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# Administration Perception of Faculty Productivity In Four Year Public Institutions of Higher Education In Northern New Jersey

William F. Clark  
*Seton Hall University*

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ADMINISTRATION PERCEPTION OF FACULTY PRODUCTIVITY  
IN FOUR YEAR PUBLIC INSTITUTIONS OF HIGHER EDUCATION  
IN NORTHERN NEW JERSEY

BY

William F. Clark

Committee

Dr. Joseph Stetar - Mentor  
Dr. David Gibson  
Dr. George Lindemer

Submitted in partial fulfillment of the  
requirements for the Degree of Doctor of Philosophy  
Seton Hall University

1999

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## Chapter I

### INTRODUCTION

#### Historical Background on Faculty Workload and Productivity

When investigating the history of faculty workload and productivity in American higher education, one must look back to what Heydinger and Simsek (1992) call the “clergy model” in their paper An Agenda for Reshaping Faculty Productivity: State Policy and College Learning. (p. 7) This model was the predominant pattern from the founding of higher education to the last half of the nineteenth century. The basis of this model were tutors who were aspiring ministers waiting for a parish. After graduating from college, they would bide their time by providing guidance to a class of undergraduates. They remained with the students virtually night and day theoretically for the entire four years of study. Finkelstein (1989) in his paper From Tutor to Specialized Scholar: Academic Professionalization in Eighteenth and Nineteenth Century America states “the responsibility of tutors were both pedagogical and pastoral or custodial in nature.” (p.61) However, since these young men were preparing for church careers, they did not remain long in education.

At Harvard, prior to 1685, very seldom did a tutor see a class through all four years. Only a half dozen of the forty-one tutors during this period remained at Harvard more than three years. (Finkelstein, 1989, p. 61)

It was not until after 1750 that the beginning of a permanent faculty appears in American higher education. A prominent scholar was hired usually to run the institution administratively and act as the primary teacher of the undergraduates. Cremin (1989) in his chapter "College" talks about how Henry Dunster was hired by Harvard in 1640. Cremin states, "There is every evidence that Dunster taught the entire curriculum on his own, at least during the early years of his tenure..." (p. 37) For Dunster this required a schedule that encompassed Monday through Saturday from 8:00 AM to 4:00 PM. (p. 35) This monastic environment and the predominant teaching ethic suggested productivity was linked to the mission of the institution and focused on the liberal and moral education of young men. Faculty were not trained as educators but as ministers so their mission was to turn students into good moral Christians.

By the 1750's, the college presidents at Harvard and later Yale were being supported by a small number of permanent faculty members. This pattern was quickly adopted by other colleges founded at this time. By the 1800's as the knowledge base in American higher education expanded, an early core of permanent faculty appeared in higher education. They were still focused on teaching, recitations and supervision of dormitories as well as the moral and disciplinary welfare of the students. However, these permanent faculty did not take charge of a class of students but were appointed to a particular subject area. The addition of permanent faculty leads into what Heydinger and Simsek call the "professional model". (Heydinger & Simsek, 1992, p. 8)

During the last portion of the 1800's, these permanent faculty members broke with the local religious based clergy model. At this time they "rebelled against patrolling the unruly dormitories, praying with the repentant, or punishing the miscreants". (Heydinger & Simsek, 1992, p. 8) During the same time the scientific method began to take hold to meet the needs of a growing industrial nation. As a result, faculty became mobile and shifted their teaching to practical, hands-on subjects. By 1914, the formation of the American Association of University Professors sent a clear signal that the professional model was here to stay. While the importance of research as we know it today would have to wait until after World War II, the research ethic started to emerge as a dominant influence. Teaching which at one time was the primary mission had taken a back seat to two new functions in higher education - service and applied research. These two new functions expanded the workload and productivity demands on the faculty.

After World War II the research model began taking the place of the professional model. More than anything else, research placed the greatest strain on the need to alter faculty workload and revise productivity policy. Global problems and research became the primary focus of American higher education. With funds being plentiful during the boom years following World War II, this model was allowed to expand with minimal restraint. Institutions were not forced to make difficult decisions whether to support teaching or research since in most cases there were funds and personnel to support both. During this time many faculty were allowed to choose their own workload and productivity through the

dominance of faculty control. "Faculty members work has had considerable autonomy, especially in the past three decades. College teachers and researchers traditionally have been free to determine what they teach and study and how they go about it." (Austin & Gamson, 1983, p. 30)

Workload studies can be traced back to a 1908 survey conducted by the Carnegie Foundation for the Advancement of Teaching which indicates:

...hours actually spent in class room teaching notes all the appropriate caveats: ...classroom hours do not reflect time spent in preparation beforehand or with students afterward; different kinds of classes require varying amounts of work; nor can classroom hours alone reveal the burden of student numbers. Nevertheless, the figures reported by CFAT still shed some light on this situation. (Geiger, 1989, p. 281)

A 1909 survey of assistant professors at various universities reveals that among the people complaining were those "who were dissatisfied, excessive or elementary duties overshadowed other problems..." (Hawkins, 1989, p. 267) The first comprehensive study listed in most workload publications was performed by Leonard Koos in 1919 who examined various influences on teaching loads. (Hopper, 1992; Jordan & Layzell, 1992; Yaker, 1984) More current studies seem to confirm that faculty devote considerable time to their work. In 1959 a conference supported by the American Council of Education and three other boards was of great interest to institutions at that time. "In recent years, as universities and colleges have been pressured to cut costs, the study of faculty workload has received considerable attention." (Austin & Gamson, 1983, p. 19) A 1990 study in Virginia by the State Council of Higher Education shows that faculty "work somewhere between 47 and 57 hours per week..." (Wergin, 1994,

p. 11) Wergin reports that studies suffer from problems in credibility because the data is usually based upon faculty self reporting and many of the studies include categories "such as keeping up with the field and preparing courses, not to mention contemplation, are suspect to public and clearly subject to ambiguity and even reporting abuse." (p. 11) A 1991 study by the National Center for Education Statistics indicates that faculty spend "between fifty-two and fifty-seven hours per week." (Russell, Fairweather, & Hendrickson, 1991, p. 52) A 1992 study by the Education Commission of the States and the State Higher Education Executive Officers confirms the previous study. When reporting out the total hours per week spent in all activities for all four year institutions, the range was between 53 and 55 hours per week with an average of 54 hours. (Russell, 1992, p. 7)

#### Background of the Problem

For many years, higher education benefited from a growing economy. Administrators of higher education blessed with abundant funds are experienced at developing new programs and adding new faculty. With the advent of contracting resources, administrators find themselves in uncharted territory and struggling with new priorities. To affect the necessary cost cutting measures required by the new economy, administrators of higher education are being told to require the faculty to be more productive. Allen (1996) stated "Many policymakers, concerned about the fate of higher education during fiscal deprivation, cope with demands for the assessment of faculty workload and productivity..." (p. 21)

The worst struggle is how to define faculty productivity. Without a consistent and accepted definition of productivity, it becomes impossible for an administrator to require an increase in faculty productivity. Likewise, the faculty, realizing that their ivory tower is under siege, have fought any definition of productivity as being either incomplete or nonrepresentative of what a faculty member actually does. "Faculty members usually reject most productivity measures as static, deterministic, and presuming a nonexistent standard of uniformity." (Allen, 1996, p. 32) In this absence of an accepted definition, many administrators and even faculty revert to simplified explanations of workload to describe their productivity. Some systems actually try to define productivity but have trouble deciding which inputs to compare with which output. Moreover, since outputs are so hard to measure in higher education, many systems will use the comparison of two inputs to measure productivity.

Managers and leaders in business find the problems faced by higher education administrators difficult to comprehend since business has had to live with productivity measurements every day. When business is asked to define productivity, the definition usually given is a ratio of outputs as compared to inputs. "The same general concepts used to measure private sector productivity were employed to develop the Federal Productivity Measurement Program. That (the Federal Productivity Measurement Program) is the BLS (Budget Labor Statistics) program focused on the relationship between the output of goods and services and the inputs expended to produce that output." (Fisk & Forte, 1997, p. 20) This definition works best for a comparison of single inputs and outputs;

however, with the complexity of higher education multiple inputs and outputs must be compared. Classically, inputs refer to the costs or hours worked and outputs refer to the produced benefits or goods. Using this definition as a basis, the total productivity ratio then must be equal to the total benefits or goods divided by the total costs or hours worked. This definition does not take into consideration that the process of higher education is not students on an assembly line having courses attached to them depending upon the degree and career of the student.

While even business has a hard time defining productivity in sectors that are human capital intensive, many complain that institutions of higher education are "the least efficient and most disorganized institutions in our society, chaotic collections of eccentric people held together by a common grievance about parking." (Carothers, 1992, p. 6) Carothers also stated that his business friends see the faculty of higher education as "loose collections of prima donnas, characterized by large egos, quarrelsome and myopic, trained to challenge authority, whether scientific or scholarly or political, and just generally impossible to manage."(p. 6) These business people feel it is about time that higher education had to live by the same rules that business has had to live with for the last two decades. The consensus is that higher education is becoming more expensive than can be afforded in the present economy. Some perceive that higher education needs to decrease tuition (Guskin, 1994), increase faculty participation in freshman instruction (Cage, 1996) and make higher education more accountable (Johnstone, Aceto, Barba, Chen, Goldwhite, Hauser, Jones,

Highsmith, Scheuerman, Steck, Thobaben, Wildman, & Young, 1997). Yet very little is being written about how these steps will be accomplished and what the higher education administrators think faculty productivity means and how it can be measured or what might be viable strategies for increasing faculty productivity.

