three ways. First, it results in identifying performance gaps that can create dissatisfaction and a desire to change. Second, it involves seeking and understanding best practices so it helps one learn what and how to change. Third, it results in knowing what others have already done so it provides a realistic and achievable picture of the future (Codling, p.19).

First, while not representing the primary purpose of *process benchmarking* as discussed above, identifying *benchmarking metrics* does serve the purpose of highlighting where performance gaps exist between *benchmarking* partners. These data

may come from a number of databases that have been developed and can be useful as 'tip of the iceberg' indicators to alert an institution where to begin its *process benchmarking* efforts (Codling, 1998, p.7). Recognition of a gap may be enough within a competitive organization to create a desire for change and to motivate the pursuit of *process benchmarking*. Rowley and Sherman acknowledge that "there is much going on throughout the world of higher education that can provide exceptional examples for college and university leaders and planners as to what they can do to improve their own campuses, as well as provide guidance as to how to get things done" (2001, p.282).

This guidance is *benchmarking's* second aid to a climate of change. Following up the awareness of a performance gap with *process benchmarking* informs the *benchmarking* partners of how that gap occurred. One understands one's *benchmarking* partner's and one's own processes well enough to analyze where differences exist. Equally important, one understands one's own processes well enough to understand if and how the other's methods can be incorporated into one's own organizational culture.

Third, *benchmarking* aids change since one is assured that the performance to which one aspires is in fact possible because someone else has already achieved it. This sense of realistic hope is motivational.

Benchmarking **and Accountability**

Cubulka and Derlin, in 1995, "noted that performance reporting, a common accountability strategy, 'has not been integrated into [a] coherent and well integrated educational policy system'" (Kuchapski, p.186). Comparing one's performance with others, however, has a long history in higher education. As early as 1906 Carnegie listed forty-five colleges that were worth emulating, so the idea of comparing and learning from

the best is not new (Rudolph, 1977). If *benchmarking* is defined as learning from the best, how is it to be understood as an accountability measure for higher education today?

That *benchmarking* is increasing in popularity or at least is becoming necessary for institutions of higher education is evidenced by the growth of EBI and APQC. However, there are those who criticize outsourcing one's *benchmarking* initiatives. "When process owners are not given the opportunity to become involved and participate in planning and implementing changes, the change management effort is compromised because of a probable lack of buy-in by those affected by the change and by a lack of synergy in being able to formulate the best possible solution for improving the way work is done" (American Society for Quality, 1999, p.109).

Besides this lack of buy-in, Sylvia Codling expresses another limitation of hiring a third party to "do the *benchmarking* for you." She compares it to the saying that "if you give a man a fish you feed him for a day, but if you teach a man to fish, you feed him for life." Long-term benefits and success come only from teaching one's own people to *benchmark* (1998, pp. 86-87). Peter Senge refers to this as a benefit of becoming a "learning organization" (1990).

Another key to the success of *benchmarking* as a long-term program, according to Codling, is having a common language and methodology throughout an organization. "If the situation arises where everyone is able to 'do *benchmarking*' in any way they please, activity will be haphazard and lead only to patchy benefits" (1998, p. 85).

As higher education is increasingly called upon to *benchmark* it is necessary to address these concerns. There is another concern. "Higher education represents for many a central site for keeping alive the tension between market values and those values

representative of civil society that cannot be measured in narrow commercial terms but are crucial to a substantive democracy" (Aronowitz & Giroux, p. 332). Do the continuous quality improvement roots of *benchmarking,* which emphasize both increasing customer value and eliminating waste in order to increase profits (American Society for Quality, 1999), exacerbate the tension between market values and other values of the academy in a civil society?

Chapter Summary

The survey of literature in this chapter illuminates the many different understandings of *benchmarking* held within the business community and suggests the resulting confusion. It also suggests possible difficulties as *benchmarking* is mandated by external governing boards as an accountability measure for colleges and universities. This study sought to discover and examine interpretations of *benchmarking* held by different constituencies within higher education and investigate their applicability for change and accountability. The next chapter will describe the methodology employed in this investigation.

CHAPTER 3

METHODOLOGY

Benchmarking is in an inchoate stage in the State of Georgia. It has been demonstrated that there is much confusion when the term *benchmarking* is used. The literature has also suggested that merely "hiring out" one's *benchmarking* effort will not accomplish the learning necessary to benefit as intended. The people inside an institution who actually do the work must understand and be involved in the *benchmarking* project in order for meaningful and long-term benefits to be obtained. In order for a State's efforts to achieve meaningful benefits then, it is crucial to determine if those within the academy share the same understanding of *benchmarking* as advocates outside of the academy who urge *benchmarking* as a means of accountability and improvement. It is also useful to discover insider or emic views of the various cultures involved in calls for *benchmarking* since constituencies must clearly understand similarities and differences in cultures in order to adapt another's best practices.

Design of the Study

This study was an attempt to discover the understandings of *benchmarking* and its relationship to accountability held by various constituencies within a large research university and its related governing system (hereafter designated the Governing Board). It included an effort to compare these understandings of *benchmarking* with understandings and uses of *benchmarking* as it is practiced in the business community. A Research I university (hereafter designated State University), as classified by the

Carnegie Commission (1973), was chosen because it contains the broadest possible representation of constituencies among administration, faculty, and staff, and because it enjoys significant stature in its relationship to the Governing Board.

The researcher chose in-depth interviews with key contributors among administrators, faculty, and staff at State University and the Governing Board in order to discover what was known and felt about the process and value of *benchmarking* as an accountability practice. "The long interview is one of the most powerful methods in the qualitative armory. For certain descriptive and analytical purposes, no instrument of inquiry is more revealing" (McCracken, 1988, p.9).

Interview Protocol

The researcher used a semi-structured, open-ended interview process to focus attention on the participants' understandings of *benchmarking*. "Open-ended techniques . . . are designed to encourage the important observation or interviewing categories to emerge as the project unfolds . . . [and they allow a] more holistic and exploratory" approach to a topic (Rossman & Rallis, 1998, p. 119).

Questions on the interview protocol [Appendix B] were divided into three areas to seek the interviewees' perceptions of the purpose, the process, and the results of *benchmarking*. Global questions at the end of each interview asked the participants to address generally the positive aspects as well as the challenges of *benchmarking* and their perceptions of its future use in higher education.

Sample Selection

Within the Governing Board key administrators were selected who had knowledge of the inception of the *benchmarking* project within the State. Key

representatives also were sought to broadly represent State University. Since it is impossible to understand a large research university as a single culture, James Downey's conception of the university was useful as a framework for this investigation. Downey depicted the university as "three simultaneous incarnations in one. It is corporation, collegium, and community" (1995, p.4). The corporation is the legal and economic component of the university. Its hierarchical structure is capped with a board that delegates authority to designated officers. It comprises the financial, personnel, and resource management functions of the institution. The collegium is, in Downey's words, "the complex network of assumptions, traditions, protocols, relations, and structures within the university which permit the professoriate to control and conduct the academic affairs of the institution" (p.6). The collegium is where the concept of academic freedom resides. The community, then, is all the constituencies that fill the remaining space. The community includes the physical infrastructure, the range of services, and the professional diversity that comprise the culture and "ground in democratic perspective the elitisms inherent in the corporation and the collegium" (Downey, p.8).

In consultation with several experienced researchers in higher education and using Downey's model, the researcher decided to use purposeful sampling to select as interviewees three key representatives from within each of four groups: the Governing Board, and the university administration (the Corporation), the faculty (the Collegium), and the university community (the Community) at State University. The three representatives from each of these four categories were sought with the following characteristics in mind

:

- Each person was aware of *benchmarking* to some degree.
- Each person had policy-making or decision-making responsibilities.
- Each person represented a different segment of the category being considered so that the category was as broadly sampled as possible.

The researcher selected three representatives of the Governing Board who were directly involved in the initiation of the State's *benchmarking* project. One of these was a Governing Board member and business CEO whose use of *benchmarking* in the private sector influenced his favoring it in higher education. The other two were Governing Board administrators who were responsible for influencing the design and implementation of the State's *benchmarking* effort.

The three State University Corporation representatives were chosen to represent the presidential, financial, and research sectors of the administration of that institution. Collegium representatives were chosen from among faculty for their knowledge of administration, instruction, and strategic planning. To most broadly represent the University Community, key individuals within student affairs, physical plant administration, and alumni relations were selected. The resulting twelve candidates were invited by letter or e-mail to participate in tape-recorded interviews with the researcher. Each one accepted. Because of the time constraints on the participants most interviews lasted 30 to 45 minutes with the longest being 50 minutes. Permission to implement this investigation was obtained from the Institutional Review Board of the Human Subjects Office of the University of Georgia and each participant signed the requisite consent form.

One interview was conducted by telephone. To conduct the other interviews the researcher traveled to the office of the interviewee. Each interview was audio taped and then transcribed verbatim. Transcripts were distinguished only by coded identities in order to maintain the participants' anonymity. Member checks containing quotations from his or her transcript were mailed to each participant for their review. Eight of the twelve were returned. Most of those expressed concern that the style of their conversations be edited for greater fluency and they were allowed that opportunity. None altered the content of their original statements.

Data Analysis

The researcher analyzed the interview transcriptions using a word processor. Data analysis occurred in two phases. During the first phase the researcher repeatedly read the transcripts of the interviews as the data was being collected. She coded tentative categories as they began to emerge from the accumulating interviews. Coffey & Atkinson suggest that a beginning code list can be derived from key variables and concepts in one's theoretical or conceptual framework or from the "foreshadowed research questions that inspired the research project" (1996, p. 32). The researcher created such an initial list [Appendix D] and arranged participants' representative comments within those categories and other emerging categories. One goal which informed the selection of categories was to analyze the similarities and the differences among understandings of *benchmarking* revealed by the participants and those of business as revealed by the literature and the two higher education *benchmarking* consultants APQC and EBI.

The second phase, after the data was collected from all twelve interviews, involved segmenting the categories and interpreting the data. Data analysis is a process of "sorting, categorizing, grouping, and regrouping the data into piles or 'chunks' that are meaningful" (Rossman & Rallis, 1998, p. 172). According to Merriam (1988) determining categories involves two types of thinking, both convergent and divergent.

> *Convergence* is determining what things fit together –which pieces of data converge on a single category or theme. *Divergence* is the task of fleshing out the categories once they have been developed. . . . all items in a single category ought to be similar. . . . 'differences among categories ought to be bold and clear' (pp. 143-135).

The researcher kept an audit trail throughout this investigation. She also created analytic memos of ideas that emerged as the research and data analysis proceeded. The researcher used a process management matrix [Appendix C] to keep track of the progress of requesting, conducting and transcribing interviews with each participant. This tool also helped assure that all participants received a thank you and a member check opportunity and that all who requested one received an executive summary of the results.

Assumptions of the Study

The following assumptions underlie this research.

1. Qualitative research is a well-defined, rigorous, systematic methodology for investigating "social or human problem[s]" (Creswell, 1998, p. 15).
2. The researcher is the "key instrument" (Bogdan & Biklen, 1982, p.27) in qualitative research and can be "responsive to the context . . . [and] can process

data immediately, can clarify and summarize as the study evolves . ." (Merriam, 1988, p.19).

3. The participants well represented a wide cross-section of the various constituencies pertinent to the topic under investigation and they were honest and open in their responses during the interview process.

Limitations of the Study

The limitations of this study are inherent in the choice of the qualitative methodology. The following issues are addressed in the literature pertaining to this research design.

Reliability. Reliability in qualitative research does not mean that another researcher gets the same results, but rather that the results obtained "are consistent and dependable" (Merriam, 1988, p. 172).

Validity. "The qualitative researcher is interested in perspectives rather than truth per se . . .. Judging the validity or truth of a study rests upon the investigator's showing 'that he or she has represented those multiple constructions [of the interviewees] adequately . . . [and] the reconstructions . . . that have been arrived at via the inquiry are credible to the constructors of the original multiple realities" (Lincoln & Guba, 1985, p. 296, as quoted in Merriam, 1988, p. 168).

Subjectivity. The researcher "must constantly confront his or her own opinions and prejudices with the data" (Bogdan & Biklen, 1998, p.34). Therefore the researcher constantly tries to guard against her own prejudices by keeping detailed field notes including reflections on her own biases.

Generalizability. In qualitative research "the relationship between the particular and the generic is of a different order from that between a sample and a population" (Coffey & Atkinson, 1996, p. 163). One does not assert that the local settings studied "are representative of wider populations . . . [however] in developing and refining, or indeed creating, concepts we aim – as we have suggested – to transcend the local and the particular. . . . The generalizing we engage in should always remain firmly grounded in the empirical details of the local" (Coffey & Atkinson, 1996, p. 163).

Chapter Summary

The researcher conducted a general qualitative study to investigate the understandings of *benchmarking* and its relationship to accountability that are held by the external governing board and those within various constituencies within the university. The researcher selected in-depth interviews with key representatives of the Governing Board and representatives of the Corporation, the Collegium and the Community within State University to reveal a broad representation of these understandings. Interview data were analyzed using the constant comparative method. In the next chapter the researcher presents the findings of this study.