#### Background of the Problem in New Jersey

The New Jersey Commission on Higher Education submitted a report in April of 1996 entitled "NJ's Renewable Resource: A Systemwide Accountability Report" which stated "Accountability issues in the 1990's have been enlarged to include productivity and various measures of institutional effectiveness. By 1994, approximately one-third of the states had some form of 'performance indicator' system in place." The report however acknowledges that accountability reporting is problematic if it is a report card displaying only outcomes without providing explanations of the circumstances behind the outcomes. While the report adopts several categories of indicators, it makes clear that these measures are not perfect and "future reports will present more extensive data on cost and productivity." Finally the report makes the following recommendation for future accountability reports:

Future reports must use existing data sources more thoroughly and systematically to answer fundamental questions regarding the funding, cost, and productivity of higher education in New Jersey. New data elements may need to be created for this purpose. In addition, there is now a lag between the most sophisticated thinking that is taking place throughout the country regarding the measurement of higher education's performance, on the one hand, and the quantitative indicators that are currently available for analysis and reporting, on the other. Consequently there is a need for New Jersey's higher education leaders and policy makers to



consider the use of new indicators and to set in motion the actions and processes that will produce better data to these indicators. (<http://www.state.nj.us/highereducation>: 1996)

While this report does not come out and say that quantitative measures are not adequate for productivity reporting, it implies that there needs to be better data generated. Since qualitative data is difficult to benchmark, the reluctance to use qualitative methods is understandable. However, if as this report states, the quantitative data is inadequate, the failure to explore qualitative methods means that productivity and accountability reports will continue to be inadequate.

In December of 1997, the New Jersey Commission on Higher Education submitted a budget policy statement for 1999. The statement reiterated the goals for financing higher education established by the commission in 1995. The last goal states, "establishment of a cost-effective delivery system that embodies resource sharing for systemwide efficiencies and institutional accountability for the prudent and efficient stewardship of the state's investment in higher education." (1997) The report details the projected costs for 1999 with emphasis on student assistance, capital funding, and educational operating aid. The last section entitled "Accountability and Funding for Statewide Goals" states:

Students, policy makers, donors, and the public expect institutions to deliver a quality education at an affordable price. As part of a continued emphasis on excellence, the Commission encourages institutions to increase their use of performance indicators as measures of progress toward institutionally defined goals, consistent with their mission as well as state needs. Progress toward goals should be monitored and reported in institutional or sector budget requests. The Commission also encourages institutions to engage in periodic external reviews to enhance their effectiveness and efficiency.

(<http://www.state.nj.us/highereducation>: 1997)

The Commission wants to start rewarding institutions in 1999 for achieving their identified goals. The focus of the reward is funding based upon outcomes like academic success rather than process oriented rewards. The accountability reporting process was jointly developed to meet both the needs of the State and the mission of the various institutions. The Commission recommends that an additional equivalent of two percent of operating aid be set aside to "reward public institutions that demonstrate improved performance, beginning with key areas such as graduation and transfer rates and operating efficiency."

The linking of productivity data with funding is inevitable. However, the productivity data is still based upon inadequate and in some cases erroneous data. In its report to the Commission, the accountability committee stated "there may be shortcomings in the data for various reasons, such as imprecise data definitions." (Codey, Cade, & King, 1997) Another shortcoming may be using quantitative data to try to measure a process that is so complex that it can not be stated only in numbers. Since the administrators of the institutions of higher education are required to supply productivity data, it is important to understand how they perceive faculty productivity.

#### The Research Question

What are the perceptions of administrators concerning faculty productivity in four year public institutions of higher education in Northern New Jersey?

### Subsidiary Questions

1. How is productivity defined by academic and business administrators in four year public institutions of higher education in Northern New Jersey?
2. Is productivity defined differently by academic administrators compared with business administrators at four year public institutions of higher education in Northern New Jersey?
3. How do academic and business administrators at four year public institutions of higher education in Northern New Jersey perceive the fiscal outlook for higher education at the present time and for the next three to five years?
4. Do academic and business administrators at four year public institutions of higher education in Northern New Jersey perceive a need to increase faculty productivity in the present and future fiscal environment?
5. If there is a perceived need to increase productivity, what strategies are being considered by academic and business administrators of four year public institutions of higher education in Northern New Jersey to increase faculty productivity?

### Importance of the Study

As stated in the background of the problem, faculty productivity is difficult to define and measure. The difficulty is that there are differing views concerning the measurement of faculty productivity and what literature there is has conflicting theories. As soon as one measurement is proposed, there are many

factions that find fault with the proposed measurement. "Another reason for using qualitative methods is that for particular outcomes no acceptable, valid, and reliable quantitative measures exist." (Patton, 1990, p. 130) There is a need to ascertain the perceptions of administrators concerning faculty productivity to supplement the cold numbers proposed by the various conflicting quantitative studies. The qualitative research suggested in this proposal will help to evaluate the quantitative data that has been collected in abundance concerning faculty workload and productivity by providing personal insight into the decision making process. The quantitative studies are helpful in identifying global areas of study, however, the qualitative design of this study will hopefully give reason and depth to the areas of study. Since there is no concrete theory concerning faculty productivity that everyone can agree on, this study will strive to determine the concept of faculty productivity. The search for a concept lends itself to the qualitative research design.

In sum, the quantitative paradigm employs a lock-step model of logicdeductive reasoning from theory to propositions, concept formation, operational definition, measurement of the operational definitions, data collection, hypotheses testing, and analysis. The qualitative paradigm is a dynamic interchange between theory, concepts, and data with constant feedback and modification of theory and concepts based on the data collected. This emerging, refining "explanation framework" gives direction to where additional data need to be collected. It is marked by a concern with discovery of theory rather than the verification of theory. (Filstead, 1979, p. 38)

The use of inductive analysis will help to find patterns in the cases under investigation without forcing the respondent into preconceived dimensions.

Quantitative studies using structured multiple choice deductive questions follow

dimensions predetermined by the researcher. This study uses open-ended interviews to allow the respondents to suggest the categories and patterns.

The topic itself is of vital importance to the profession. Besides being the subject of many debates, articles and arguments in the academic field, faculty productivity has become a topic of interest to those outside the profession. With taxpayers, legislators, and journalists calling for faculty to become more productive, the measurement of faculty productivity moves from an academic exercise to a more practical arena. This much debated topic is now being used to define financial support especially in public institutions of higher education. It has become such a crucial issue that, in an unprecedented move, the leaders of the faculty senates and the faculty unions of The State University of New York and The California State University, two of the largest public systems of higher education in the nation, united to present the "Public Higher Education and Productivity: A Faculty Voice". This document spells out seven principles to meet the economic, demographic and political challenges facing public higher education. The first principle stated that the faculty understands the need for increased productivity in public higher education. The remaining principles address the faculty's perception of how to increase productivity. The research proposed will ascertain administrator's perceptions.

#### Definition of Terms

Academic administration: Administrators who have control over the academic portion of higher education and generally either come from faculty positions or still hold faculty appointments and have an academic degree.

Business administration: Administrators who control the business and fiscal portion of higher education, generally come from a business background and have a business degree, and usually do not hold faculty appointments .

Four year public institutions of higher education: These are nonspecialized institutions which have only one campus which awards at least baccalaureate degrees.

Faculty productivity: In a review of the literature, faculty productivity involves the three concepts of "input, output and process, including a ratio to describe the input-output relationships." (Toombs, 1973, p. 6) Productivity ratios are simplistic methods for trying to report complex organizational operations. However, a final definition of faculty productivity will be developed from the interviews.

#### Limitations of the Study

For the purpose of this study, institutions of higher education will be limited to single campus nonspecialized four year public institutions of higher education in northern New Jersey that offer a baccalaureate degree. There are other institutions that offer baccalaureate degrees or specialized degrees, but will not be addressed in this study. Respondents will be limited to administrators at the dean level or above. Although department chairs are sometimes considered part of administration, they will not be included in this study. This study will be limited to a purely quantitative study using only an open-ended standardized interview technique. No quantitative data except the data collected in the demographic questionnaire will be used in this study.

## Chapter II

### REVIEW OF RELATED LITERATURE

#### Introduction

Productivity is a complex issue facing higher education. As Meyer (1998) said in her book Faculty Workload Studies: Perspectives, Needs and Future Directions "The business community has been a major critic of the quality and productivity of modern universities. Many legislators view higher education as unproductive and unaccountable." (p. iii) Since a baccalaureate degree is becoming more and more important for access to better careers, the increases in tuition is putting a greater financial hardship on students. "Sticker shock' is a real phenomenon in the public's mind, and the public believes that costs are escalating beyond the reach of the middle class." (p. 33) The "sticker shock" of higher education is causing the general public to pressure colleges and universities to find ways to improve productivity. "Taken together, the states' budget crises, higher education's own rising costs, and the growing perception of business, legislators, and the public that higher education needs to improve its productivity led inexorably to the first calls for studies of faculty workload." (p. 38)

The literature concerning workload is abundant and details many aspects of the subject, from the pure numerical values reported by many surveys done over the years to an in-depth analysis of exactly how workload is derived and why the subject is important. Productivity literature is not as abundant since many authors find it hard to reconcile what faculty do in terms of productivity studies. Also, the subject is sometimes misunderstood, and therefore is incorporated into workload. "The two words – workload and productivity – should not be confused, although they are commonly used interchangeably." (Meyer, 1998, p. 45)

The studies on workload and productivity reflect that more and more public discussion is focusing on the use or suspected misuse of faculty resources. The 1990's can be called the ratcheting years. It is a time of conservatism that is intervening in the three major areas of spending; taxes, health care and education. Tax cuts and curbing health care spending were at the top of the list. When these are addressed, the next big target is education. "However highly they may value higher education, legislators listen to voters. And voters have been interpreted as saying that 'other priorities must take precedence over higher education'." (Meyer, 1998, p. 32)

There is also a pervasive public perception that teaching quality is decreasing while the "publish or perish" mentality of the research model forces faculty to make choices that further the decline of the level of teaching. "Today...publishing has replaced teaching as the principal faculty role in universities and has become increasingly important criterion for promotion, tenure, and career success in four-year colleges." (Blackburn & Lawrence, 1995, p. 115) This perception by the public is causing higher education to lose the trust of the public and governing bodies. There have been studies to investigate whether being a good researcher also helps the faculty member's teaching ability. "A sample of over 4,000 faculty from a variety of institutions found that faculty in the social sciences were the only group where consistent though modest relationships existed between the number of published articles and an instructor's effectiveness." (Meyer, 1998, p. 49)

To understand faculty productivity it is necessary to also understand faculty workload. "The confusion with regard to terms (workload and productivity) may be exacerbated by that lack of measurement of productivity, giving rise to the predilection to use measures of workload, however dubitable they may be."



(Meyer, 1998, p. 47) So initially there is a need to define workload and also productivity in higher education. After these terms are defined, it is necessary to show what measurements are now being collected in both workload and productivity. The use of this collected data is vital to the understanding of productivity and to the increased call for accountability. Definite limitations exist with all measurements of workload and productivity that must be taken into account when using the studies. Since they are being attacked, the faculty of higher education have taken the offensive and have begun to defend their current productivity.

#### Defining Workload and Productivity in Higher Education

Finding a consistent definition for faculty productivity is virtually impossible. Even definitions of workload are inconsistent. Many states and systems which started the process with hope and energy, usually finished in discouragement. "Studying what faculty do and produce involves many challenges, and changing what they do and produce is even more difficult."

(Meyer, 1998, p. 39) However, to answer the rising hue and cry of the public, it becomes necessary to find some common ground to understand the terms workload and productivity when applied to higher education.

#### Workload

One of the generally accepted authorities on faculty workload is Harold E. Yuker. His book Faculty Workload: Research, Theory, and Interpretation and his earlier book Faculty Workload: Facts, Myths and Commentary contain comprehensive analysis of workload and how it is studied and reported. He states that one of the problems in determining faculty workload "is that of inclusion and exclusion." (Yuker, 1974, p. 8) Yuker describes how different data gathered on workload from institutional reports can be used to describe actual

faculty work. He then describes various self reporting mechanisms and how they are used to define workload. Yuker breaks down the activities most frequently associated with workload and describes how they affect the data. He also describes other activities not usually associated with workload and links them with studies associated with workload. Finally Yuker shows how hard faculty members work by using the data presented in the reviewed studies.

All of the data and studies cited by Yuker in both books are quantitative in nature. The review of workload data collection will use the categories used by Yuker: student credit hours, student credit hours per full-time equivalent (FTE), contact hours, student/faculty ratio, other formulas, and use of institutional data. Added to this list is activity reporting as described by Jordan (1994). Yuker also points out that it is impossible to include everything to the satisfaction of all parties. He suggests there are many factors which influence teaching and workload. Some of these factors are class size, course level, mode of presentation, subject matter, new course preparation and number of preparations, and the use of different workload formulas. Yuker recommends that a study of workload use as many different categories as possible that will allow a choice of what to include and what to exclude.

It is important to remember that total faculty workload is a complete picture including the actual work week of the faculty versus the expected work week; off-campus work versus on-campus work; individual, disciplinary, rank and institutional differences in work. The National Center for Higher Education Management Systems Faculty Activity Analysis form was designed to "cover the so-called 'full professional life' of the faculty member who is completing the form." (Manning & Romney, 1973, p. 10) The form has categories that are "(1) general enough to fit many types of institutions, (2) extensive enough to enable faculty to

easily list all their professional activities, and yet (3) not so extensive that it becomes cumbersome for faculty to complete." (p. 14) The center also incorporated into their form the different methods of instruction such as lecture, laboratory, recitation/discussion, seminar, independent study, tutorials, and programmed instruction; and also incorporated unscheduled teaching activities such as guest lecturing, thesis advising, discussion with colleagues, thesis committee participation, and giving colloquia.

Allen (1997) in his article *Faculty Workload and Productivity: Ethnic and Gender Disparities* defined workload as "a composite of all professional tasks - intra- and inter-organizational - performed by faculty: teaching or instructional activities, class preparation, research, administration, and public service." (p. 27) He goes on to state that other factors also affect workload such as "size of the institution, the social composition of its student body, the distribution of rank, the mean size of departments, the distribution of academic majors, the distribution of instructional resources, the internal pecking order, and the nature of the subject matter." (pg. 27)

Qualitative information is also helpful when trying to define faculty work. Personal perspectives of the individuals involved can humanize the process and provide a framework for study. As Gray and Diamond (1994) remark in "Defining Faculty Work",

There also are various unofficial sources of information available about campus culture (the way things were, the way they are, and the way they should be in the future). These include the collective history and perceptions of the people who make up an institution and its units: its schools, colleges, divisions, departments, and programs. Although these sources of information are largely personal and, in some cases, may provide data that are quite anecdotal, they are no less relevant to the redefinition of faculty work than factual information from official sources. The purpose of

gathering personal information is to lend a human face to the official definition of faculty work. (p. 73)

When taken together all the different views that will be collected from qualitative data will help describe the culture of the institution. For example the survey used at Syracuse University focused on people's perceptions of the relative importance of research and undergraduate teaching. More importantly the survey asked the respondents to indicate their perceptions of the direction their institution was going and asked open-ended questions to discuss reasons behind their responses.

The qualitative information on workload can be useful to administrators when it comes time to suggest institutional changes. As Bolman and Deal put it, "In situations that are clear and familiar, the decisions are easy. In more confusing, uncertain, and threatening situations, however, human beings often need help." (Bolman & Deal, 1991, p. 404) Knowing and being able to influence how people view the culture of the institution is vital to a leader who wishes to make changes. "...it is more likely that culture controls leaders than that leaders control culture." (Birnbaum, 1992, p. 10) Exemplary leaders do not try to force their own vision on the institution; they help the faculty discover the goals already contained in the institution. Qualitative studies help a good leader to discover the culture that is already within the institution. Qualitative results "can provide a reality check for the official rhetoric embodied in formal documents." (Gray & Diamond, 1994, p. 75)

### Productivity

The concept of productivity in higher education is elusive. "...productivity is exceedingly difficult to measure and to regulate in higher education." (St. John, 1994, p. 54) The problem plaguing productivity studies in higher education is the measurement of input and output.

The major problem is that of defining and measuring outputs of the colleges and universities. Unfortunately, the literature provides very little help in solving the problem. The result is that any empirical study of higher education production and cost behavior will be limited by the crudeness of the output measures used and the study will be open to criticism on that basis. (p. 54)

In many cases the measure of faculty productivity seems to rely heavily on teaching data. "Faculty productivity is typically measured in terms of student/faculty ratio or of student credit hours produced per faculty FTE. Measurements of research/scholarship productivity vary." (O'Brien, 1993, p. 9) Also, service productivity seems to elude the ability to be measured consistently. In many cases both research and service productivity relies heavily on the self reporting of faculty as to the number of hours they actually spend.

If an economist is asked to define productivity, the definition usually given is a ratio of outputs as compared to inputs. While this definition works best for a comparison of single inputs and outputs, with the complexity of higher education multiple inputs and outputs must be compared. Classically, inputs refer to the costs and outputs refer to the produced benefits. Using this as a basis, the total productivity ratio then must be equal to the total benefits divided by the total costs. "What started as a simple concept has become quite complex. As in the story of the blind men and the elephant, productivity can be described in many different ways depending upon one's vantage point and predisposition." (Massy & Wilger, 1995, p. 12)

William Toombs provides the clearest definitions of faculty productivity, but he does so in terms of ratios of quantifiable aspects of faculty life. However, he admits that there is an inherent limitation in productivity studies. "To evaluate such quantitative findings, the variables should be derived from an analytical framework which encompasses all of the inputs and outputs of the system and

provides a theory of how it functions..." (Toombs, 1973, p. 13) In the same context, Austin and Gamson state, "Studies of teaching and research, while plentiful, beg the question of significance in their emphasis on the measurement of productivity. Faculty members must assume that their contributions through research, teaching, and service are significant. The difficulty of evaluating specific outcomes of their work, however, also complicates the issue of significance." (Austin & Gamson, 1983, p. 32) Allen (1997) in his article *Faculty Workload and Productivity: Ethnic and Gender Disparities* states "Defining workload within a theory of academic organizations will permit progress in assessing productivity. Productivity is a composite measure of the efficiency and effectiveness of a faculty member in transforming inputs into desired outcomes across the key academic domains, expressed in units of time. He further describes the different categories of productivity such as instructional productivity and research productivity." (p. 28) In an earlier article, Allen stated "Confined to crude quantitative measures associated with teaching or research, productivity rarely encompasses the multiple indicators of the multiple activities engaged in by faculty, and rarely includes a qualitative component." (Allen, 1996, p. 25) Allen stresses that the indicators used to measure faculty productivity typically mismeasure it and are actually measuring "faculty priorities rather than productivity". (p. 25)

In a qualitative study of faculty perception of productivity, the faculty interviewed agreed that "'productivity' seems to be synonymous with 'results'". (Massy & Wilger, 1995, p. 12) The faculty also perceive that productivity is linked with measurement. Since research results are easier to measure than other aspects of higher education, faculty seemed to lean towards research to measure productivity. The faculty interviewed almost unanimously agreed that

productivity should focus on results or output. This violates the true definition of productivity by not including inputs, but faculty “tend to define productive behavior as 'being as good as they can be'.” (p. 12) While it was clear that the faculty felt that quality was what really mattered, the truth of the matter was that it is quantity that is actually measured.