CHAPTER 4

FINDINGS

Chapter 4 presents the findings of this research illustrated by selected quotations from twelve interviews conducted with decision makers in higher education. Their quotations are grouped into the six theme areas identified below which emerged during the research. The chapter summary recaps briefly these six salient themes.

The purpose of this study was to investigate the understandings of *benchmarking* and its relationship to accountability that are held by the external governing board and those within various constituencies of the university. Interviews conducted with three individuals from each of the Governing Board, the Corporation, the Collegium, and the Community, as operationally defined earlier, of a large research university were analyzed by the constant comparison method to reveal the understandings of *benchmarking* held by these individuals. During the interviews the researcher addressed understandings of the purpose, the process, and the results of *benchmarking* in the mind of the interviewees.

Segmenting of the data during analysis revealed six broad themes within the information shared by the participants. These themes were their definitions of *benchmarking*, their beliefs about where *benchmarking* is useful, their perspectives on the role of communication in the *benchmarking* process, their concerns about concentrating *benchmarking* efforts in order to be effective, their awareness of the need to calibrate *benchmarking* data for it to be meaningful, and their perceptions of barriers to effective

benchmarking. The following sections contain the major responses of the twelve participants organized within the aforementioned themes.

Definitions of *Benchmarking*

Definitions here flow from the twelve interviewees who served as the research sample in this investigation. When defining the term *benchmarking*, one of the participants in this research described exactly the *process* definition of *benchmarking* (as described in Chapter 2) that was the understanding advocated by Robert Camp in conjunction with its successful use at Xerox. This individual was a member of the Governing Board whose background was in business and industry so his definition could be viewed as the emic perspective. It is quoted below:

> [To *benchmark*] is to compare different activities, functions, and processes to get a quantitative evaluation on how you start comparing yourself to the best in the field, and that is in a certain category, endeavor, or function, breaking that down to the lowest possible common denominator so that you're able to compare apples to apples. I think you have to define what's best in order to do that. Make sure that you are comparing yourself against the best that there is. . . . You can break it down into that function as it relates to a parameter that defines performance, whether it is dollars or time or processes or some level of efficiency. A lot of people use a dollar of sales per employee, or square feet per manufacturing, or some parameter that is definable, but it has to be quantitative. It can't be qualitative.. . . People [in industry] saw this as, "I didn't realize I was able to do better in this particular field or in this particular area", and then they got to meet their counterpart, who was doing the same thing and doing it better. Between this exchange and transfer of information, the whole process views [were improved].

Another member of the Governing Board acknowledged industry as the source of *benchmarking* and identified it as being results oriented:

> We have gotten the process and concept of *benchmarking* from industry [which] has done this for several years . . .. And in fact industry has said that this would be a good thing for institutions of higher education to do as well . . .. I think that business does this a fair amount, where they compare their performance on selected dimensions with others of a like industry. That is what the term means to me really--, the comparison of certain performance dimensions or indicators . . . with those of similar industry applications . . .. We were always results oriented.

All but one of the participants saw *benchmarking* as primarily a quantitative comparison with other institutions that were identified as one's peers. Their statements reflected the *metric benchmarking* definitions from Chapter 2, however they did not include the *process benchmarking* aspect of learning from one's peers or aspirational institutions how they had achieved their exemplary performance. The following excerpts are representative. "[*Benchmarking* is] the deriving of quantitative indicators, various performance indicators, from other institutions so as to measure the progress of this institution against them." "In general *benchmarking* to me means [providing] a point of reference against which you can measure how well . . . your profession or program or your institution is doing . . .. It's a form of measuring progress." One person added:

> My conception of *benchmarking* means the establishment of a national peer group of institutions or comparators . . .. Then one contrasts the performance of the target institution . . . to the peer group institutions, or comparative group, on a number of specifically identified indicators.

Another individual characterized *benchmarking* as a comparison of one's institutional performance on a chosen quantitative measure against a normative range established by statistically analyzing data on the same measure for a group of peer institutions rather than against individual institutional data for those peers. The following four individuals spoke of *benchmarking* as a way to measure progress toward goals set within one's own institution with or without an external reference to the performance of peers. One said, "To me [*benchmarking*] simply means goals, particularly step-by-step smaller goals on the way to achieving a larger goal." Another shared that: "To me [*benchmarking*] is identifying criteria or factors against which you are going to measure

yourself, against yourself and against other institutions, that are hopefully going to tell you if you are making progress toward your goals." One interviewee stated:

> My understanding of *benchmarking* is the way that an institution views itself both internally and externally among its peer institutions and the way it sets specific goals . . . constantly working towards an internal goal but at the same time looking at external institutions and seeing where [it] compares with peers.

Another said:

> My understanding of *benchmarking* is [that] we have this trajectory that we have planned for ourselves . . . and how we are going to measure our progress through that trajectory of the strategic plan . . . [but] we are going to have to set benchmarks against peer institutions that we have identified that we want to be like or we want to surpass . . ..

One individual from the State University Community identified *benchmarking* as observing other institutions' processes for accomplishing certain activities rather than metrics and then copying those activities in a way adapted to one's own institution.

In summary, one individual fully expressed the definition of *process benchmarking* as it is understood in its industry applications. Eleven of the twelve understood *benchmarking* to be primarily a quantitative comparison of specific indicators against those of other institutions or in one case against the normative range of data from other institutions. A total of four of those interviewed from the Corporation and Collegium of State University mentioned goals set internally within the institution. Three of these stated that the goals should be set with external comparator institutions as the reference. One individual was primarily involved with adapting methods used by other institutions rather than being concerned with comparing quantitative performance indicators. All of the twelve referred to their interpretations as understandings of *benchmarking*. These data illustrate the statement in Chapter 2 that while various

advocates may have a clear conception of their own definitions, the term *benchmarking* suffers from a lack of clarity and consistency of understanding.

Where *Benchmarking* is Useful

The data revealed several dimensions in which the participants considered *benchmarking* to be useful. These included common sense approaches, thoughtful planning procedures, allocation of resources, reality-checks with peers, and information sources.

Two among the Collegium participants viewed *benchmarking* as almost another name for common sense. Their statements reveal this point of view. One said, "I am not a disciple of *benchmarking*, except in a common sensical way, where you use data to inform decision-making, and you try to gather as much data as you can." To the other, "My understanding of the *benchmarking* idea is–, is common sense. You set up a benchmark, or a goal, and then you have benchmarks along the way to gage your progress towards the goal . . .."

The majority of the participants acknowledged the role of *benchmarking* as a way of accomplishing thoughtful planning. The following excerpts are representative. According to one participant from the Collegium, "People are becoming more aware of the need for a thoughtful planning process, which is all we are talking about eventually the way I am defining *benchmarking*." Another shared the following understanding:

> I think *benchmarking* is very important in anything that you do. It is really telling you how effective you are in what you are doing, and it enables you then to adjust your course, adjust priorities that you set for yourself.

Several participants acknowledged the role of *benchmarking* in the allocation of resources. Two representative statements follow:

> I think [*benchmarking* is] helping us get a handle on where we are using our resources and showing us where we can also perhaps save resources. [It helps identify] how we can allocate resources to places that are of the greatest need, that are institutional priorities, and helps other people understand where the resources are. So I think [*benchmarking*] serves a very useful purpose.
>
> In the budget process . . . *benchmarking* is a big part of the decision. It may not be so much the final point of allocating resources, but in the discussion about resource needs, faculty needs, and performance in terms of students taught, degrees awarded, teaching loads, all of those kinds of things, *benchmarking* can be very important as you look at peers across the country.

Other interviewees recognized the role that *benchmarking* plays in serving as a reality-check for gauging one's progress. The following quotations are illustrative of these perspectives:

> Of course we have been slowly making our way up the ladder in the university system. I think we are pretty good right now, not where we need to be, but we are still moving in the right direction, so it is no longer sufficient to compare ourselves [regionally]. We want to compare ourselves nationally.
>
> Issues of accountability are really elevated for all the units when you have a *benchmarking* survey, because it is very easy for them to look and say here is where we are, here is where we were, and here is where our peers are. The data collection somehow becomes more than data collection. It becomes meaningful.
>
> [Without *benchmarking*] you run the risk of not knowing where you are with respect to your peers, and therefore not knowing what you should be doing. And even though you are trying to do your best, it may not be apparent to you where you stand.

One representative of the State University Community viewed *benchmarking* as an ideal source of information for his operations. "I do think that having the opportunity to benchmark or to share, compare, you know . . . has been gravy. I mean that is where you learn. That is how you learn to do this better."

Summarizing then, all of the participants saw *benchmarking,* as they each defined it, to be a useful tool for some purpose. Most of them perceived it to be helpful for informing but not determining their planning activities and allocating resources. One saw

benchmarking as a ready source of ideas that he could incorporate into his responsibilities. Several saw it as a useful reality-check for one's perception of one's own progress toward excellence. Two mentioned that *benchmarking* could be seen as another word for common sense, although these two had different definitions of the term *benchmarking*. One of the participants expressed his exuberance for *benchmarking* as follows: "The goal is to have the whole nation do things like this, but we are far from that."

The Role of Communication in B*enchmarking*

During the process of segmenting the data, the researcher discovered communication emerging as a major theme within the transcripts. Data supporting this theme subdivided into eight distinct categories. These focused on communication pertaining to the following topics: indicators and peers, the purpose of a *benchmarking* project, the results of a *benchmarking* project, stakeholders, trust issues, motivating change, closing a *benchmarking* gap, and the limitations of *benchmarking*.

Interviewees expressed both positive and negative aspects of communication that occurred before and after a *benchmarking* endeavor. Several participants in both the Corporation and the Collegium of State University stated that it was necessary to communicate with affected constituencies before a *benchmarking* project was undertaken. The following quotations from four individuals illustrate typical comments:

> In an institution of higher education [*benchmarking*] has to be a shared responsibility I think. For example, if you are trying to evaluate [how] a particular college at [State University] stacks up against other units around the country, then there has to be a shared understanding and discussion and agreement between say the Dean and the opinion leaders in that college as well as people in the Provost's office and . . . folks that work at a higher level.

> I would make sure that it was clear at the beginning what you were looking for in the design of the process, what the goal was, . . . how specific you were going to be, and [I would] do a lot of preplanning with the *benchmarking* process. Also, I think you want to do a good job of informing the internal campus community about why you are *benchmarking*, what the importance of it is, . . . [and] how it can be helpful, because then you would have a campus community that is committed to the process and working for performance towards the accountability.
>
> We started carefully. We started not by saying we are going to hit [a college] with [*benchmarking*] this year. We started by working with the Deans and saying these are the things that we think we need to do. How do you feel? And we all agreed on a process. When you agree on a process then it is pretty easy to put in place. . . . We have done it with them instead of to them and that is the important thing to me.
>
> [Planning for *benchmarking* in the strategic plan] was done way in advance, thinking about getting input from appropriate sources, particularly the various units of the University. The way we did it . . . was to [get input] from the bottom and . . . I think [that] is the way it should be done. . . . The whole University community should have had the feeling of inclusion, partnership.

The Collegium representative speaking in this last quotation also believed that communication was important in order to maintain the "separation of administrative . . . prerogatives and faculty prerogatives."

Communication regarding indicators and peers

It was important to Corporation and Collegium representatives that communication be employed to arrive at a consensus of the indicators to be used in the *benchmarking* project. The following quotation represents this perspective: "You get a consensus that these [indicators] are really important; this will really give us insight as to generally where we stand, where we are weak, and what our opportunities are to improve."

A representative of the Corporation also viewed the selection of one's peers to be "a very important decision" and expressed the desirability of communication " to achieve agreement on who [our peers] are really."

Communicating the purpose of a *benchmarking* project

The statements in the section above demonstrate concern for communicating with all stakeholders in the planning of a *benchmarking* project including during the selection of performance indicators and comparator institutions. Other participants emphasized the importance of communicating the purpose of a *benchmarking* effort. Several from both the Governing Board and the Corporation stated that the use of *benchmarking* findings should be formative rather than summative. "[In managing] limited resources . . . the temptation is to be punitive, but that is not the solution. That is not the institutional solution because that can backfire on you." The following two interviewees reveal similar concerns:

> Well, you need to be very, very careful. You never want to try and use *benchmarking* as a punishment or a recrimination against people. . . . I think what you need to do is convince everybody that we are doing this for the betterment of the institution and themselves. . . . I think people need to understand that and be convinced that it is better to help the entire organization as you look to see whether you can [improve] the organization . . .. You will get best results if people don't feel threatened because once they are threatened they are able to put up innumerable roadblocks in both the identification process and certainly in the implementation or corrective action process.

> Once people found out that [*benchmarking*] was not going to be punitive the whole process views got better. People [in industry] saw this as: I didn't realize I was able to better myself in this particular field or in this particular arena . . . and then they got to meet their counterpart who was doing the same thing [better] and [engage in a] face-to-face exchange and transfer of information.

Communicating the results of a *benchmarking* project

Representatives from the Governing Board, the Corporation, and the Collegium expressed the concern that the results of any *benchmarking* effort should be communicated to all affected parties. One stated, "I think the results need to be meaningful and therefore lead to constructive action in that area." Another shared that "it is important to translate what we are about to people who are sitting in the Board or state legislature to help them understand that [we] are managing resources appropriately, financially and others." Several individuals expressed the following similar comments:

> Lack of interest is a problem . . . even in the case of administrators . . . to take this kind of stuff seriously. The problem is these . . . kinds of documents [and] plans that involve *benchmarking* tend to go up on the shelf and get forgotten until there is some kind of requirement.

> Well, I think one of the biggest challenges with any study or report that you do is to make sure that it just doesn't turn out to be something that sits on a shelf. . . . Somehow what you [must] communicate to the larger community [is] that . . . something either visible or tangible . . . came out of it. The [*benchmarking*] process that you go through, the performance measure, [must] mean something . . .. Particularly in a public institution you [must] communicate that there is a purpose to it, and I think not only a purpose for the people that are at the institutional level but [a purpose] you communicate . . . to the community.

> [Our *benchmarking* study] has been very useful. . . . We have used it for formal presentations and informal presentations, to the [Governing Board], to legislators, to the Governor and the Governor's staff. We have used it in discussions with university system presidents and alumni and administrators. So, yes, it has been a very, very useful undertaking.

Communicating with stakeholders

Several participants emphasized that after the initial *benchmarking* project was completed it continued to be important to communicate with stakeholders. A representative of the State University Corporation stated that "to make it comfortable for

us we need see what [those requiring *benchmarking*] are going to continue to do, and what we are going to continue to do, and communicate that."

Representatives of the Governing Board also expressed the importance of stakeholder communication in the *benchmarking* process but the focus of their concerns was different. One indicated that it was important to know and meet the expectations of various stakeholders or to educate them as to why you should not. "These are the typical things that a legislator will ask you," he went on to say. "The media is going to ask you for this, so to say let's not worry about [this indicator] is just being totally naïve."

Communication and trust

A few participants mentioned communication in the context of trust. One believed a particular leader "has [established] a broad sense of openness and trust [so that stakeholders] are willing and able to come forward with things that they see that need to be added or modified." Another in speaking of *benchmarking* and budgeting said, "This is a very open process that we all want to make highly credible. [Communication right at the beginning] is helping people really understand."

Communication and motivating change

A major communication aspect of *benchmarking* identified by members of all four groups of interviewees was the perceived ability to motivate change by publishing and discussing the results of a *benchmarking* project. One mentioned that *benchmarking* "elevates awareness." Another said that "if you see a big gap [you need to] make sure that you put in whatever is required to fix it." A State University Corporation representative said *benchmarking* "gives [Deans] a handle on what is going on in their own departments . . . and ways of measuring their own effectiveness." Another

administrator stated "*benchmarking* data can *lead* to change because advocates within the institutions will use it to press the case for resources coming to their areas." Some other representative remarks from several participants regarding the motivational aspect of *benchmarking* follow:

> [*Benchmarking*] can focus our attention on specific issues and specific areas that we need to improve, but the conscious decision has to be made that that is something that we need to improve. *Benchmarking* can provide us with a level of understanding we wouldn't otherwise have, but as far as action on the basis of [that] understanding, that's for the [Governing Board] to determine.
>
> [State University] came out extremely well on their benchmark data from across the country. But even in that, even when you are ranking well, if the . . . *benchmarking* analysis is done well you get ideas and suggestions of how you can improve, how you can be more effective. So it can be very, very valuable. The value [of *benchmarking*] depends, in my view, on the perception that people have when they are using it. To some it is a threat; to some it is an opportunity. Our view here is [that] we see it as an opportunity. We see it as a way to keep pushing things forward, raising the bar all the time. B*enchmarking* helps you do that.
>
> [In *benchmarking*] you are looking at somebody else. Let's just take an example of something that we are in the process of doing. . . . There is a whole new field of bio-informatics . . . and nobody is really ahead of the race. The race is just starting . . . so we are going to have to benchmark . . . to know how we are progressing. One of the first things we have to benchmark is how much [in] resources are we putting in . . .. This is an expensive enterprise . . . and [if] we are trying to compete . . . we are going to [have to] compare . . . how much they are investing versus how much we are investing.
>
> You've got to really get a comparison based on *benchmarking* with your peer group to see where you really stand. [You] see how you stand [and] you would logically follow up on those areas where you were deficient or less than average. Again, it's got peaks and valleys, but over the long haul if you find yourself routinely falling below the norm for certain categories you are not getting the job done the way the world would assume you should.
>
> There is always going to be *benchmarking* of some sort. It changes the mindset. I think it is important to do. Regardless of the technique or specific tools it changes the mindset. It gets the people thinking: we just can't sit here in this small pond and be a big fish in this small pond. We've got to look beyond. . . . We've got to aspire to be the best we can and do the best we can with the resources we have.

Communication and closing a b*enchmarking* gap

One of the primary benefits of *process benchmarking* defined in Chapter 2 as it is practiced in industry is the sharing of process information among *benchmarking* partners to learn how the superior performance is achieved. This is accomplished by visits and exchange of information between process owners in both units. This communication then allows process owners to be in the best position to adapt the exemplary practices to their own environment.

The participants in this research also alluded to the role of communication in bridging a perceived gap discovered in a *benchmarking* project. One suggested that in response to a gap, "You can find out who is in your group. You can find out where they stand in your group and get on the phone." Most representatives within the Collegium and Community of State University, however, indicated that shared decision making within the University was the way to address corrective decisions rather than contacting the exemplary institution. The following comments illustrate this conviction:

> I think to if you see a big gap part of [the response] is just making sure that you put in [place] whatever it is supposed to be. . . . I think there is a willingness to learn from colleagues, which is good in a higher education community, particularly since so many people are only in a role these days and don't necessarily stay in institutions for twenty years. We have a lot of people who have been at many institutions so you can see many different ways [of doing things] and you have an opportunity to [share] a lot of their experiences [so that] we all can benefit.

> [*Benchmarking*] tells you that you are behind [but] the strategies to catch up . . . may be totally unrelated to *benchmarking*. *Benchmarking* has given you some information on where you stand with respect to another institution. It may be impossible to catch up because the data don't [tell you how to] do this. It may be possible to catch up but . . . the tactics and strategies that are involved in catching up . . . may be totally unrelated to . . . the character of the institution where you work. . . . [How to catch up] would be a collective decision that would involve a lot of senior people in the University as well as a lot of faculty. . . . Some of the data that you really want to get you simply can't get in any way other than through personal relationships.

> Well, [bridging a gap could occur] in a variety of ways, sometimes not just financial resources. Sometimes it may be organizational or structural issues. Sometimes it's just a matter of [changing] internal policy. It's not always just a matter of resources but probably most of the time it is a matter of resources [or] at least how to parcel those resources. And in an institution of higher education [that] has to be a shared responsibility I think.

Communicating the limitations of b*enchmarking*

Interviewees in all four of the research groups expressed concern that the limitations of *benchmarking* methodology be clearly stated and understood by all involved in any project, particularly if the stakes were high. One representative of the Corporation stated: "There is a point at which, you know, you can't quantify [decision making]." Another expressed that it was very important to understand "the story behind the numbers." A representative of the Community urged that he "needed flexibility" in decision making beyond data metrics. A representative of the Collegium expressed his concern as avoiding "a straight jacket" mentality. The following excerpts reflect the flavor of other concerns regarding the limitations of *benchmarking*:

> How do you find a comparator for a College of Arts and Sciences in an institution of this size? . . . You could break it down by departments . . . but how do you use *benchmarking* data with the College of Arts and Sciences here to argue for additional resources coming to the entire college based upon *benchmarking* data. There are no two colleges of arts and sciences in the United States that are exactly alike.

> You want to be focusing on those who are significantly below or significantly above [a performance level] and that is the issue. Because if you focus your attention on everyone who is below or above, you will have about ten times the amount of focus and work that you have to do. . . . This was something that I felt very strongly about. Let's not look a number; let's look at a range.

> I think for anybody who has had a good classroom experience with a professor [communicating what we do] is a matter of consulting and sort of reinvoking those feelings, because a lot of people do remember what happened [to them]. Communicating, I think, [and] getting people on campus and letting people see what we are doing [is important], and if it is a matter of reporting something to a

> group of people [then] get them here so they feel and see and get there hands on what education is about.

In summary, communication emerged as a significant theme among the interviewees' comments. Members of the Corporation and Collegium expressed the importance of communicating to all constituencies both the purpose of any *benchmarking* endeavor and the selection process for peers and indicators. Most of those interviewed wanted to have input into those processes. Members of the Governing Board and the Corporation expressed concern that the *benchmarking* primarily be formative rather than summative and that the results be used to communicate to those involved how they could improve. A Governing Board representative said that one must communicate with stakeholders and acknowledge their expectations of a *benchmarking* project. Several participants emphasized the need for communication to establish trust in any *benchmarking* undertaking. Many participants insisted that the results of any *benchmarking* project could be useful to motivate change within an institution, but they felt that deciding how to bridge a gap revealed by the *benchmarking* data was the prerogative of shared decision-making within the institution. All felt that the limitations of *benchmarking* should be clearly communicated and understood by all involved in the effort.

Some groups have formalized the *benchmarking* communication process in ways that meet their specific needs. One representative of the Community shared that "we formalized this [professional organization] and we have two meetings a year where we entirely devote that time to doing . . . you know I call it sharing but I guess . . . really what we are doing is *benchmarking*." Another shared the following:

> One of the best meetings that I go to each year is [comprised] of . . . the vice presidents of all the large southeastern public institutions . . .. We are just a loosely knit group of folks who meet once a year for a few days and share issues, directions, and ideas, and *benchmarking* has been on the agenda the last three years in terms of what institutions are attempting to do, where they are seeing some issues with it, what they are finding to be successful, and what they are struggling with in that regard.

Perhaps the need for communication in a *benchmarking* project was best expressed by a member of the Governing Board who stated that, "in order to really understand *benchmarking* you have to spend literally hours talking about it."

Negative Aspects of *Benchmarking* Communication

Not all the participants were sanguine about the results of communication in a *benchmarking* project. One representative of the Governing Board expressed a "lack of understanding of the complexities of the process" which led some who perceived themselves as stakeholders to have a sense that they "already . . . know the answers" and which made effective communication difficult. A member of the University Community group expressed another twist on this phenomenon in the following statement:

> You can have an inaccurate assessment of people's successes. [For example] . . . at [State University] most of these alumni, for better or worse, just think that this is *the* place. [Nothing] is going to be done any better anywhere. 'I don't want to hear how they are doing it in Indiana because that is Indiana. We are here; we are [State University]!' You know [there are] . . . some parts of the *benchmarking* people just don't want to accept.

This same individual expressed another concern that sometimes *benchmarking* comparisons were communicated without distinguishing the differences between the missions of the two different comparators.

Others among the University Corporation and Community felt that their efforts to communicate about items like indicator and peer selection were only "selectively" heard by those initiating a particular *benchmarking* project. When such input was not used, it

led participants to perceive that wrong criteria had been chosen for conducting the project and damaged their enthusiasm for subsequent *benchmarking* efforts.

Both a Collegium and a Community member expressed the opinion that pessimism arises when the output of previous studies are only given "lip service" or when no documented improvement is obtained. An interesting dilemma was conveyed in the following statement by one representative of the University Corporation:

> You use a process like *benchmarking*, and particularly . . . when [you] use it in an environment [where] by definition it's supposed to impact resource allocation, and every Dean comes in, assuming they all do a good job, having identified their benchmark issue, their benchmark peers, and . . . [what] they then need to do to achieve this benchmark and that benchmark. Nobody talks about this but you sit there [with] a finite amount of resources and every [college's] . . . aspirations . . . and you don't have the resources to move all twelve colleges along the continuum to where they want to get. What benchmark do you then use to say who the winners are? . . . It is a tough decision because what you have done is you have . . . potentially held out the promise that people are going to benefit. . . . That's how you sell *benchmarking,* that it's a good thing, that it's going to be to your eventual benefit. Well, it could be to your eventual benefit, however . . . at some point, I think, hard decisions are going to have to be made that we can't be in the top ten in everything.

The Need to Concentrate a *Benchmarking* Project

The concern in the last sentence of the previous quotation was mirrored in comments made by all twelve research participants revealing a belief that any successful *benchmarking* project should concentrate its focus in order to be effective. Four main concerns motivated this desire for concentration. Some suggested that a well-defined need should precede a *benchmarking* effort. Many perceived that *benchmarking* is an expensive undertaking and so should be limited in scope. Most believed that effective accountability could only occur on a limited number of indicators. Representatives of all four groups of interviewees stated that the major benefit of *benchmarking* was in its longitudinal application and so it needed a concentrated focus.

Concentrating on well-defined needs

In order to achieve what a Governing Board representative characterized as a "results oriented" *benchmarking* project, members of State University's Corporation and Community said it was necessary to focus on the institution's priorities. The following comments illustrate their opinions:

> I think when you know more about what it is you do, and you know where your money is going and how it is invested, and that there is some pay off to it, you have the opportunity of gaining more resources. . . . I think [*benchmarking* is] helping us get a handle on where we are using our resources, where we can perhaps save resources, [and] how we can allocate resources to places that are of the greatest need, that are institutional priorities . . ..