Heydinger and Simsek (1992) in “An Agenda for Reshaping Faculty Productivity: State Policy and College Learning” argue that productivity as it is defined in the business world should not be applied to higher education.

It's easy to say that institutions are not productive, but compared to what?” The term “productivity” (Whether applied to institution, staff, or faculty) carries subjective meaning which must be placed in an historical context; its definition both time- and institution-specific. Productivity is defined by a complex array of factors internal and external to higher education. The values, culture, status and structure of American universities have changed over time. These changes differentiate the definition of faculty role and therefore faculty productivity. (p. 3)

Heydinger and Simsek identify the four forces that interact in how faculty productivity is judged. These forces are historical, societal, higher education sector, and institutional. Heydinger and Simsek call upon higher education to stop trying to combat these forces, but to flow with them like tides.

The leaders of the faculty senates and faculty unions at both The State University of New York and The California State University released a report entitled “Public Higher Education and Productivity: A Faculty Voice”. This report states:

The “productivity” of the faculty is the efficiency with which the faculty perform their multiple responsibilities--or, in corporate parlance, “produce” their multiple outputs of: (a) learning, the product of teaching; (b) knowledge and scholarship, the product of research and other scholarly activities; (c) institutional, community, and professional well-being, the products of shared governance,

community service and professional activities. (Johnstone et al., 1997, p. 1)

Obviously the leaders of the faculty are attempting to change the focus of productivity from inputs to outputs. The faculty perceptions show "that most professors want to improve outputs - at current resource levels if necessary, and at higher resource levels if possible." (Massy & Wilger, 1995, p. 13)

It is hard to define productivity without looking at faculty work and time. "Imbedded in the discourse about faculty productivity are assumptions regarding the temporal aspects of faculty work as well as the links between the use of time by faculty, their productivity, and the effectiveness of colleges and universities." (Lawrence, 1994, p. 25) Lawrence goes on to explain that temporal aspects of faculty work are cultural and individual perceptions of time. Temporal patterning of work is the sequence of activities that occurs when people use the time available which also includes how they standardize activities and how some activities are scheduled to correspond with other cycles or periods of time. She goes on to describe patterns within the organizations that vary in periodicity, tempo, timing, and duration. All of these help to explain how a college and its faculty perceive time. "The image of the professor with complete autonomy over her or his work is inaccurate. Faculty must constantly balance multiple time-related expectations in order to be productive." (p. 33) However, faculty "view productivity as synonymous with results, not ratio of outputs to inputs as an economist would. Thus improving productivity for these faculty means increasing outputs rather than producing the same or greater output at lower costs." (Meyer, 1998, p. 51)

#### Collecting Workload Data and Productivity Measurements

There is a primary difference between workload and productivity. Workload is mostly data collected either from the source (self-reporting



mechanisms) or from secondary materials (institutional reports). Once the workload and other institutional data is collected, how it is compared and calculated produces productivity measurements. Therefore workload for the most part is the reporting of data and productivity is perception based upon data.

### Workload Studies

In the recent past there have been several major nationwide studies of faculty workload. The literature is also full of statewide studies and studies of individual institutions within the states. The results of four nationwide studies and several statewide studies are presented.

*NSOPF 1988*      The National Survey of Postsecondary Faculty was undertaken by the U.S. Department of Education in 1987 fall term. The survey used the results from over 7,400 full and part-time instructional faculty. The faculty workload results were classified using the Carnegie classification of colleges and universities. The survey produced hard numbers for total hours spent per week on all activities. "During the 1987 fall term, full-time faculty averaged 46 hours per week at academic institutions, 4 hours per week on other paid activities, and 3 hours per week providing unpaid professional services—a total of 53 hours per week."(Russell, Fairweather, & Hendrickson 1991, p. v) The survey correlated well with another survey done for the Department of Education at about the same time by the Office of Educational Research and Improvement (OERI) and the National Center for Research to Improve Postsecondary Teaching and Learning (NCRIPAL). (Table 1) The verification of these two independent studies helps to produce clear hard data on how much time faculty actually spend working. The survey also shows that faculty spent 56 percent of their time on teaching, 16 percent of their time on research, 13 percent on administration, 4 percent on service, 5 percent on professional development and

7 percent on other work. One sidelight of the survey showed that tenured faculty put in more hours per week than faculty at systems without tenure or not on a tenure track (53 hours compared with 48 - 50 hours).

Table 1

Total Hours per Week Spent on All Activities

	All	Carnegie Classification					All 4-year
		Research	Doctoral	Comprehensive	Liberal Arts	All 2-year	
OERI (1988)	52	55	54	53	53	47	54
NSOPF (1988)	53	57	54	52	52	47	54

(Russell, 1992, p. 7)

**NSOPF 1993** The second National Survey of Postsecondary faculty sampled over 31,000 respondents during the 1993-94 academic year. The focus of the survey was minority faculty and the survey widened its inclusion from instructional faculty in the 1988 survey to any faculty member in the 1993 survey. The results included little general workload data but presented a detailed picture of faculty composition and how this affects workload. The focus was primarily on gender and ethnic disparities rather than a presentation of general workload results.

**HERI 1989-90** The Higher Education Research Institute (HERI) conducted a survey of over 35,000 full time college and university faculty at almost 400 institutions nationwide. The survey asked faculty how they spend their time as well as other questions concerning interaction with students, preferred teaching and testing methods, perceptions of institutional climate and primary stress and satisfaction sources. While the survey instrument did not ask for total time spent working during the week, it asked the respondent to mark a range of hours for such activities as teaching, preparation, advising students, committee work,

administrative tasks, research and consultation. The majority of the survey dealt with faculty perceptions of various aspects of college life. Data on time spent teaching can be correlated with the NSOPF 1988 survey, although the HERI did not breakout all the different Carnegie classifications. (Table 2)

Table 2

Hours per Week Spent on Classroom Teaching

	All	Carnegie Classification					All 4-year
		Research	Doctoral	Comprehensive	Liberal Arts	All 2-year	
NSOPF (1988)	9.8	6.4	8.5	10.6	10.6	15.2	8.5
HERI (89 - 90)	10.5	7.4 (universities)			10.9 (4 yr)	16.0	9.5

(Russell, 1992, p. 9)

*SHEEO 1992* The State Higher Education Executive Officers (SHEEO) conducted a survey of its members in 1992. The study's focus was faculty total hourly work week, how much time is spent on teaching, and how this time has changed relative to research. The membership of SHEEO "includes the statewide higher education boards of 49 states, the District of Columbia and Puerto Rico." (Russell, 1992, p. 2) This makes the study unique in that the faculty themselves were not surveyed, only the policy makers. No real hard numbers concerning workload were generated by this survey, but the survey asked several questions concerning workload studies, how they are collected, and what they are used for in the various states. An inherent problem demonstrated by this survey is that there is no standard method of data collection and question content. Therefore it is difficult and sometimes impossible to correlate the results. (Table 3) The SHEEO report demonstrates this in the section that reported examples of state studies. Among the states using contact hours are Arizona, the Community Colleges Service Unit of the Michigan State Department

of Education, the Joint State Government Commission of the General Assembly in Pennsylvania, and the State Council of Higher Education for Virginia. Those using total hours worked per week are California State University System, the Pennsylvania and Virginia State systems, and the Iowa State Board of Regents.

Table 3

Key Findings of State Studies

	Hours per Week			Percent Time Devoted to Instruction
	Total	Contact	SCH or Teaching Load	
Arizona	56.3	6.9	7.2	46.9%
California	48		11.0	61%
Colorado		11.8	19.2	
Florida			10.6	62.7%
Iowa	56 - 58		6.3 - 8.1	57 - 72%
Mississippi				74%
Nevada	58 - 60		9.2 - 16	60 - 77%
Oklahoma	57.6		6.4 - 15.2	56%
Pennsylvania	53	9.7		52%
Tennessee			10.2	72%
Virginia	52	12.8	7.8	55%

Information obtained from (Russell, 1992, pp. 43-46), (1993, p. 4), (Mingle, 1992), (Muncaster, Vehik, Nazemetz, Binning, Clifford, Hawthorne, & Brattin, 1993, p. 2-6), (Allen, 1995, pp. 23-29) and (Jordan & Layzell, 1992, p. 12)

The University of Hawaii, the University of Nebraska, Pennsylvania, and the Tennessee Board of Regents use a student credit hour (SCH) database or teaching load hours. Unique reporting methods include faculty credit hours, used by the Illinois Board of Higher Education and courses per semester, used by the California State University. The Mississippi Board of Trustees of State

Institutions of Higher Learning looks at only activities supported by the instructional portion of the budget, and the University of Wisconsin is also unique in reporting course credits per FTE. Finally those that report total number of hours usually also report out the percentage of time devoted to instruction.

The need for standardization is emphasized in the SHEEO report recommendations for future information needs. (Table 4) "Over three quarters of our respondents felt that commonly accepted methods for determining faculty workload would be useful; this would address issues of teaching loads, research efforts and other faculty activities, for example, in a consistent way." (Russell, 1992, p. 47) SHEEO is in the process of developing guidelines for collection, analysis, exchange and interpretation of faculty and staff workload data as well as standard definitions.