> I asked him two questions. One is what is it you want to accomplish with this? . . . What do you feel you are missing? Number two, who is doing it the best in the United States? . . . Is it South Carolina? Is it Texas? Is it Michigan? Is it at Cal State? Who is doing a really good . . . program? [Benchmark there.]

Concentrating to maximize impact of resources

The majority of participants perceived *benchmarking* to be a resource-intensive undertaking. Most considered that *benchmarking* is "very expensive [if] done well" and that "it's going to be expensive [because] . . . it takes a lot of time and effort from a lot of people if it is done right." The following acknowledgements are representative:

> [*Benchmarking*] is humongously [expensive] . . .. If you want . . . to do *benchmarking* well and consistently it is going to take a number of people, maybe a couple of people working almost full time in an institution of my size. . . . The collection of data on the indicators, analysis and reporting of data [from this project]. . . took a long time.

> It is incredibly resource intensive . . .. Think about the amount of time it takes to gather the data that the external forces may want in a format that is appropriate to them . . .. The paper work that my staff are called upon to do has absolutely reached a point of being outrageous and *benchmarking* is just one more thing . . ..

> Now here is the rub. One of these indicators . . . will be the number of staff or administrative people you have and that is always a negative. . . . What is your ratio of faculty to non-faculty? Our prime business is teaching students. No

> questions asked. Well, the act of measurement will change the actual thing being measured because you won't be able to do a solid study of this kind across 34 institutions and across the system office . . . [without] a whole bunch more personnel, time, and other resources. And guess what? That is going to change the faculty to non-faculty ratio. So the act of measurement would change the measurement.

Because of extensive resource requirements to do *benchmarking* well, most of the interviewees agreed that one should limit the number of indicators to be investigated. The following comment capsulates this need to focus one's *benchmarking* study:

> If . . . one wants to do this well, you need to cut out some of those nice-to-know kinds of things and just focus on key elements of progress and real accountability. Otherwise, as I said, you would be spending millions of dollars, millions on just this kind of stuff.

Those who did not think it was expensive were defining *benchmarking* as primarily comparing one's metrics in a specific area with similar data from other institutions that was perceived as being easily available in existing databases.

<u>Concentrating on a few accountability indicators</u>

A third reason for focusing attention in a *benchmarking* study was the idea of accountability itself. A representative of the Governing Board made a clear distinction between *benchmarking* and accountability:

> *Benchmarking* is a comparison of how well you are performing on the basis of . . . a number of specific indicators in comparison to a national peer group as we talked about before. So there may be some very, very direct relationships between accountability and *benchmarking*, but very frequently there is *no* relationship between the parameters of *benchmarking* and accountability. . . . Accountability is a question of to whom are you accountable. . . . My concern both about the use of *benchmarking* as an accountability measure and anything else regarding accountability is that the complexities that lead to that final number . . . are understood.

Others made explicit the use of fewer indicators. In discussing *benchmarking* in the budgeting process of an institution one member of the Corporation said, "We also

didn't say we are going to give you ten measures or ten benchmarks. We said we are going to give two or three overall and we are going to gradually build more of them into the process." Others indicated similar opinions to limit the number of indicators as the following quotations demonstrate:

> One of the flaws of our *benchmarking* study is that we used too many comparators. We had 44 different indicators. That is too many; that's too many! We had something in the vicinity of 10,000 data points. . . . We could have had a better study with fewer indicators and a more detailed analysis of those fewer indicators. However, to satisfy the large number of stakeholders you were almost inevitably driven to 44 indicators.

> Even the 30 [indicators] that we developed, when we went into subcategories and tables, [yielded] 100 different measures that someone could look at, and that says too much. I mean, if you do this every year who has the time to sift through that? And after sifting though that, the analysis is not the thing. I mean, it is what you are going to do about it. So [if] . . . you have a stack that high, you can't do much with it. You need to get some key points, [some] . . . selection of measures.

A member of the Governing Board implied the identification of fewer indicators when he advocated identifying and concentrating on essentials:

> I think we have sort of forced the university to at least identify what's necessary in the teaching process, what are the hands-on real resources required to teach somebody [and] what are the ancillary things that are not really necessary but provide some other kind of function. You definitely need a classroom; you definitely need equipment and definitely need teachers. You need administrators and you need all the other staff functions that go with it. And if you do, how much do you really need to do the teaching process? Like everything else . . . for some reason things outside that, things that are not absolutely essential to the process itself, tend to grow and tend to grow faster than what is necessary . . .. In the educational system . . . [identifying the essentials] is perhaps what the *benchmarking* was successful in doing.

The following excerpt best articulates the argument that was expressed among all four groups of interviewees for limiting the number of indicators chosen for a *benchmarking* project:

> I think these things like *benchmarking*, accountability, find their roots in a lot of reforms that have been proposed before and have been unsuccessful for a variety

> of reasons. And one of those reasons historically [is] . . . they promise too much too quickly. They try to analyze too much data, to make too many decisions, year-in and year-out, and they die of their own weight. I think we have become more sophisticated and more understanding of the decision-making process and that the decision could affect what kind of data you need. I think we have greater sophistication now in gathering data with the computer technology [and] we can now analyze a lot of data more quickly than we did 30 years ago . . .. [But] despite the rhetoric, [past reforms] pretty much flopped because [they] couldn't achieve all that [they] promised and all the system said it needed to be successful. [They] bit off more than they could chew [and] crashed and burned.

Concentrating to continue longitudinal efforts

Members of all four groups indicated that *benchmarking* efforts, like other accountability measures, were most useful if they had a longitudinal component to allow an institution to measure its progress toward a goal over time. A member of the Corporation shared that "if it is just something for short term, it is really not as helpful as it might be, I think." As the previous long quotation indicated, if *benchmarking* efforts are going to be sustained over years, they must concentrate on a few key indicators. The following quotations confirm this view:

> I think [this *benchmarking*] is a good approach because we really set out to do a thorough study. . . . In the next phase we immediately knew that [the number of indicators] was too much and came down to fourteen. We still felt it was too much and then ultimately we got the four. Now this is manageable. I believe that . . . once these things are set in place and we [resolve] some methodological issues . . . this will continue.

> We will be looking . . . to see how we are improving on a national basis, so it is going to wind up being a longitudinal venture as well. It is just not the *benchmarking* where we stood in the world in 1999. We will probably do something in the world in 2004-2005 and see where we stand in the world 2004-2005. A longitudinal analysis.

> I think [a limited number of key benchmarks] serve a very useful purpose. I think they need to be written into our vocabulary for everybody in all of the things we are doing. I just don't think we can afford any more to do anything that we don't know what the outcome is or what the success is or how we measure it.

In summary, all four groups of interviewees expressed the need to concentrate *benchmarking* efforts on a limited number of indicators. Some indicated that one should concentrate on a well-defined need using those indicators that were key to the mission or purpose of the institution or unit being studied. Most perceived *benchmarking* to be very resource intensive and so felt that focused effort on a few well-chosen indicators would be most productive. Many perceived that it was essential to be held accountable for only a few things that could be identified as essentials. A few from each group saw *benchmarking* as most beneficial if it were longitudinal and therefore recommended that focus on a few indicators was best if continued studies were to be undertaken.

The Need to Calibrate *Benchmarking* Inquiries

Having communicated with all stakeholders and concentrated a *benchmarking* effort on a few key indicators, there is still a further need to calibrate that *benchmarking* effort according to the interviewees in this research study. All but one of the twelve participants mentioned the issue of "apples to apples" versus "apples to oranges" comparisons. Other data difficulties were suggested as well as concerns about appropriately identifying which processes contribute to which measured outcomes. Finally several of those interviewed warned that data must be analyzed in the context of the original objective of the *benchmarking* effort.

Apples to apples comparisons

Participants in all of the four groups expressed difficulties in being sure one is comparing "apples to apples" in the data. One suggested that the procedure be "totally standardized" to avoid difficulties. Another elaborated as follows:

> [Our professional organization} publishes . . . the Strategic Assessment Model, SAM, which . . . [about half of] the member institutions use. . . . It employs

> yardstick benchmarks based on a lot of the standard accounting procedures and entries from the chart of accounts for college and university bookkeeping, so it's not that difficult to pull the information out, apply it to the model, and then turn the crank and see where [a member] stands with respect to their peers. . . . They tried to come up with a number of terms [that were] readily accessible in the normal bookkeeping procedures at universities.

The statements below represent another group of concerns that data truly be comparable. The first is from a representative of the University Corporation. The second is from a member of the Governing Board:

> I think that maybe one of the critical issues with *benchmarking* is to make sure that the parameters of what you are asking for are very clear, that they are very well defined, and [that the] data [or] statistics that come back are meaningful to an institution. Otherwise what can happen is that . . . an institution may look much superior on paper to another institution but it is simply a matter of the way they reported their numbers.
>
> In order to perform meaningful *benchmarking* you need to have data from institution A, that is based on the same parameters as data that is collected from institutions B,C,D,E,F,G,H. You also need institutions B,C,D,E,F,G, and H to have similar characteristics to institution A, if they are to form a meaningful peer/comparator group.

Despite the apparent awareness expressed above regarding difficulties in assuring truly comparative data, other participants in each group expressed continuing uncertainty about such comparisons. The excerpts below from several participants illustrate this concern:

> In the discussion about resource needs, faculty needs, performance in terms of students taught, degrees awarded, teaching loads, all of those kinds of things, *benchmarking* can be very important as you look at peers across the country. One of the problems is, I think, finding useful and relevant comparative data.
>
> Very few [institutions across the nation] do this sort of thing . . . and even if they do it, they do it sporadically, so it is really not an apples to apples comparison. For example, we have in the University System a student satisfaction survey done [about] five years ago and we've just done another one. We have very concrete results on several dimensions. If we took that and tried to overlay that onto something that some institution in another state had done, it just wouldn't work . . . because they are not doing that same thing. They are not using the same

> instrument; they are not doing it with the same frequency; some of them are not doing it at all.
>
> The request for information elicited different types of responses from different institutions, so some of the numbers that would come back on a preliminary draft for [that study] really didn't reflect what we were doing here. . . . It was almost like comparing apples and oranges sometimes when you would look at the final number.
>
> Sometimes even when people think they are measuring apples and apples they are really not. So *benchmarking* by looking at comparisons [in my area of responsibility] just from the distance may not be a fair assessment. And it also could work the other way. It could make us look like we are really good when we are really not.

Others expressed concern that "one number conveys very little" and that "the level of detail is very important." One such example follows:

> The total numbers sometimes can be deceiving. That is when you would have to get down to breaking down the whole number into what has happened in biological sciences versus physical sciences versus mathematical sciences or . . . sciences versus humanities or sciences versus applied programs like agriculture and forestry and the business school. . . . And then the solution would depend on where the shortcomings are found.

Another expressed the need to verify data where summative decisions are involved:

> Create it, develop it, collect it, analyze it, present it, and typically in that kind of process, those who are then using *benchmarking* as a means of decision making [and] resource allocation . . . don't have time to verify that data through their own analysis. You take what is presented to you. Of course, you always hope that everybody is being intellectually honest and forthright in the data that they present to you, but sometimes the decisions are weighty ones. You're making resource allocations; you are making judgments as to how well someone is performing relative to other people and indirectly and sometimes directly affecting people's careers. So you know, looking at the data is important.

Some participants expressed significant concern about the validity of using quantitative measures to assess "people business" issues. The following comments articulate those concerns:

> Well, think back to the early '90s and TQM. Everybody thought that this was something that was going to happen on campuses; [they] saw this whole quality movement occurring, continuous quality, all the teams getting together, and all

> these things happening on the campuses. Well, what is happening now, you know? It was a fad. Some people really bought into it and it can be very valuable. It is a business model. When it hit part of academics it ran into a wall because again you are dealing with people and not just retail sales numbers. So I think we are going to find that *benchmarking* will eventually not necessarily fade out, but I think that people will get a better understanding of apples and oranges over time.
>
> I always have to sort of pause whenever you get into the questions of measurement and accountability because at the heart of all this is a learning process that is very, very subjective and very individualized. And I think there is always going to be a little bit of mystery at the bottom of the box from all of this. But at the same time it is important to translate what we are about to people who are sitting in the Board or state legislatures to help them understand that you are managing resources appropriately, financially and others.

While acknowledging concerns like those just quoted, the two participants quoted below express the belief that such accountability measuring is possible:

> We have not historically done very much on a consistent, objective, rationale basis to do accountability studies and . . . those kinds of evaluations. I think higher education historically has been reluctant to do that. I think so many in higher education have hidden behind the mantra that you can't really measure, for example good teaching, and you can't measure this, you can't measure that.
>
> I think *benchmarking* helps to identify what the process is and also what results are expected, and then you can compare within the process where you haven't done the best job compared to everybody else. Now it's a little tougher in the human environment than it is in the manufacturing environment because there are so many other non-concrete variables, but it still, I think, has merit to it.

Other data difficulties

Interviewees also expressed other possible difficulties that might arise with data during a *benchmarking* project. One expressed the need and expectation that everyone "keep good records" to facilitate the process. Another stated that however good they were, these records were not always in comparable format from one institution to another. An example of this concern follows:

> Another issue would be if . . . a person would like to know the SAT average for the entire student body. We couldn't give that to them. . . . We don't sort data in

> that way . . . and most institutions don't, and in some ways that is a much more telling figure, I think, than simply what the average SAT score is of the 4000 or so freshman who formally entered here this last year.

Some were concerned about issues of measurement difficulties beyond the measuring of "people processes" already discussed. One member of the University Community felt that his success in *benchmarking* was aided by the fact that he was not competing with those to whom he was comparing and that competition could hinder their openness in sharing data. Another from the Governing Board, who was quoted earlier, mentioned that the very act of measuring some data would require more personnel and thus change those data values. A few were concerned that high stakes could cause institutions to "spin" their data in their most favorable light. The following comments express other perceived complexities: "Well again getting back to [our professional organization] model there were probably 50 or 60 different categories that were proposed, but not all were used. Some of them were too difficult to measure; others were kind of compromises."

> [Some] love to be given simplistic approaches to resolving budget issues. . . . For [*benchmarking*] to work out it would have to be a lot more complex than it really is unfortunately. . . . There are so many [important] variables; we currently have an apples to oranges rather than an apples to apples [comparison]. I think that is where . . . *benchmarking* has fallen apart over the years and has made it very, very difficult to get accurate data.

<u>Difficulties identifying processes with outcomes</u>

A few interviewees articulated a difficulty in using outcome measures to assess processes because of the uncertainty of exactly which inputs or processes were responsible for which specific outcomes. One representative of the Governing Board stated that both were important:

> This is a key point, that we divided [our measures] into input indicators, process indicators, output indicators, and outcome indicators. And everyone who is in this field believes that [it is] clear [that] this is the way the field is going, output and outcome. Well, actually outcome, the quality, the benefit of the programs, activities and so on. What are you really doing? That kind of thing. However, it is naive to believe that [inputs and processes] are not important.

Need to analyze the numbers in the context of the stated objectives

Several representatives of both the Governing Board and the University Corporation stated the need to analyze collected data in the context of the originally stated objectives for the *benchmarking* study. One example follows:

> There is an argument that [funding should be decreased] . . . if institution X's measure of Y does not show improvement . . . between periods one and two . . .. But the argument can also be made diversely that once an analysis is conducted of why no improvement [was made] at that institution on that measure . . . between periods one and two and if the analysis indicates . . . there is insufficient funding, funding should be increased. So again, regardless of whether you are talking about accountability or *benchmarking*, once the numbers are in you still need to perform the analysis and perform that analysis in the context of what your objective is and in the context . . . of whom you are accountable to. . . . [In a political context] there is a continual uncertainty [to whom you are accountable]. . . . There are [many] stakeholders involved . . .. There is a host of people in organizations involved in making those decisions on analysis.

A member of the University Community offered this illustration of how data had to be analyzed in the context of the mission under which it was created:

> [A barrier to *benchmarking*] is when people not in the business, or not in the Alumni business, try to compare things without really asking a question. Say someone received two . . . alumni magazines, [one from their undergraduate institution and one from State University, their graduate institution]. . . . And they decide they will call . . . and complain . . . and say, you know, this undergraduate institution magazine is so much better. Okay? Now my question is, what is the purpose or what is the mission statement . . . of the undergraduate institution magazine and of course, what is ours? . . . Are we doing what we set out to do? Is the undergraduate institution doing what they set out to do? . . .You know, you can't compare the two magazines unless you know more about the two magazines.

Summarizing then, many of the research participants expressed in various ways the need to carefully calibrate *benchmarking* data. Most expressed concerns they

characterized as "apples to apples" issues. Several identified other data difficulties and the uncertainty that is sometimes inherent in linking processes with outcomes. Finally, both Governing Board and University Corporation representatives cautioned that *benchmarking* data must be interpreted within the context of stated objectives. "This is why you have to explain the story behind the numbers," one said. Especially when *benchmarking* is being used to justify a policy change, participants warned that it was necessary to carefully investigate the reality behind the data. One member of the University Corporation implied the need for such *process benchmarking* in the following story:

> So many times when we think [that for] a particular indicator . . . the value of it is totally captured in the number we find that is not necessarily so. Just an example of tuition, comparing say our tuition to tuition of institute X, and their tuition . . . appears to be inordinately low in undergraduate studies. What we find out then [is] that another part of the story is that it is artificially low for other reasons. They don't have very many graduate assistantships. We deal with that here. We have a higher tuition but we have an awful lot of graduate assistantships, teaching assistants, research assistants, and such, so the numbers don't always tell the story. But I am sure you know that. That's a complicating factor in *benchmarking*. That's why those kinds of things, I think, . . . should cause us to be cautious. . . . I think if it is used properly, it is a good tool.

Other Barriers to *Benchmarking*

Participants in this research identified other barriers to *benchmarking* that generally could be categorized as fear of *benchmarking* or as inappropriateness of the method. The statement quoted below is representative of one of the various forms of fear expressed, the fear of comparison:

> Often times [these university officers] don't want to [benchmark] because . . . a lot of them are afraid that they're going to turn out not to be as good as they thought they were. But [without *benchmarking*] you run the risk of not knowing where you are with respect to your peers and therefore not knowing what you should be doing. Even though you are trying to do your best it my not be apparent to you where you stand.

Others within State University expressed concern over possible recrimination or loss of local control and articulated appropriate resistance to external decision makers:

> I think [*benchmarking*] can be useful to assist an institution in understanding about where they fall relative to others and to help them in their own decision-making. I don't believe it's enough of a science that legislatures and system officers ought to be making decisions based upon those results.
>
> The issue is near and dear to my heart; I don't know why. It has to do with separation of administrative prerogatives and faculty prerogatives. And again, talking about *benchmarking* as being related to the University, in my experience [one must] constantly, constantly keep . . . straight what administrative responsibilities are and what faculty responsibilities are. Because if that is not constantly kept straight, the administration will take authority for things that they do not have the authority to take.
>
> There is some fear that in [*benchmarking* for accountability and efficiency] that what we [in the University] are going to produce to the greater extent is sort of a corporate mentality in that we are evaluating everything and we're making decisions on the notion of the bottom line. And that is a danger you have. I think it is more perceived than real, but it is something that you have to be aware of and to conduct yourself cautiously.
>
> The negative aspect is you can have the [Governing Board] beat up on you because they are going to look at the data . . . and depending on what they want to do, they can use [it to be] punitive rather than to help you catch up with [an aspirational institution]. They can say, well, you are not performing. It is a dangerous game because the legislature and the [Governing Board] . . . have their own agenda and they can interpret things.

A representative of the Governing Board acknowledged this fear:

> There's a great fear that funding will be cut off. . . . It was sort of funny. If they found out that they were very good, [the fear was] people would tend not to want to give them any money because they were so good anyway, and if they were poor then they tended to think that maybe they would get a lot more money than they could rather than looking for more efficiencies within their own area. . . . I think that it is basically . . . just the idea that somebody is going to be looking over their shoulder. Some people tend to resent that. There is always an inherent fear of having to change. Everything's comfortable and they want to defend their turf.

The second general theme pertaining to barriers to effective *benchmarking* that emerged from the data was concern about inappropriateness of the method for the task to

which it is being applied. One member of the University Community suggested that "a barrier to good *benchmarking* is the inability to establish certain guidelines" because of unwillingness or inability to dictate uniformity. A representative of the Governing Board expressed the following concern:

> Well, I'll be honest. I believe that industry was a lot more open to [*benchmarking*] than the educational system is. And maybe there again it's because it is a lot easier [in industry] to identify the processes and to be able to find the [critical] factors that need to be identified in order to be able to benchmark.

A member of the University Corporation expressed concern about trying to run a "people focused" system "by the numbers:"

> Everything is about numbers and everything is about production. [For example in managed health care] Medicare determines the number of [doctor] visits that someone can have. It doesn't make a difference whether the person is better or not or is capable of being better. It is what some external operation says to . . . literally, objectively determine what is appropriate for each individual person. I think that those of us in the people business are really struggling with those kinds of issues today not only in education. [Sometimes] it comes down to justifying the number of staff that you have.

Most who expressed similar views agreed with another Corporation member that higher education "historically has been reluctant . . . [to do] very much on a consistent, objective, rationale basis to do accountability studies [and similar] kinds of evaluations."

Chapter Summary

The use of *benchmarking* in order to measure the performance of institutions of higher education has become prevalent in the last five years. Therefore it has become important to investigate perceptions of *benchmarking* held by those affected. Interviews with representatives of the external Governing Board and of three constituencies, the Corporation, the Collegium, and the Community, within State University revealed six areas of concern among those consulted. First, the interviews revealed that members of

these constituencies hold several different definitions of *benchmarking*. It is important to recognize these discrepancies to assure that any consideration of using *benchmarking* must begin with a clarification of what is intended.

Second, the interviews confirmed that many consider *benchmarking* to be useful for several purposes. Some considered it to be nearly synonymous with a common sense approach to decision-making and thoughtful planning. Others described *benchmarking* as providing a reality-check for gauging one's progress toward goals and expressed the desirability of resource allocation's being tied to *benchmarking* results. One specifically appreciated *benchmarking* as a way to learn.

The third theme that emerged from the data was a major emphasis on the importance of various aspects of communication during *benchmarking.* Participants felt overwhelmingly that stakeholders should be consulted regarding both the purposes and the results of any *benchmarking* effort, including the selection of peers and indicators. They also believed that trust was an important ingredient for *benchmarking* to be successful. Participants shared that motivating change or closing a gap discovered during a *benchmarking* project required thoughtful communication. Likewise, they expressed concern that the limitations of *benchmarking* as a methodology needed to be clearly understood and articulated by all involved.

A fourth consideration for the participants was that *benchmarking* efforts needed to be concentrated in order to be effective. They favored limiting the focus to a few indicators as the most beneficial way to use resources, to meet well-defined needs, and to assure the longitudinal component necessary for effective accountability and improvement.

A fifth concern expressed by all the participants was the need to carefully calibrate *benchmarking* investigations. Data, they said, needed to be precisely defined and analyzed within the stated objectives and context of the study to assure "apples to apples" comparisons.

A final pair of barriers to *benchmarking* expressed by some of the study's participants was the fear of losing local control over decision-making and a concern for the inappropriateness of *benchmarking* to evaluate a people-centered enterprise. In Chapter 5 the researcher will evaluate *benchmarking* in light of these data and will make some suggestions for its appropriate use in the future. She will also offer some suggestions for further research on this topic.

CHAPTER 5

CONCLUSIONS

This study involved in-depth interviews with twelve prominent leaders in higher education. Three were selected from each of four segments of the post-secondary educational community. Three constituent groups representing Downey's Corporation, Collegium and Community model of a university were identified within State University. The fourth group comprised representatives of the Governing Board of State University. The investigation was guided by the following research questions:

1. Do members of the university community share the same understandings of *benchmarking* as members of the business community?

2. Do the various participants understand each other when they plan or require *benchmarking*?

3. Do *benchmarking* efforts actually change anything within an institution?

4. Is *benchmarking* more appropriate to some sectors within the academy than others?

5. Is *benchmarking* a good fit as a tool for accountability in higher education?

"Times have changed for higher education, and there is a new climate wherein colleges and universities must regularly demonstrate that they are reliable stewards" (Middaugh, 2001, p.6). This declaration can be seen as a threat or as an opportunity as institutions of higher education face increasing demands for accountability. In a speech to a conference on "Accountability and Financial Support of Public Higher Education"

held at the University of Georgia, then Former Governor Zell Miller stated that, "higher education [needs] to take the lead on accountability for itself for although we have many constituencies, they tend not to ask the right questions" (2000). By investigating *benchmarking,* one of the tools in this demand for increasing accountability, the researcher sought to discover how that tool can be better tuned to fit both the needs of public stakeholders and of the academy itself. The participants in this study represent a broad spectrum of those currently involved in the accountability milieu. As such their understandings can illumine ways in which *benchmarking* can be employed to better benefit higher education, both for improvement and accountability.

Three basic recommendations emerge from this investigation. The first is that abundant, effective communication needs to occur among all stakeholders throughout every phase of any *benchmarking* effort. Secondly, any *benchmarking* project needs to be concentrated to assure effective use of resources and beneficial results. Finally, *benchmarking* processes must be carefully calibrated to produce significant data and useful findings. Each of these recommendations will be discussed in sections that follow.

Communication in *Benchmarking*

The first issue confirmed by this research is that there is no clear, universal definition of *benchmarking*. This alone is an unrecognized basis for confusion. Table 1 illustrates the variety of meanings of *benchmarking* discovered among the four groups of interviewees in this study. The asterisks indicate which of the four constituencies mentioned the various definitions of *benchmarking* represented in Chapter 2. Only one of the twelve interviewees fully described *process benchmarking* as it is understood in business and industry. He was a member of the Governing Board whose background is

in industry. It would seem that if he were conversing with any of the remaining eleven regarding *benchmarking*, there could be an unacknowledged disconnect in the conversation.