Table 4

Future Information Needs Related to Faculty Issues (including multiple responses)

Recommended Informational Needs	Percent of Total (N=62)
1. Common methodologies for determining faculty workload	79%
2. Access to existing national data sets of faculty for comparative purposes	68%
3. Common definitions for faculty data elements	60%
4. Structures for multi-state data sharing of faculty data	52%
5. Technical assistance to set up faculty data system/ develop software	21%
6. Other	6%

(Russell, 1992, p. 40)

As is demonstrated by the above surveys, the two ways of collecting workload data are either using existing administrative records or collecting data from the faculty. Self reporting of data has been challenged due to the perceived

inconsistencies. "Because faculty members answer only to themselves about most of their time, there is no clearly feasible alternative to self-reports if researchers want to know how faculty spend their time; yet for the same reason, the public is apt to discount such assessments." (Miller, 1994, p. 11) However, looking at the results of the surveys listed above, the consistency of results indicates that faculty accurately report their activities. One section entitled "Perceptions of Faculty Workload" in Faculty Workload: Research, Theory, and Interpretation by Yuker (1984) describes the self reporting nature of most workload surveys by indicating how faculty and students estimate the number of hours that are spent which is also described by Jordan (1994) as activity reporting.

The other way of collecting data is through institutional reports. Credit hours, contact hours, credit hours per semester per FTE, and student-faculty ratios are examples of data that can be culled directly from institutional reports. "Although there are problems attendant to the use of faculty reports, this data tends to be superior to that obtained from institutional records." (Yuker, 1974, p. 1) Institutional reporting may be statewide in the case of several states that have developed statewide student databases. The SHEEO survey undertook to ask where data for faculty workload is usually collected. The results (Table 5) indicate that most states use institutionally generated self-reporting faculty workload data over institutional reports either from each institution or collected statewide such as student credit hour databases.

Table 5

Primary Sources for Data Collection Efforts (including multiple responses)

Where Data for Faculty Workload Collected	Percent of Total (N=57)
1. Institutional faculty workload data	49%
2. Institutional student credit hour database	46%
3. State or systemwide student credit hour database	42%
4. State or systemwide faculty workload data	26%
5. Other	7%

(Russell, 1992, pg. 40)

One of the common ways to collect faculty workload data is through activity reporting. In activity reporting "A work period is specified (one day or one week, for example) and faculty report the amount of time they spend on each activity for which there is a standard definition in the report." (Jordan, 1994, p. 16) Most institutions that use this method quantify faculty workload around the traditional tripartite mission of teaching, research or scholarship, and service. While these three categories are almost universally accepted the definitions within each category can differ greatly. "The consequence of definitional differences is that only limited analysis primarily related to mission and comparisons of workload can be made among the various workload studies." (pp. 17-18)

A second way of collecting workload data is by using student credit hours. "Faculty workload is usually defined in terms of assigned credit hours." (Yuker, 1984, p. 9) Since credit hours invariably take the faculty member away from consulting, research and other personal activities, the credit hours each

institution will assign as a load presents a picture of the weight teaching has at that institution. If the semester workload is fifteen credit hours at one college and six at another, one can assume that the first has a mission of teaching where the second has some other mission. "... many studies show that the ratio of total hours worked to credit hours is not constant." (Yuker, 1974, p. 10) Some institutions try to find ways to weight the credit hours or report it in a form that is comprehensible to all people. For example, Colorado reports out the average course credit hours and then converts it to equivalent number of three credit hour courses taught per academic year. However, the use of credit hours as a measure of faculty workload is questioned. In 1970 the Interuniversity Council stated, "The use of the 'credit hours' as a standard criterion for evaluating an individual's contribution to the work of his university is even less appropriate now that it was ten years ago and it was clearly inappropriate then." (Yuker, 1984, p. 9)

The use of student credit hours (SCH) per full-time equivalent (FTE) is usually used as a measure of productivity. Using it for the collection of workload data shows the confusion between what is workload and what is productivity. Student credit hours per FTE is an attempt to weight workload so it can be used intra-departmentally to make comparisons. "...comparisons can only be made when the data have been collected using similar definitions and similar data collection techniques." (Yuker, 1974, p. 11) This method of reporting has found a receptive audience in the financial community of the academy. Institutions can compare cost per student credit hour between departments and between



institutions. However, it should be pointed out that different disciplines have different inherent costs. For example, medicine can be one of the most costly disciplines but can also attract highly qualified faculty and students. Also this approach emphasizes the instructional function to the exclusion of service and research.

The use of contact hours seems to rank second to actual semester hours for defining workload. It is an attempt to eliminate the arbitrary number set for courses by having faculty report the exact number of hours adjusted for different categories such as laboratories, studios, seminars, clinical instruction and other courses that meet either more or less than the stated credit hours assigned to them. The Colorado Commission on Higher Education typically defines workload "as a percentage of time and effort distributed across teaching, research or scholarship, and service." (O'Brien, 1993, p. 9) The teaching component is expressed as the number of courses taught or the number of contact hours spent in the classroom. The definition of public service is especially hard. Not all disciplines can provide service to the public and those that can provide the service do so in many different ways.

Student-faculty ratios are not traditionally used as a measure of workload but have been used to measure institutional quality with varying results. Since it is a ratio, it also is more of a measure of productivity than of pure workload. Colorado Commission reports percentage of students taught by full-time faculty and the number of students taught by part-time faculty and then further breaks this down into the different types of instruction. The idea is that reducing the

number of students for each faculty member may have some impact on quality, but "...the lower the ratio of student to teacher in particular subjects, the higher the quality of instruction has never been substantiated." (Yuker, 1974, p. 12) Yet there are studies that show that even with wide variation of student/faculty ratios, instruction "can on some reasonable objective basis be rated similar in quality". (Education, 1972, p. 63)

Other studies of higher education use different formulas to quantify workload. Some workload studies use average number of hours worked in a week as the determinant factor of workload. " A 1988 study by the National Center for Education Statistics found that faculty at all types of institutions on the average worked 53 hours a week." (Committee, 1993, p. 2) "Oklahoma faculty work an average of 57.6 hours per week." (p. 7) The time spent can be further broken down into percentages to help clarify the distribution of workload. For example, "Oklahoma faculty spend 68 percent of their time on instruction, preparing for classes, and counseling students..." (p. 7) Another way of looking at workload is the number of students taught. Colorado uses average class size to compare loads at different levels of academic preparation. Faculty course load is a basic and very popular way of measuring faculty workload and is done in various ways. Virginia Commonwealth University uses a marriage of enrollment data and faculty data to compute faculty course loads. In the past, Colorado State used the Comparative Staffing Unit (CSU) to itemize instructional workload. "The CSU was a weighted scale designed to measure the professional input necessary to carry out specific activities. An average workload for a year was set

at 1,000 CSUs, based on an average 50-hour work week." (Byrd Jr., 1994, p. 74)

Penn State's Behrend College devised a point-based system based on the three elements of classroom contact time, grading and evaluation time, and laboratory and practicum time. This system measured class assigned, not actual classes, making adjustments for repeated sections, large enrollments, and team teaching. "Actual workloads are compared with calculated standard workload for a full-time math faculty member." (p. 74)

Northern Arizona uses a system that divides workload into three distinct components of direct instruction, indirect instruction, and noninstructional activities. The University of Connecticut is one of the few examples where a comprehensive faculty workload system is used for an entire system. This model quantifies scholarship, teaching, and service activities derived from data collected from institutional reports and faculty collected data. What is unique is that the departments are responsible for compiling most of the data and also for setting the evaluation goals. The data is used to trend departmental productivity and is not used to provide data on the performance of individual faculty.

Some institutions use a combination of methods. The Colorado Commission on Higher Education uses "the average number of weekly faculty contact hours, course credit hours and student credit hours." (Nuzum, 1994, p. 1)

The Colorado Commission also distinguishes between a traditional delivery mode which include lecture and laboratory and other modes which include individualized type of instructions. Although quantitative collection of workload data is by far the most popular method, there are some examples of qualitative

workload data collection. Wergin (1994) edited a book entitled Analyzing Faculty Workload that includes several chapters of interest concerning qualitative studies. One chapter explains that there are two methodologies used to report workload, activity reporting and equivalency reporting. However, each of these methodologies is "the quantification of faculty workload within the traditional tripartite mission of instruction, research, and service". (Jordan, 1994, p. 17) Another chapter tries to incorporate some qualitative aspects of research by investigating the perceptions of faculty of time. It used three general cultural models which included linear-separable, circular-traditional, and procedural-traditional. These cultural orientations identify the behavior within an organization. Finally the various orientations were matched with campus culture. This line of research helped to distinguish between qualitative overload, experienced by faculty when they do things for the first time, and quantitative overload, experienced by faculty who are high in achievement and over extend themselves. However, the methods of data collection were mostly quantitative in nature. (Lawrence, 1994) Finally there was a chapter that included a case study of one institution. However, the case study proved to be another quantitative study which basically asked the faculty to keep track of time spent doing various activities. The only aspect that seemed to have a qualitative approach was that the faculty were asked to keep diaries. The diaries were used to help link the time spent and give insight into the complexities of faculty work. The results, however were reported out strictly in a quantitative manner. (Glazer & Henry, 1994)

Gray and Diamond (1994) in the chapter on "Defining Faculty Work" list many recent studies of faculty workload. Again, each study listed is quantitative in nature. However, the authors indicate that numerical values are conceptualized only when included with personal perspectives. Two qualitative studies were cited. These two studies are the Syracuse Survey which collected campus culture and faculty's perceptions. In the two phases of work the study will generate hopefully over 50,000 responses. The American Assembly of Collegiate Schools of Business (AACSB) survey asked faculty their perceptions of their activities and to place a value on these activities. The authors admit "Information gathered by the review of official documents and data bases as well as that collected using qualitative and survey methods can provide as basis for discussion regarding the redefinition of faculty work at the unit level". (p. 75) This type of synthesis can be used as a reality check for tools that gather numerical information by comparing and contrasting " the picture presented by the document and data base analyses with personal histories and perceptions". (p. 75)