Table 1. Definitions of *Benchmarking* Revealed by the Four Constituencies

Definitions of *Benchmarking* (from Chapter 2)	**Governing Board**	**Corporation**	**Collegium**	**Community**
Process Benchmarking	*			*
Metric Benchmarking	*	*	*	*
Goals and Milestones		*	*	

Note: Only one each of the Governing Board and the Community mentioned definitions that compare with *process benchmarking*. Most interviewed mentioned *metric* type understandings of *benchmarking*. Four of the twelve interviewees mentioned goals in their definitions.

While several of the interviewees in this study acknowledged that *benchmarking* is a method that originated in industry, none except one of these articulated awareness that a major source of the effectiveness of *benchmarking* in industry is the practice of having process owners visit and confer with each other so the one desiring to improve is able to learn how the superior performer has achieved that performance. This is the learning component of *benchmarking* which grew out of TQM and which benefited Xerox so greatly in the 1980s. Alstete, who advocates *process benchmarking,* acknowledged that in 1995 published articles "continue to use the term *benchmarking* when it is marginally appropriate" (1995, p. 51).

If this learning component is the reason that business is recommending *benchmarking* to higher education, the use of *benchmarking* as it is currently being practiced in higher education is not reflecting this benefit. Instead the prevalent understanding of *benchmarking* expressed by those from all four constituencies in this

study was that of *metric benchmarking*. The metrics identified in a *benchmarking* study do identify where performance gaps exist between the *benchmarking* partners, but as Robert Camp argued, "one cannot determine why the gap exists from the metrics alone. Only the practices on which the metric is based will reveal why. The reverse is not always possible, and it could mislead or defeat the purpose of *benchmarking*" (Camp, 1989, pp. 4-6).

If participants agree that what they desire is only a study of where they measure themselves on some indicators relative to those they consider peers or aspirational comparators, then *metric benchmarking* is the appropriate definition of the effort. M*etric benchmarking* allows institutions to see if they are "reaching the mark" and allows them the challenge of internally reassessing their decisions regarding processes and allocation of resources to try to improve if they do not "measure up". It is an approach of internal decision-making with reference to external goals. According to this research occasionally this type of effort is informed by informal exchanges among colleagues from different institutions but it does not contain the rigorous, formalized *benchmarking* exchange that originally won *process benchmarking* its advocates.

An example of the need for much communication prior to undertaking a *benchmarking* project is found in contrasting EBI's and APQC's methods of facilitating such an undertaking. In a presentation to the AAHE Conference on Assessment in Charlotte, North Carolina, in June, 2000, EBI contrasted its client price for *benchmarking*, often less than $1000 they said, with Houston-based APQC's charge, which was said to be ten to twelve thousand dollars. What was not stated in that comparison was the vast difference in the *benchmarking* product each client was

purchasing. As described in Chapter 2, EBI provides an anonymous comparison between its client and several other institutions the client may choose from EBI's existing database. This is clearly *metric benchmarking*. In the Charlotte presentation EBI stated that it had future plans to share "best practices" by creating panels of the top 5% of performers in selected categories and having them share with groups how they attained their exemplary results (AAHE, 2000). In contrast, APQC facilitates teams of clients who meet to plan and conduct *process benchmarking* studies to seek and learn "best practices" in a common focus area. These studies include site visits. They last three to six months and expect about ten hours of participation per week from members of the *benchmarking* team (APQC, n.d., p.13). Consultants help tailor results to each participant's needs. Clearly these two *benchmarking* products are not comparable, as merely contrasting the cost of each might suggest.

The first recommendation of this study, which addresses the first two aforementioned research questions, follows from these observations. **When initiating a suggestion that *benchmarking* be employed for any purpose, clearly communicate with all stakeholders and participants in order to agree which definition of the term will apply while acknowledging its limitations, what the payoff will be, and how gaps will be addressed.**

Concentration in *Benchmarking*

Most of the participants in this research agreed that *benchmarking,* however they understood it, had the ability to motivate change. This motivational ability is one of the benefits most often cited by businesses regarding *benchmarking* applications. As stated in Chapter 2, "it results in identifying performance gaps that can create dissatisfaction

and a desire to change" (p. 27). The remaining two benefits from *process benchmarking*, the motivation of discovering how to change and of realizing that change is possible because of seeing real-world examples of its implementation, are not a part of *metric benchmarking*. Therefore if most leaders in higher education are employing *metric benchmarking* alone, they may not reap all of the rewards for motivating change that are credited to *benchmarking* by its business advocates. All of the participants in this study agreed, however, that *benchmarking* does help change the status quo. Thus one can answer the third research question affirmatively.

In order for it to be most effective, the research data indicate that *benchmarking* efforts be concentrated on just a few indicators that are judged to be the most important. In 1995 Babson College reported great benefits from conducting such a focused *benchmarking* study. Having selected business transactions processes as the greatest area of need, Babson concentrated on the registration process and was able to conduct real *generic benchmarking* with entities as diverse as hotels, Disney, and Chrysler Corp. Their success was reported as follows:

> "The *benchmarking* work (we have done) has helped us a great deal. We have learned where and what to avoid as we move along, how others have dealt with resistance along the way, how technology can be used to better enable what we are trying to do, and how to achieve a stronger customer focus" (Alstete, 1995, p.55).

This type of concentration facilitates the best use of resources both for achieving present benefits and for maintaining longitudinal accountability efforts. **Therefore, a second recommendation from this research is that any *benchmarking* effort be**

concentrated to address the greatest perceived needs thus utilizing resources most efficiently and assuring accountability for a few important indicators throughout a sustainable longitudinal effort.

Calibration in *Benchmarking*

A third major area of concern that emerged in this research was the need to carefully calibrate indicators during a *benchmarking* project. Eleven of the twelve research participants expressed awareness of "apples to apples" versus "apples to oranges" issues and one noted that related complexities are such that "in order to really understand *benchmarking* you have to spend literally hours talking about it" (p.54). Focusing on a few important indicators as recommended above can lessen the difficulties with obtaining truly comparative data. Relying on standardized data can also enhance the possibility of valid comparisons, but it was very important to the educators in this study that such a process not become a "straight jacket' that would diminish the effectiveness of their people-centered endeavors. Regarding research question four, the researcher discovered that the interviewees most comfortable with *benchmarking* were those involved with physical facilities, budgets, and research data. Those involved with teaching and student services were more cautious in its endorsement. Regardless of their apprehensions of the method, though, all participants expressed their reservations in the context of serving the greater good. Fairholm describes leadership excellence as including a value system that "defines this role in terms of service to others" (1998, p. 25). All of the participants in this study demonstrated a perception of their roles as serving others well. Recognition that others are motivated by a sincere desire to serve well could facilitate future discussions of the use of *benchmarking* in the academy.

Awareness of the need to calibrate *benchmarking* projects appears in the results of a literature search for best practices undertaken by the Pappas Consulting Group Inc. (2000), which conducted a Benchmarking Study of state institutions on behalf of the University System of Georgia. Among their findings they stated that performance indicators needed to have "internal and external credibility among all organizational stakeholders [and] . . . should be based on data that are valid and consistent and that can be verified by third parties when necessary" (Appendix A: p. 10) **The third recommendation resulting from this research is that participants carefully calibrate *benchmarking* indicators and interpret them in the context of clearly stated objectives to overcome inherent data difficulties.**

Summary of Recommendations

The three recommendations discussed above are illustrated in Figure 3 that presents the researcher's Recommended *Benchmarking* Change Model.

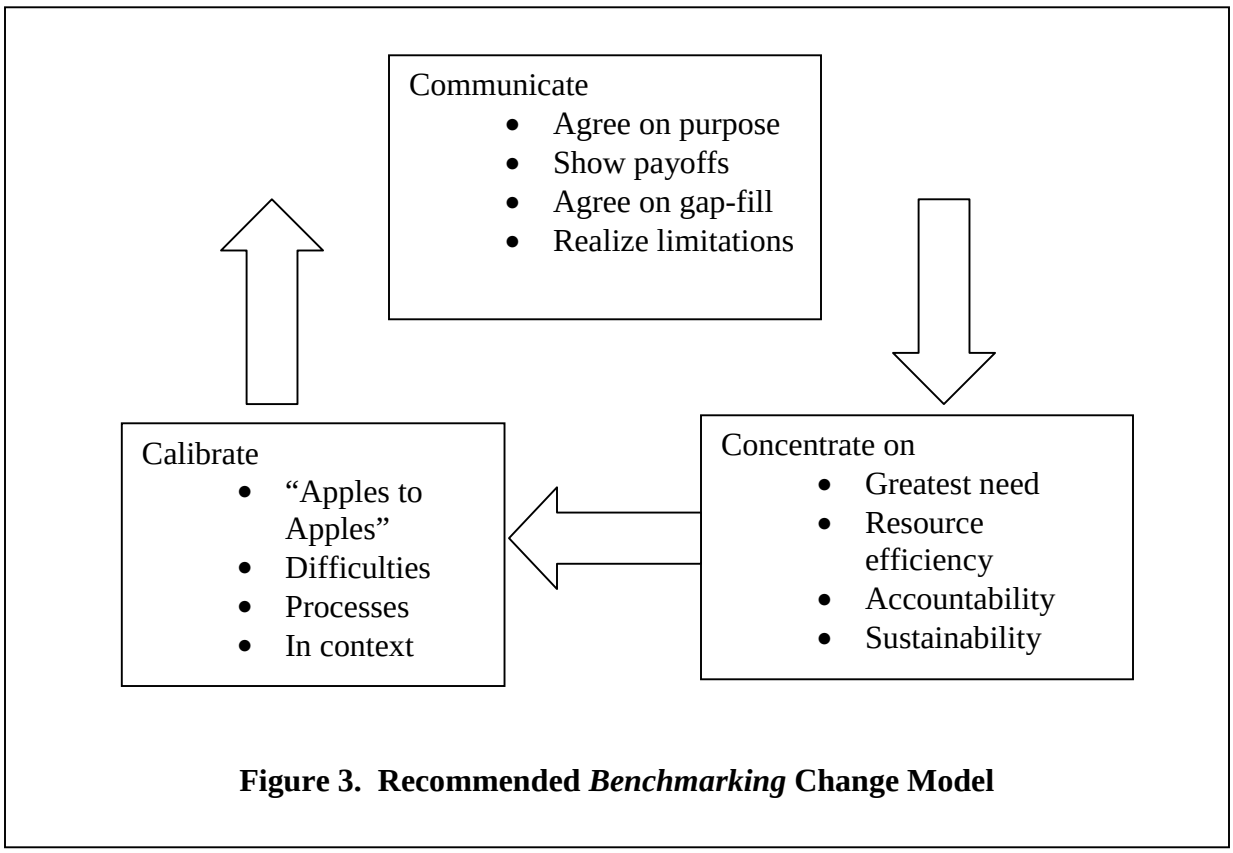

Figure 3. Recommended *Benchmarking* Change Model

" Writers from both inside and outside the academy will continue to be critical of an enterprise that refuses to respond to questions such as, Who is teaching what to whom, how well, and at what cost? If American higher education does not develop realistic an credible measures for responding to these issues, solutions will be externally imposed most likely they will be ill conceived and potentially destructive" (Middaugh, 2001, p.7). This research has attempted to address ways in which to make one such accountability measure, *benchmarking*, more realistic and credible.

Figure 3 illustrates *benchmarking* as a cyclical process. It should begin with communication among all stakeholders to understand the purpose and the intended benefits of a *benchmarking* project. This communication should anticipate how gaps that are revealed by the metric data will be addressed and should clearly articulate an understanding among all stakeholders of the limitations of the *benchmarking* process.

The second phase depicts the need to concentrate a *benchmarking* effort on areas of greatest perceived need. Focusing a *benchmarking* project on a few important indicators assures that process resources will not be wasted, that critical accountability factors will be addressed, and that *benchmarking* efforts can be sustained longitudinally to maximize their benefit.

The third issue illustrated in Figure 3 details the need to carefully calibrate the *benchmarking* process. As discussed in Chapter 4, "difficulties" include format incompatibilities and possible "spin". "Processes" indicate the uncertainty some interviewees articulated in clearly identifying which processes are responsible for which outcomes. "In context" highlights the concern of several participants that *benchmarking*

data be analyzed in the context of the mission and the originally stated objectives under which it was collected. Such calibration clarifies the data collection process and enhances the credibility of the results for all stakeholders. The clockwise arrows indicate the intentionally continuing nature of *benchmarking* as a method for change and improvement. To be of value the results of any *benchmarking* project must be communicated and must not just "sit on the shelf." Also, communication after an initial *benchmarking* project can be used to inform and direct the focus of the next *benchmarking* cycle.

Suggestions for Further Research

Little research has been conducted to evaluate the effectiveness of *benchmarking* in higher education. Stewart was able to validate that processes and measures from the East Tennessee State University's Continuous Improvement Key Process Relationship Matrix "can be used as a framework for implementing *benchmarking* for continuous improvement in higher education" (1996, p.iii). One might undertake a case study of the results of some longitudinal *benchmarking* effort to evaluate its effectiveness in an institutional setting. If uniformity of the definitions of *benchmarking* and control for extraneous variables could be assured, one might undertake a comparison among public institutions in several states of the impact of their *benchmarking* efforts on appropriations.

Final Comments

The aim of this research has been to address the issue of the usability of *benchmarking* in a higher education environment. Research question five, illustrated in

Figure 4, asks if *benchmarking* is a good fit as a tool for accountability in higher education.

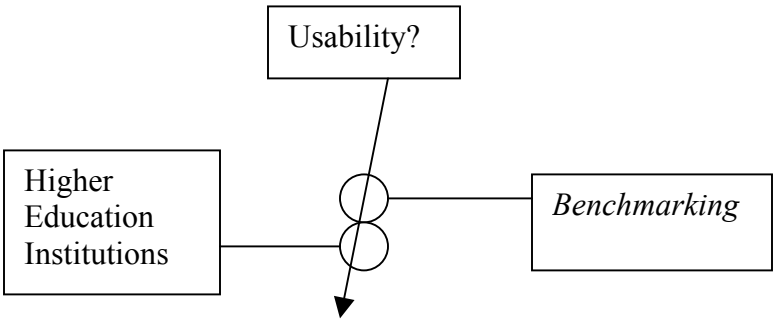

Figure 4. *Benchmarking's* Fit in Higher Education

Alan Peshkin states that as a class of insights, problem finding "is among the richest of all types of outcomes" (1993, p. 26) for qualitative research. The researcher has done this by illuminating weaknesses in *benchmarking* as it is currently employed in higher education. She has argued that the usability of *benchmarking* within higher education will be greatly enhanced for all stakeholders if the three recommendations displayed in Figure 3 are employed.

Further, the researcher has documented different perspectives among various stakeholders in the *benchmarking* debate. Ronald Simpson (2002) appraises these differences as follows: "The deep and abiding roles of higher education in American society are not well understood by most citizens. It is equally noteworthy that most governing boards in higher education are comprised largely of individuals whose backgrounds and values are more closely aligned with those of business and commerce

than they are with the academic world" (p.1). Simpson enumerates some of businesses' highest values as customer satisfaction, profit making, efficiency, and top-down management authority. He contrasts these with the significance higher education places on faculty expertise, a well-educated citizenry, effectiveness, and peer review. American society has benefited greatly from its view of higher education as a community of scholarship with a culture fundamentally different from that of the solid corporate foundation on which the nation also rests. Appreciation of these differences should not be lost. One must realize that these two constituencies represent two different historical legacies, values, and ways of doing things – that is, two different cultures.

According to Palomba and Banta (1999) any assessment effort should be preceded by explicitly stated outcomes or goals. This directive applies to *benchmarking* to assess higher education. As previously discussed, the cultural differences between business and higher education will necessitate extensive communication in order to reach agreement on the purpose for which any *benchmarking* assessment is undertaken. *Benchmarking*, a tool created within the business culture, cannot be applied to the higher education environment without an appreciation of those cultural differences and requisite dialogue regarding appropriate adaptations. This tension in higher education requires a balance between external demands for accountability and efficiency and internal concerns with improvement and effectiveness. Edward Simpson (2001) observed that: "accountability measures unilaterally imposed by federal and state authorities have rarely proven successful" (p.13). In the transcript of his opening remarks, then former Governor, now U.S. Senator Zell Miller (2000) urged that higher education itself "take the initiative to change ourselves" to prevent "the marketplace . . . [from doing] the job

for us (p.1). . . [and to prevent] boards with good intentions . . . [from] trying to micro-manage administration rather than wrestling with the larger policy questions(p.3). Miller asks: "What traditions and values of the academy should we try to save in the face of these broader changes [of increasing market pressure] and how do we do that?" (p.8).

"Education is largely an indivisible good, beneficial to society and the student simultaneously, and though each receives benefits the value received by the other is not diminished" (Alexander, 1996, p.90). The researcher suggests that higher education will benefit by listening to and taking seriously the business interests of society and acknowledging their interest in fiscal accountability for public higher education dollars. Alternatively, society will benefit by understanding that higher education is a complex human enterprise and national investment that far exceeds what can be easily measured by concrete assessment over fixed periods of time. As differences between the cultures of business and higher education are better understood, more trust will emerge between these two balancing social forces. The researcher sincerely hopes that insights gained here can help all stakeholders facilitate such a discussion.

REFERENCES

AAHE (American Association for Higher Education). (2000, June). Rising Expectations for Assessment (Program: AAHE Conference on Assessment in Charlotte, NC). Washington, DC: Author.

Alexander, K. (1996). The Value of an Education. In D. W. Brenemam, L. L. Leslie, & R. E. Anderson (Eds.), ASHE Reader on Finance in Higher Education. Needham Heights, MA: Simon & Schuster Custom Publishing.

Alstete, J. W. (1995). Benchmarking in Higher Education: Adapting Best Practices to Improve Quality. (ASHE-ERIC Higher Education Report No. 5). Washington, D.C.: The George Washington University Graduate School of Education and Human Development.

APQC (American Productivity & Quantity Center). (n.d.). Benchmarking in Education: Pure & Simple: A Quick Reference Guide to Benchmarking (corporate document). Houston, TX: American Productivity & Quantity Center Education Initiative.

APQC (American Productivity & Quantity Center). (1993). The Benchmarking Management Guide. Cambridge, MA: Productivity Press.

APQC (2000,October 8). About APQC. [On-line]. Available: http://www.apqc.org/about/

APQC (2001,August 23). The Benchmarking Code of Conduct. [On-line]. Available: http://www.apqc.org/free/conduct.cfm

APQC (2001,September 8). APQC History. [On-line]. Available: http://www.apqc.org/about/history/

APQC (2001,September 8). What is Benchmarking? [On-line]. Available: http://www.apqc.org/best/whatis.cfm

Aronowitz, S., & Giroux, H.A. (2000). The Corporate University and the Politics of Education. The Educational Forum ,64(4), 332-339.

ASQ (American Society for Quality). (1999). The Certified Quality Manager Handbook. Milwaukee, WI: ASQ Qualtiy Press.

Astin, A. (1991). Assessment for Excellence: the Philosophy and Practice of Assessment and Evaluation in Higher Education. New York: Macmillan.

Banta, T.W. (1998). Benchmarking in Assessment. Assessment Update,10(4), 3-4.

Birnbaum, R. (2000). Management fads in higher education: where they come from, what they do, why they fail. San Francisco: Jossey-Bass.

Board of Regents of the University System of Georgia. (2000, Spring). University System's Benchamrking Project Launched. The System Supplement: A Report of the Georgia Board of Regents,37(2). Atlanta, GA: Office of Media and Publications.

Bogdan, R. C., & Biklen, S. K. (1982). Qualitative Research for Education: An Introduction to Theory and Methods. Boston: Allyn and Bacon, Inc.

Bogdan, R. C., & Biklen, S. K. (1998). Qualitative Research in Education: An Introduction to Theory and Methods (3rd ed.). Boston: Allyn and Bacon, Inc.

Bogue, E. G., & Brown, W. (1982, November/December). Performance Incentives for State Colleges. Harvard Business Review, 123-128.

Bogue, E. G., & Saunders, R. L. (1992). The Evidence for Quality: Strengthening the Tests of Academic and Administrative Effectiveness. San Francisco: Jossey-Bass.

Borden, V.M.H., & Banta, T.W. (Eds.). (1994). Using Performance Indicators to Guide Strategic Decision Making. New Directions for Institutional Research, 84.

Burke, J.C., & Serban, A.M. (Eds.). (1998). Performance Funding for Public Higher Education: Fad or Trend?. New Directions for Institutional Research, 97. (From abstract [On-line] Available: http://www.wiley.com/Corporate/Website/Objects/Products/0,90049,105207,00.html)

Camp, R. C. (1989). Benchmarking: The Search for Industry Best Practices that Lead to Superior Performance. Milwaukee: American Society for Quality Control Quality Press.

Camp, R.C. (1995). Business Process Benchmarking: Finding and Implementing Best Practices. Milwaukee: American Society for Quality Control Quality Press.

Carnegie Commission on Higher Education. (1973). A classification of institutions of higher education. Berkeley, CA: Author.

Cavanagh, J.J. (2000,September 7). Special Focus Area: Benchmarking. [On-line]. Available: http://www.pr.doe.gov/dg61-3.html

CHEA (Council for Higher Education Accreditation) (2001,August 28). About CHEA. [On-line]. Available: http://www.CHEA.org/About/

Codling, S. (1995). Best Practice Benchmarking" A management guide. Brookfield, VT: Gower.

Codling, S. (1998). Benchmarking. Brookfield, VT: Gower.

Coffey, A., & Atkinson, P. (1996). Making Sense of Qualitative Data: Complementary Research Strategies. Thousand Oaks: Sage.

Conner, D.R. (1995). Managing at the Speed of Change: How Resilient Mangers Succeed and Prosper Where Others Fail. New York: Villard Books.

Creswell, J.W. (1998). Qualitative Inquiry and Research Design: Choosing Among Five Traditions. Thousand Oaks, CA: Sage.

DOE (Department of Energy). (2000, September 9). Special Focus Area: Benchmarking. [On-line]. Available: http://www.pr.doe.gov/dg61-3.html

Downey, J. (1995). The University as Trinity: Balancing Corporation, Collegium, and Communiity. Louise McBee Lecture, The University of Georgia, Institute of Higher Education.

EBI. (2001, September 9). Educational Benchmarking, Inc. [On-line]. Available: http://www.webebi.com/

Fairholm, G.W. (1998). Perspectives on Leadership: From the Science of Mangement to Its Spiritual Heart. Westport, CT: Quorum Books.

Finnigan, J.P. (1996). The Manager's Guide to Benchmarking: Essential Skills for the New Competitive-Cooperative Economy. San Francisco: Jossey-Bass.

Gaither, G. H. (Ed.). (1998). Quality Assurance in Higher Education: An International Perspective. New Directions for Institutional Research, 99.

Gaither, G., Nedwek, B.P., and Neal, J.E. (1994). Measuring Up: The Promises and Pitfalls of Performance Indicators in Higher Education. (ASHE-ERIC Higher Education Reports No. 5). Washington, D.C.: The George Washington University Graduate School of Education and Human Development.

Glaser, B. G., & Strauss, A. L. (1970). Discovering Substantive Theory: A Basic Strategy Underlying Qualitative Research. In W. J. Filstead (Ed.), Qualitative Methodology: Firsthand Involvement with the Social World (pp.288 - 304). Chicago: Markham Publishing Co.

Gold, G.G. (Ed.). (1981). Business and higher education: toward new alliances. San Francisco: Jossey-Bass.

Haavind, R. (1992). The Road to the Baldrige Award: Quest for Total Quality. Boston: Butterworth-Heinimann.

Jackson, N., & Lund, H. (Eds.). (2000). Benchmarking for Higher Education. Great Britain: Society for Research into Higher Education & Open University Press.

Kuchapski, R. (1997). Conceptualizing Accountability: A Liberal Framework. In Macpherson, R.J.S. (Ed.), The Politics of Accountability: Educative and International Perspectives (pp. 185-196). Thousand Oaks, CA: Corwin Press, Inc.

McCracken, G. (1988). The long interview: Qualitative research methods,13. Newbury Park, CA: Sage.

Merriam, S. B. (1988). Case Study Research in Education: A Qualitative Approach. San Francisco: Jossey-Bass.

Middaugh, M. F. (2001). Understanding Faculty Productivity: Standards and Benchmarks for Colleges and Universities. San Francisco: Jossey-Bass.

Miller, Z. (2000, May 31). A Cautionary Critique: The Winter of Despair or The Spring of Hope? In E.G. Simpson, Jr. & M. Hill (Co-chairs), Accountability and Financial Support of Public Higher Education. Conference conducted at the University of Georgia, Athens, Ga.

Morris, L. V. (1994). Assessing Quality in Academic Programs. In Defining and Assessing Quality: Papers Presented at an Invitational Seminar (pp.48 – 67). Athens, GA: Institute of Higher Education, The University of Georgia.

Palomba, C.A., & Banta, T. W. (1999). Assessment Essentials. San Francisco: Jossey-Bass.

Pappas Consulting Group Inc. (2000, September). University System of Georgia Project Scope I Benchmarking Study Final Report.

Peshkin, A. (1993). The Goodness of Qualitative Research. Educational Researcher, 22 (2), 23-29.

Pew Charitable Trusts. (1999, February 7-8). Report to Pew Charitable Trusts on "Triad Commission Meeting on Quality Assurance". Athens, GA: Author.

Quality Management Division. (1999). The Certified Quality Manager Handbook. Milwaukee: American Society for Quality Quality Press.

Rossman, G. B., & Rallis, S. F. (1998). Learning in the Field: An Introduction to Qualitative Research. Thousands Oaks, CA: Sage.

Rowley, D.J., & Sherman, H. (2001). From Strategy to Change: Implementing the Plan in Higher Education. San Francisco: Jossey-Bass.

Rudolph, F. (1977). Curriculum: a History of the American Undergraduate Course Since 1636. San Francisco: Jossey-Bass.

Sandor, J. (1997). Benchmarking. Unpublished manuscript, the Institute of Higher Education, University of Georgia, Athens, GA.