#### Productivity Studies

For the most part, productivity studies look at research productivity. "Faculty productivity has traditionally been defined as research productivity, or the number of publications produced in a year or a lifetime." (Meyer, 1998, p. 48-49) This narrow definition of what is faculty productivity has been challenged in recent years. More and more studies try to indicate that productivity is not just the number of publications. However, while "faculty do care about productivity

and work hard to produce it,...they value research productivity highly and instructional productivity to a lesser extent." (p. 51)

Using Boyer's ideas from Scholarship Reconsidered Kent State University developed a faculty productivity worksheet that married the four areas of scholarship; research, integration, application, and teaching; with conventional workload study areas such as hours per week of instruction, academic advising, and administrative work. These were supplemented with faculty logs and other workload studies. Kent State then used the numbers generated by the study with student-faculty ratios to generate appropriate workload and productivity expectations for a department or school instead of for specific faculty. The study found "that using the academic department or school as the unit of analysis yield a far more accurate picture of overall faculty productivity than workload analyses that focus on individual faculty". (Glazer & Henry, 1994, p. 52)

When measuring productivity, many academics revert back to what promotion and tenure committees find productive - research and publications. Classically the level of faculty productivity is determined by "(a) the number of articles published in academic or professional journals...(b) the number of articles in edited collections or volumes...(c) the number of books or monographs published or edited alone, or in collaboration...(d) the number of professional writings published or accepted for publication...and (e) the receipt of external research support ..." (Bailey, 1992, p. 3) The number of publications is the "scale" method of measuring productivity. All the above work is placed on a scale and the one with the highest number is the most productive. Not only does the scale

method do little to qualify what is done, but it misses the other forms of scholarship, application and teaching, as described by Boyer.

#### Uses of Workload Data and Productivity Measurements

Once collected and calculated, workload data and productivity measurements are usually applied in some way. It is the application of the numbers that generates the most controversy. Faculty understand that administrators must justify their existence through the collection of the data. Faculty, however, have show an obvious distrust of the use of the data by administrators and a fear when the data is released to the public. Data gathered from workload and productivity should be used wisely to justify the established goals and mission of the institution.

The mission statements of some institutions are "often perceived as vague platitudes chiseled over the entrance to a school or articulated at the beginning of recruitment and printed in public relations materials." (Gray & Diamond, 1994, p. 75) Gray and Diamond feel that mission statements should contain three elements. These elements are the purpose, a general description of the faculty responsibilities, and the relative importance of various faculty functions. But since each institution and even each unit within an institution is unique in many ways, the mission statements will differ. "A major challenge for institutional researchers is to help the leadership team focus on the most relevant information and develop models that reflect a synthesis of all the quantitative and qualitative information gathered about an institution and its units into succinct and meaningful mission statements." (p. 76) Also, there may be a "mismatch between the current mission of higher education institutions and the public's perception of what they should be doing (and what legislatures are willing to support)." (Meyer, 1998, p. 67)

Assuming that one can generate a meaningful and succinct mission statement, the workload and productivity measurements of the faculty should reflect the stated mission of the institution and also be reflected in the personnel policies and reward structure.

The right balance of faculty priorities depends on the mission of their institution. Where that mission is clearly articulated, and the facts about how the institution's faculty spend their time are known, a sound and defensible case can be made by a college or university in response to outside questions, whether they come from government or the public. (Fuller, 1994, p. 1)

What is stated in the above quote is most often not the case. Because of inconsistencies in the definition of workload and inconsistent use of collected data to assess the furthering of the institutional mission, workload allocations frequently do not support the stated institutional mission.

"The most profound difficulty in professionalizing teaching in higher education is that most of the rewards of teaching are intrinsic while a significant amount of the rewards of research are extrinsic - for example, recognition of colleagues." (Bess, 1997, p. 432) Research also affects a faculty member's career and helps faculty transcend their local campus by becoming well known.

Published research leads to promotion and tenure. Higher salaries come with publications. Administrators like you. Neighbors see your picture in the local paper. Seeing your name in print supplies a momentary high. Many good things happen to those who publish. (Blackburn & Lawrence, 1995, p. 116)

Yet the HERI survey described earlier asked all respondents to rate the importance of a set of personal/professional goals. The results showed that 98% rated being a good teacher as a very important goal while only 59% rated engaging in research as a very important goal. While respondents at universities gave higher rating for research than respondents at two-year colleges, what was interesting was that the university respondents also rated being a good teacher



very high (98% for public and 96% for private). "It would thus appear that the high priority given research by professors in universities causes them to give lower priority to practically all other major goals, with the possible exception of teaching." (Astin, 1991, p. 10) Many institutions have a stated mission of a balance between teaching, scholarship and research, and service; but the workload distribution may be skewed to research since that is the measure by which the faculty are rewarded with promotion and tenure.

Professors are one of the hardest working, most driven groups in our society. In quiet offices of the elite universities they are, when not consulting and making money on the side, intently absorbed in the game of academic research, running faster and faster on the accelerating treadmill of publication. That's because academe's reward and riches - salary increases, promotions, prestige - come not from brilliant teaching but from the number of articles researched, written, published - and then largely forgotten. (Fuller, 1994, p. 5)

Also it is difficult to understand what exactly constitutes good teaching. "First, there are no clear products that result from teaching that can be measured, as can published articles in scholarly journals. Secondly, faculty cannot obtain consensus on what constitutes high-quality teaching." (Blackburn & Lawrence, 1995, p. 177)

To the defense of the faculty, the allocations by outside foundations and government agencies perpetuated this mind set. However, since faculty committees decide the academic direction of the institution and usually make initial promotion decisions, the faculty themselves are largely responsible for the direction the reward structure has taken. In fact several recent studies show that faculty members feel that research has been given too much weight and teaching should be increased. (Boyer, 1990; Fuller, 1994) Not all studies show that research is receiving the majority of time. "Studies show that faculty members spend about half to 56 percent of their time on students in the classroom,

preparing for classes, grading papers, and testing." (Committee, 1993, p. 2) It is incumbent upon universities "to 'customize' our delivery system, not to eliminate the model of faculty as researcher, but to add equally-competitive and attractive models that will motivate and reward different kinds of productivity to serve society's needs." (Mingle, 1992, p. 17)

Heydinger and Simsek point out that faculty and institutions respond to whatever incentives are placed before them. When the incentives change, the responses change. During the clergy period of American higher education, teaching was rewarded and, therefore, predominated. Since both institutions with internal promotion policies and grants, and the state and federal government with their grants, reward research over teaching, is it any surprise that faculty respond? With the new resurgence of teaching as a primary concern, if the public and institutions want the have faculty to respond, teaching should be rewarded as much if not more than research. Societal and legislative pressures are pushing in that direction. When you look at other professionals who have similar autonomy both physicians and attorneys are mentioned. Both of these professions measure productivity in terms of income. Likewise both of these professions have experienced similar societal and legislative forces to curb expenses. These forces brings them to two observations. "Linking productivity measures directly to a large portion of income is a powerful incentive... and ... Those who pay the bills will ultimately find ways to intercede to hold down costs." (Heydinger & Simsek, 1992, p. 18) Likewise it is necessary to identify the objectives and customers of the institution to avoid confusion over what productivity means. "Professors work very hard to be productive according to the academy's general accepted criteria." What is necessary is to better define this criteria.

The administration is the key player in assuring that the workload is distributed to meet the stated mission. "Because such variations in talent are inevitable, it is the responsibility of deans and department chairs to ensure that available talents are distributed among the faculty workload component in the most effective manner possible." (O'Brien, 1993, p. 21) It is important to remember that not all faculty are stellar researchers. The institution's administration must assure the most effective and efficient distribution of the various kinds of workload.

Many external forces are pushing changes on higher education and as a result are changing the faculty workload. One of the major forces of change are the students themselves. The student movement to change higher education led to a shorter academic calendar. Faculty are also being presented with a student body that is dramatically different than twenty-five years ago. "The experience of American college students, who constitute a major component of the 'working conditions' in higher education, represent a stark contrast. Unlike their teachers, students have changed dramatically in the past twenty-five years in terms of gender, age, and ethnicity." (Stetar & Finkelstein, 1997, p. 288) These changes coupled with the other external changes of cost control are reshaping the faculty workload. "...the external forces pushing on the academy today are viewed by higher education as constraining, not expanding forces. Interestingly, this is not true of public policy makers. From their perspective, these external forces will push higher education toward controlling costs while extending its reach. In today's parlance, this is the expectation to do more with less." (Mingle & Heydinger, 1994, p. 86)

Workload data has found increasing usage in higher education. "Faculty salaries constitute the single largest expenditure in your budgets and for the state

as a whole..." (Mingle, 1992, p. 2) The use of workload data is verified with the SHEEO survey that asked how the state boards used faculty workload data. (see table 6) At the top of the list is that 84% of the boards reported using the data for accountability requirements which validates the fact "that higher education executives address faculty workload issues within a broad framework of accountability, not as isolated issues." (Russell, 1992, p. 42) After accountability, 51% of the boards use the data for instructional cost analysis, and 46% of the boards use faculty workload data for budgetary and resource decisions. The call for increased productivity matched with the decreased public trust in higher education has made workload data important in areas such as collective bargaining, legislative initiatives, and dealing with internal and public relations.

Table 6

Uses of Faculty Workload Data (includes multiple responses)

How Faculty Workload Data is Used	Percent of Total (N=57)
1. Accountability requirements	84%
2. Instructional cost analysis	51%
3. Budgetary or resource decisions	46%
4. Equity issues	28%
5. Collective bargaining	14%
6. Other	10%

(Russell, 1992, p. 41)

Workload has become so linked with collective bargaining that when faculty and administration members were interviewed about their perceptions of faculty workload, three of the five "started to define workload narrowly as it relates to union bargaining..." (Clark, 1996, p. 25) Many times workload policies

are negotiated at the board level among system governing boards. While the policies are usually set at the board level, actual faculty workloads are most often worked out individually within the institution and department.