Seidel, J., & Kelle, U. (1995). Different functions of coding in the analysis of textual data. In U. Kelle (Ed.), Computer-aided qualitative data analysis: Theory, Methods, and Practice (pp.52-61). London: Sage.

Senge, P. (1990). The Fifth Discipline: the art and practice of the learning organization. New York: Doubleday/Currency.

Simpson, E.G., Jr. (2001). Engaging the Public Policy Agenda: A Conference on Accountability and Financial support of Public Higher Education. Journal of Higher Education Outreach and Engagement, 6 (3), 5-22.

Simpson, R. D. (2002). How Higher Education Differs from Corporate America. Innovative Higher Education, 27(1), 1-3.

Smith, H., Armstrong, M., & Brown, S. (1999). Benchmarking and Threshold Standards in Higher Education. London: Kogan Page Limited.

Spendolini, M. J. (1992). The Benchmarking Book. New York: AMACOM.

Stewart, R.G. (1996). Key Process Benchmarking for Continuous Improvement in Higher Education. Master's thesis, East Tennessee State University, Johnson City, TN. (ERIC Document Reproduction Service No. ED 410 902)

Strauss, A., & Corbin, J. (1990). Basics of qualitative research: Grounded theory procedures and techniques. Newbury Park: Sage.

Teeter, D.J., & Lozier, G.G. (Eds.). (1993, Summer). Pursuit of Quality in Higher Education: Case Studies in Total Quality Management. New Directions for Insitutitonal Research,78. San Francisco: Jossey-Bass.

USG (University System of Georgia). (2000, Summer). The System Supplement,37(6).

Zaire, M. (1996a). Benchmarking for Best Practices: Continuous learning through sustainable innovation. Oxford: Butterworth-Heinemann.

Zairi, M. (1996b). Effective Benchmarking: Learning from the Best. London: Chapman & Hall.

Zairi, M. (1998). Effective Management of Benchmarking Projects: Practical Guidelines and Examples of Best Practices. Oxford: Butterworth-Heinemann.

APPENDICES

APPENDIX A

THE *BENCHMARKING* CODE OF CONDUCT

The *Benchmarking* Code of Conduct

Preamble

Benchmarking -- the process of identifying and learning from best practices anywhere in the world -- is a powerful tool in the quest for continuous improvement and breakthroughs.

To guide *benchmarking* encounters, to advance the professionalism and effectiveness of *benchmarking*, and to help protect its members from harm, the International *Benchmarking* Clearinghouse, a service of the American Productivity & Quality Center, has adopted this Code of Conduct. Adherence to this Code will contribute to efficient, effective and ethical *benchmarking*.

Code of Conduct

1.0

Principle of Legality

1.1

If there is any potential question on the legality of an activity, consult with your corporate counsel.

1.2

Avoid discussions or actions that could lead to or imply an interest in restraint of trade, market and/or customer allocation schemes, price fixing, dealing arrangements, bid rigging, or bribery. Don't discuss costs with competitors if costs are an element of pricing.

1.3

Refrain from the acquisition of trade secrets from another by any means that could be interpreted as improper including the breach or inducement of a breach of any duty to maintain secrecy. Do not disclose or use any trade secret that may have been obtained through improper means or that was disclosed by another in violation of duty to maintain its secrecy or limit its use.

1.4

Do not, as a consultant or client, extend *benchmarking* study findings to another company without first ensuring that the data is appropriately blinded and anonymous so that the participants' identities are protected.

2.0

Principle of Exchange

2.1

Be willing to provide the same type and level of information that you request from your *benchmarking* partner to your *benchmarking* partner.

2.2

Communicate fully and early in the relationship to clarify expectations, avoid misunderstanding, and establish mutual interest in the *benchmarking* exchange.

2.3

Be honest and complete.

3.0

Principle of Confidentiality

3.1

Treat *benchmarking* interchange as confidential to the individuals and companies involved. Information must not be communicated outside the partnering organizations without the prior consent of the *benchmarking* partner who shared the information.

3.2

A company's participation in a study is confidential and should not be communicated externally without their prior permission.

4.0

Principle of Use

4.1

Use information obtained through *benchmarking* only for purposes stated to the *benchmarking* partner.

4.2

The use or communication of a *benchmarking* partner's name with the data obtained or practices observed requires the prior permission of that partner.

4.3

Contact lists or other contact information provided by the International *Benchmarking* Clearinghouse in any form may not be used for purposes other than *benchmarking* and networking.

5.0

Principle of Contact

5.1

Respect the corporate culture of partner companies and work within mutually agreed procedures.

5.2

Use *benchmarking* contacts designated by the partner company if that is their preferred procedure.

5.3

Obtain mutual agreement with the designated *benchmarking* contact on any hand-off of communication or responsibility to other parties.

5.4

Obtain an individual's permission before providing his or her name in response to a contact request.

5.5

Avoid communicating a contact's name in an open forum without the contact's prior permission.

6.0

Principle of Preparation

6.1

Demonstrate commitment to the efficiency and effectiveness of *benchmarking* by being prepared prior to making an initial *benchmarking* contact.

6.2

Make the most of your *benchmarking* partner's time by being fully prepared for each exchange.

6.3

Help your *benchmarking* partners prepare by providing them with a questionnaire and agenda prior to *benchmarking* visits.

7.0

Principle of Completion

7.1

Follow through with each commitment made to your *benchmarking* partner in a timely manner.

7.2

Complete each *benchmarking* study to the satisfaction of all *benchmarking* partners as mutually agreed.

8.0

Principle of Understanding and Action

8.1

Understand how your *benchmarking* partner would like to be treated.

8.2

Treat your *benchmarking* partner in the way that your *benchmarking* partner would want to be treated.

8.3

Understand how your *benchmarking* partner would like to have the information he or she provides handled and used, and handle and use it in that manner.

Benchmarkers

Know and abide by the *Benchmarking* Code of Conduct.

Have basic knowledge of *benchmarking* and follow a *benchmarking* process.

Prior to initiating contact with potential *Benchmarking* partners, have determined what to benchmark, identified key performance variables to study, recognized superior performing companies, and completed a rigorous self-assessment.

Have a questionnaire and interview guide developed, and share these in advance if requested.

Possess the authority to share and are willing to share information with *benchmarking* partners.

Work through a specified host and mutually agreed upon scheduling and meeting arrangements.

When the *benchmarking* process proceeds to a face-to-face site visit, the following behaviors are encouraged:

Provide meeting agenda in advance.

Be professional, honest, courteous, and prompt.

Introduce all attendees and explain why they are present.

Adhere to the agenda.

Use language that is universal, not own jargon.

Be sure that neither party is sharing proprietary information unless prior approval has been obtained by both parties, from the proper authority.

Share information about your own process, and, if asked, consider sharing study results.

Offer to facilitate a future reciprocal visit.

Conclude meetings and visits on schedule.

Thank your *benchmarking* partner for sharing their process.

The following guidelines apply to both partners in a *benchmarking* encounter with competitors or potential competitors:

In *benchmarking* with competitors, establish specific ground rules up-front, e.g. "We don't want to talk about things that will give either of us a competitive advantage, but rather we want to see where we both can mutually improve or gain benefit."

Benchmarkers should check with legal counsel if any information gathering procedure is in doubt, e.g., before contacting a direct competitor. If uncomfortable, do not proceed, or sign a security/non-disclosure agreement.

Negotiate a specific non-disclosure agreement that will satisfy the attorneys from both companies.

Do not ask competitors for sensitive data or cause the *benchmarking* partner to feel they must provide data to keep the process going.

Use an ethical third party to assemble and "blind" competitive data, with inputs

from legal counsel in direct competitor sharing. (Note: When cost is closely linked to price, sharing cost data can be considered to be the same as price sharing.)

Any information obtained from a *benchmarking* partner should be treated as internal, privileged communications. If "confidential" or proprietary material is to be exchanged, then a specific agreement should be executed to indicate the content of the material that needs to be protected, the duration of the period of protection, the conditions for permitting access to the material, and the specific handling requirements that are necessary for that material.

APPENDIX B

INTERVIEW PROTOCOL FOR *BENCHMARKING* RESEARCH

Interview Protocol for *Benchmarking* Research **Sue D. Achtemeier**

The purpose of this research is to investigate the understandings of *benchmarking* and its relationship to accountability that are held by the external governing board and those within various constituencies within the university.

Three main categories of questions:

How do you understand the purpose, process, and results of *benchmarking*?

How do you understand the purpose of *benchmarking*?

I would like to ask about your awareness *of benchmarking*.

What does the term *benchmarking* mean to you?

What do you perceive to be the purpose of *benchmarking*?

In your opinion what (or who) has motivated the use of *benchmarking* in higher education?

How, if at all, do you see *benchmarking* related to accountability? In what ways if any do you see *benchmarking* related to performance indicators?

How do you see *benchmarking* related to improvement?

How do you understand the process of *benchmarking*?

What areas within higher education would lend themselves to *benchmarking* in your estimation?

Suppose you decided to do a *benchmarking* study in one of theses areas, please walk me through it. How would you see the process unfolding?

How would you organize the study?

How would you decide who would be involved in the *benchmarking* study? Who would conduct the study? Who would the participants be?

In what form would you want the study presented to you?

What are the work products that result from *benchmarking*?

How would you take the results of a *benchmarking* study and apply them?

In your estimation how do the resource requirements for conducting a *benchmarking* study compare to the resources required for other types of studies?

How do you understand the <u>results of *benchmarking*</u>?

What do you see as positive aspects or benefits from *benchmarking*?

What do you see as barriers or challenges to doing a *benchmarking* study?

Do you think *benchmarking* can change anything and if so, how?

Summary Questions -- Global

In your opinion:

How would you evaluate the usefulness of a *benchmarking* study? How effective are *benchmarking* studies in a university environment?

What concerns if any do you have about (problems do you have with) the use of *benchmarking* for accountability in higher education?

What future use do you think *benchmarking* has in higher education?

Is there anything I have not asked you that it would be helpful for me to know about this topic?

Thank you. I appreciate your talking with me.

APPENDIX C

PROCESS MANAGEMENT MATRIX

Process Management Matrix

Interviewee	Code	Dr. S	Researcher	Y/N –Date	Thank You	Transcript	Member Check	Exec. Summary
Board	6	Y	Y	1/9 by phone	Y	1/16	2/13 R	
Board	7	Y	12/5	1/15	Y	1/23	2/13	
Board	10	Y	12/5	1/17	Y	2/21	3/6 R	
StateU-Corporation	5		Y	12/18	Y	1/7	2/13	
Corporation	8	Y	1/7	1/15	Y	1/30	2/13	
Corporation	13	Y	12/5	2/7	Y	3/11	3/13 R	
StateU-Collegium	9	BB	12/12	1/16	Y	2/8	2/14	
Collegium	2		Y	11/26	Y	12/4	2/13 R	
Collegium	12	Y	Y	1/25	Y	3/6	3/7 R	
StateU-Community	3		Y	12/6	Y	12/10	2/13 R	
Community	11	Y	12/5	1/24	Y	2/28	3/7 R	
Community	4	Y	Y	12/17	Y	1/7	2/13 R	
Practice	1		Y	11/15	Y	N		

KEY

Interviewee: "Board" designates the three participants from the Governing Board. "Corporation", "Colleguim", and "Community" designate the representatives from those three sectors of Downey's model. "Practice" denotes the researcher's pilot interview.

Code: The number by which the interview transcripts were identified.

Dr. S: Y indicates that Dr. Ron Simpson made the initial contact to request that person's participation in this study. BB indicates that Dr. Bob Boehmer made the initial contact. Blank indicates that the researcher made that initial contact.

Researcher: Y or a date indicates the researcher's follow-up to the selected individuals requesting their participation.

Y/N-Date: All of those invited agreed to participate in an interview on the dates indicated. (2001-2002)

Thank You: Y denotes that the researcher followed each interview with a personal thank you email or letter to the participant.

Transcript: The dates indicate when each transcript was received from the transcriber.

Member Check: The dates indicate when transcript excerpts that had been selected for possible use were mailed to each participant for their comments or corrections. R marks those that were returned to the researcher.

Exec. Summary: Each of the twelve participants was offered and chose to receive an executive summary of this research at the conclusion of the study.

APPENDIX D

INITIAL LIST OF DATA CATEGORIES

Initial List of Data Categories

Process of *Benchmarking*

Different definitions of *Benchmarking* - Process vs. Metric
Misapplied or misunderstood use of *Benchmarking* compared to Xerox's benefits from it. What is being required of universities is not what benefits business?
Apples & oranges
    Data definitions
    Definition of peers
Self-analysis precedes *Benchmarking*/ Step zero
Continuous nature of process *Benchmarking* -- must be on-going
Gaps & different understandings of how to fix them
    Fix it yourself
    Process owners participate investigating their fix
Cost/ resource intensive or not

Purpose of *Benchmarking*

Communication
Accountability
Change
Mutual benefit
Different cultures
    Their fix not fit your institution
    Business vs. higher education

Results of *Benchmarking*

Formative vs. summative
Performance Indicators (imposed) vs. Metric *Benchmarking* (discovered)
Rankings
Fad?