...with tightened resources we may see higher teaching loads, larger class size, more stress on basic, core courses and fewer electives (which provide more intrinsic rewards for faculty), and more demanding students. What we may have is a vicious cycle with increasing task (quantity) demands on the faculty and decreasing rewards... One result could be formal, negotiated agreements between administrators, faculty and students on teaching activities that can be quantified: class size, number of office hours per week, limits on graded assignments, limits on outside consulting, and so on. Finally, optional faculty activities that contribute to the students' quality of life (participation in social events, counseling and advising, independent study courses being available for informal discussion) may also decrease and, in turn, become the subject of negotiated, quantified requirements. (Hall & Bazerman, 1997, p. 183)

Workload in collective bargaining does not deal with hours of work; rather the most common way of expressing faculty workload in a contract is in credit hours taught or number of classes. The agreements usually define workload in very general terms and contain "minimum and/or maximum workloads" which can either benefit the employer as in the former or the faculty as in the later. (Yuker, 1984, p. 3)

Other major consumers of workload data are the state and federal legislatures. Over the last several decades there has been a reversal of attitude about public financing. While the level of taxation has remained relatively constant, the uses of tax money has changed dramatically. There has been a shift to other social costs such as aging, crime, and health care. The major change has been in paying for the aging society. Coupled with the decreased support for education from government has been a major attitude change concerning tuition. "Interestingly, public polls do not show the same concern

about quality in higher education, but there is great anxiety about the price.”  
(Mingle & Heydinger, 1994, p. 87)

Most states have some workload reporting criteria. In the last decade some states such as California, Florida, Hawaii, Kentucky, Maryland, Minnesota, Nevada and Texas have gone so far as to legislate minimum faculty teaching loads. The Ohio Board of Regents was directed to “develop standards for instructional workloads for full-time and part-time faculty in keeping with the universities’ mission and with special emphasis on undergraduate experience...”  
(Fuller, 1994, p. 12) A recent survey found that many state legislatures have initiated studies of faculty workload. (Committee, 1993)

Another use for workload studies is planning for enrollment growth by examining the effects of changing workload. Arizona currently uses workload studies to examine how much could be saved by increasing the workload across the board for faculty. “If one course is added to the workload, the number of tenure-track faculty required for a campus of 10,000 FTE students is reduced by 72 FTE faculty, a savings of \$4.5 million. If the course load is increased to eight courses per year, an increase of three courses per faculty member, the tenure-track faculty requirements are reduced by 162 FTE faculty, a savings of \$10.1 million per year.” (Jordan, 1994, p. 21) This could become commonplace as states scramble to try to balance shrinking budgets. Some systems link enrollment and workload to assure equity of teaching assignments.

As was demonstrated before, the pressures to increase productivity in higher education are growing stronger each day. “Indeed, questions about the productivity of colleges and universities are fueled by bottom-line concerns of taxpayers, legislators, parents, and students about rising tuition costs, the job readiness of college graduates, and the perception that universities need to

tighten their fiscal management, just as private business has been forced to do." (Allison, 1995, p. 2) It is evident that the public wants quality higher education, especially undergraduate education, but are equally concerned with costs and accountability. Using productivity measurements, higher education tries to justify the money being spent. "Complex and powerful, the assessment movement in postsecondary education began to assume significant proportions in the mid-1980's. The movement's impetus flows from two distinct but intertwined objectives: to promote quality (which, as a practical matter, has meant improving undergraduate education), and to assure accountability, that is to insist that educational effectiveness - meaning results - be demonstrated to those who pay the bills." (Schuster, 1997, pp. 369-370)

Often the use of productivity measurements can have a ripple effect on workload. The simplified "knee-jerk" reaction to the decreasing revenues and increasing call for increased productivity is to increase faculty workload. "...the president of the University of Oregon held a press conference to announce his intention of meeting increased budget pressures by increasing tuition and admitting twelve hundred additional students to the university without increasing the size of the faculty or the instructional staff. The University of Oregon, like most business corporations, is seeking to attain far greater productivity, albeit by a somewhat different method." (Mowday & Nam, 1997, p. 111)

#### Use of Productivity for Accountability

There are various reasons why accountability is becoming such a popular term in higher education. "The appealing concept of accountability in higher education also caught the interest of the public in general and state administrators and politicians who have to decide upon the allocation of public resources to higher education and other public activities." (Hufner, 1991, p. 55)

With the dramatic increase in students there has been a corresponding increase in the amount of money being spent on higher education. Whether these increases are in the form of tuition, government grants or loans, direct government payment, or funds from the private sector, the increased money spent on higher education has caught the attention of the public. "By nature labor-intensive, tertiary education's relative cost per unit were rising very fast. Due to its size and economic impact, economist started to treat education as an industry." (Hufner, 1991, p. 47) However, many governments are treating higher education as a mature industry that does not need the economic support of the government. As higher education is forced to institute or raise tuition to make up for the lack of support from the government, the visibility to the public is increasing. This increased visibility has led to an increase in the scrutiny of how the money is being spent, a call for increased productivity, and the call for accountability.

Due to recessions, governments are striving to decrease cost to the public. The need to decrease costs has led to questions of efficiency and effectiveness of higher education. In the face of decreasing revenues institutions will have to contend with the question of appropriateness of the programs being offered. The decrease in revenues becomes even more important if there is an increase in unemployment due to recession. "The tertiary education sector not only faces increasing noneducational competition for tax money, but also heavy intrasectoral competition within national systems of higher education." (p. 47) This competition and increased scrutiny has the public raising questions concerning the activities of higher education. Higher education finds itself trying to market its effectiveness in the face of public cries for reform. Reform is a natural extension of the desire of the public to control higher education. "At the



same time those within the university, and particularly the senior academic staff, often see reform as a threat, not only to established academic values, but also to the concept of academic autonomy." (Altbach, 1991, p. 261) At the 1981 OECD Intergovernmental Conference on Policies for Higher Education the conclusion was that tertiary education must be reappraised. "...the crisis of higher education is not merely one of public confidence vis-à-vis the performance of higher education; it is also, and perhaps more fundamentally, an internal crisis of purpose, that is one which touches on the very nature of individual institutions, their roles and functions, and their place in the total education system." (Hufner, 1991, p. 48)

To measure efficiency, effectiveness, accountability or productivity it is necessary to have something to measure. The introduction of accountability implies that performance indicators will be applied to compare and/or measure efficiency and/or effectiveness. These indicators for the measurement of performance will differ according to level and function which, in turn, depends upon the purpose of accountability. In higher education, there is the use of internal accountability as well as external accountability. Internal accountability is well known to most academics because it is the self-evaluation that takes place almost constantly to try to improve. However, all of us know the stories of withered professors teaching the same material year after year from yellowed notes. That is why external accountability is also important. External accountability can take on various methods such as evaluation by peers done at the request of the college or a forced evaluation by external reviewers. Whichever the method of accountability, it is necessary to have some concrete measurement.

Most inputs in higher education are easily identified and measured. However, "it is a truism of measurement that we measure what we can, not what we ought." (Meyer, 1998, p. 55) With the great variety of objectives in higher education, it is difficult to apply one simple criterion for measuring success. However, there is a constant search for a single measurable output. "Thus, it is important that higher education undertake to define its product: what skills, knowledge, and competencies – and level of proficiency for each – we expect our graduates to process." (p. 65) A popular function that is described as a measurable output of education is the achievement of individual students. Student performance was the underlying model for the Coleman Report in the United States and other international reports. The reason student performance has gained such popularity is that it is measurable to a greater extent than the other more ethereal objective of education. Also, student performance is preferred because it can be measured in a reasonable period of time instead of waiting a decade or two to measure the economic performance of the graduates. "Data and analytical necessities dictate concentration on immediate measures of student performance such as test scores. Other research, however, indicates that these in-school measures are related to subsequent performance in the labor market and they are thus reasonable proxies of economic pertinent skills." (Husen & Postlethwaite, 1994, p. 1757) This notion of measuring students' achievement and relating that to productivity and potential earnings is gaining broad support. External sources of accountability are pressing for clearly measured outcomes and for higher education to take responsibility for these outcomes. "Those who demand some form of accountability in higher education assume that clearer responsibilities can be fixed, that more fundamental thinking about means and ends and the transformation processes in higher education

could take place, and that more sophisticated management and evaluation tools than those used in the past can be developed and intelligently applied." (Hufner, 1991, p. 49)

The internal sources in higher education are regularly inconsistent when trying to describe their objectives and outputs. Accountability must not only relate to organization, but also relate to all the functions present in higher education. So there is the classical accountability of teaching, research and service that have been universally understood. Add to these the newer accountability factors such as learning, fiscal, and administrative. These are not directly related to the academic staff, so in the past they have been reluctant to accept responsibility for them. Learning is primarily related to the student population and the last two to the administrative staff. But all six of these are now combined for accountability purposes with the application of performance indicators to measure effectiveness and efficiency. This new formula goes against the traditional social values of higher education. "The three social values of higher education – namely that institutions act as gatekeepers of professions; they serve as sanctuaries for free and scholarly inquiry; and their role as communities of scholars, students, administrators and alumni – take us far beyond this relatively (although undoubtedly important) realm of economic value." (Lategan, 1997, p. 98) These values do not lend themselves to accountability in economic terms. So if you use the definition of quality as the most value for the money or the most efficient use of inputs, "the focus should rather be on the promotion of quality and not meeting absolute, predetermined standards or control of standards." (p. 98)

### Limitations of Workload Data and Productivity Measurements

In a perfect world all the data collected and measurements calculated would be a perfect representation and lack inconsistencies that would call into question the results. Since this is not a perfect world, the limitations of workload and productivity must be understood and appreciated.

One of the major problems with workload studies is that each state and sometimes each institution within a state define workload components in different terms. "Different studies use different definitions for similar terms (teaching may mean only direct classroom instruction in one study but include several support activities in another), so direct comparisons of results are not possible." (Meyer, 1998, p. 40) Also there seem to be many inconsistencies when reporting activities such as scholarship and service. "While teaching workload is typically defined as the number of classes taught or the number of faculty contact hours, no similar measures exist for research and service activities." (O'Brien, 1993, p. 3)

One common limitation deals with time which can include the academic calendar, time period covered in study, and time of administration. One of the areas of inconsistency is that some institutions report data for only the formal academic calendar. Most academic years average no more than thirty weeks. If one was to convert that into a calendar year, the "proportion of faculty time devoted to teaching (and preparation for teaching) would be even smaller in comparison to that spent on research, consulting and leisure." (Fuller, 1994, p. 3) This reduction of the academic calendar can be traced to a response to student demands to "fit half of the academic year between Labor Day and Christmas, and accept the reality that the break for Thanksgiving extends for a full week." (pp. 7-8) The time period covered also affect the results. Many studies cover a small

period time (like one week) and then use the data to project the entire year. Jordan states that a work week is the preferred measurement because it is "long enough to capture all of the activities a faculty member might engage in during a finite period of time" and that "most people can relate to the concept of a work week". (Jordan, 1994, p. 18) He assumes that the analysis is based upon a typical work week. It is necessary to use a small enough time period that will not unduly encumber the faculty trying to complete the survey, but if the faculty is having an atypical week or month, then this will skew the results. "Thus it is desirable to study a quarter or semester, since shorter periods may be misleading." (Yuker, 1974, p. 26) Yuker (1984) in his book Faculty Workload: Research, Theory and Interpretation states, "To minimize negative reactions from faculty, the time covered by the study should be the shortest period that will yield accurate data." (pp. 17-18) For an initial survey, the National Center for Higher Education Management Systems recommends "a survey time equal to one academic term" and "that only one term in the academic year be surveyed." (Manning & Romney, 1973, p. 53) Finally the time of administration of the survey is important. The survey can look prospectively, concurrently or retrospectively. Prospective surveys are used when asking faculty to estimate how much time or what percentage of time is spent on various activities. This estimate usually is based on past experiences and has one inherent disadvantage "The individual who prospectively estimates his expenditure of time may either consciously or unconsciously conform to those estimates, which could be either good or bad." (Yuker, 1974, p. 26) Concurrent surveys seem to be the method of choice since they are completed as the activities are being performed. They usually take the form of diaries or logs and can therefore be very cumbersome and time consuming. The National Center for Higher Education Management Systems

studied surveying prospectively and concurrently and found that there was no significant differences in the results. (Manning & Romney, 1973) Retrospective collection of data is widely acknowledged as the easiest to complete by faculty. However, memory can be tricky and could distort the data. The distortion can be minimized by collecting it as soon as possible after the time period to be surveyed.

Other limitations are the purpose of study, cooperation, the sample, collection techniques, and finally the accuracy of the data. If the faculty do not fully understand the purpose of the study, there is the possibility that they may not be truthful in their responses. This lack of understanding leads into the next limitation which is cooperation. Accurate data is collected only when there is cooperation of all involved. Faculty jealously protect their autonomy and may look at any study as an infringement upon their way of life. "The conservative nature of faculty culture also is evident in its resistance to changes in the processes used to document what faculty actually do in their professional work and to evaluate how well they do it." (Gray & Diamond, 1994, p. 66) Therefore it is vital to secure faculty and administrative cooperation to assure accurate results.

The sample population can be a limitation to the results. If the survey includes the entire faculty, the time and effort needed to correlate the results may be prohibitive. Also, if there is a skew in the return with one department having all their faculty return the survey and another department refusing to participate, the conclusions will be faulty. While sampling is less expensive and easier to control, the disadvantages are that the sample may not be representative of the group being described, and the reports are often dismissed by those that did not complete the survey. The National Center for Higher Education Management

Systems "recommends that an institution use a census to collect faculty activity information. NCHEMS believes that most uses of faculty activity information will require data by department or other relatively small grouping of faculty. In this case, the sample size approaches the size of the total population and no benefit from sampling is realized." (Manning & Romney, 1973, p. 57)

The correct use of collection techniques can minimize the limitations of sampling. These techniques can include such activities as self-administered - survey mailed to faculty to complete on their own, group-administered - surveys are completed by groups of faculty under direction, and interviews - individual faculty are interviewed. Use of interviews can minimize the lack of cooperation and increase the response rate, but they are very time consuming and expensive. "Romney advocated the use of interviews as a useful technique for following up and validating the results obtained from questionnaires." (Yuker, 1974, p. 29) The National Center for Higher Education Management Systems "recommends using either the self-administered or group-administered technique. The interview technique provides little benefit over the group technique and is considerably more expensive" (Manning & Romney, 1973, p. 68)

The accuracy of any data collected must be assessed for reliability and validity. Yuker (1984) in Faculty Workload: Research, Theory and Interpretation defines reliability and validity in faculty workload studies. "...reliability is the extent to which similar results would be obtained if measurements were taken at different times...validity in faculty workload studies is the degree to which a faculty member's report corresponds to the way in which the time was actually spent." (p. 25) There has been little attempt by researchers to test the reliability of the data collected. Most rely on the fact that the sample size and time studied

are large enough to make the data collected reliable. Validity studies, however, have been done. To check whether data is valid, it is recommended that several methods of collection are used such as time sampling, diaries, interviews and questionnaires. The order of validity of these methods are time sampling being the most valid, then diaries, and finally interviews and questionnaires. Time sampling is seldom used when studying faculty since it usually involves calling randomly during a period of time to ask what the person is doing at that time or using a device that signals the person to record what he or she is doing at that time. Time sampling is only possible with faculty cooperation and must sample the faculty "eight to ten times during an eight-hour day for three or four weeks." (p. 21) Finally a high percentage return of completed forms is vital to the validity of the study.

Using institutional data to confirm collected data can be important in assuring accurate collection of self-reporting materials. Variations in faculty schedules can result in data that is valid but can not be validated by past surveys. Also much of the self-reported data may suffer from faculty who wish to present themselves as working harder. Different methods and alternative sources should be utilized to check the validity of the data. Standard reported institutional data can be gathered from different required reports and collection procedures. However, "It is recognized that there might well be loud outcries at the use of such techniques to 'check-up' on the individual, but they represent the best way to verify the validity of the data." (Yuker, 1974, p. 32)

The ideal index of productivity is as elusive as the search for the holy grail. We know in our heart that it is out there, but we cannot find it.

Ideally, a productivity index includes all the inputs and a representation of all the outputs to give "total factor productivity." This condition is never achieved and one of two broad



modifications is selected. 'One includes those measures which relate output of a producing enterprise ... to one type of input such as labor, capital, energy, etc. The other includes those which relate output to a combination of inputs extending to a weighted aggregate of all associated inputs.' So there is total factor productivity and single factor productivity, with actual practice falling somewhere between. (Toombs, 1973, p. 7)

Yet the recent emphasis on yielding to external accountability forces higher education to try to come up with some method of demonstrating productivity. "Academic productivity improvement may have become a meaningful goal, but new approaches must be invented." (Massy & Wilger, 1995, p. 11)

Toombs (1973) wrote in Productivity: Burden of Success, "Until about 5 years ago higher education tendered its accounts in an atmosphere of good faith and traditional acceptance. Functions were few and goals were believed to be self-evident." (p. 15) As is common with other service activities higher education has in the past lived by the rule that more money meant higher quality. By the 1990's concerns about the rising costs of higher education assumed a paramount position in the public's eye and led the public to be more concerned about productivity than quality. The spiraling costs of higher education and the increasing cost per student are "prima-facie evidence the productivity has declined. The 4 to 5 percent increases were sufficient to sound alarm bells and provoke author after author to characterize the academy as spendthrift and its faculty as unconcerned about productivity." (Massy & Wilger, 1995, p. 11) Now the emphasis is on independent evaluation and confirmation of outputs using cost-benefit theories. To simplify the process, simple ratios were used and offered by higher education as a starting point. The pressure was then transferred to internal management who now had to explain and in many cases justify these ratios. Higher education management discovered that they had very little in the way of hard verifiable data to use for this justification. One of the

reasons for the explosion of higher education management was the need to collect, interpret, apply, and defend productivity information. Higher education management was then in the unenviable position of having to use this information to make management choices and decisions. Once management decisions were being made from this acquired data, academics became suspicious. Because of the shared governance of higher education, faculty were in the position to stall, block, and in some cases reverse decisions being made using productivity information. The results were a shift in power to "faculty who in the last decade have built a strong pattern of influence over institutional decision." (Toombs, 1973, p. 17) The faculty who have the training and research ability were successful in demonstrating that there were no documented norms and standards for the information being used.

Productivity ratios have come under fire for a number of reasons. Higher education insists that because of its unique aspect, productivity studies are exercises in futility. Higher education is a labor intensive occupation where over 65 to 80 percent of the institutional budget goes for faculty salaries. But these faculty deliver a highly personalized product that differs from class to class. Many in higher education compared themselves to medicine and the justice system which has the same high labor intensity and the same need for innovative people. Since faculty make up such a large portion of the costs, it is tempting to use them as one of the inputs for productivity ratios. As a result faculty effectiveness is usually then measured by some conveniently measured outcome such as student credit hours. Student credit hours may measure instruction, but it is naive to say that credit hours can measure learning which is done. Also, as mentioned above, the simplistic aspect of the values belie the complex nature of higher education by not measuring other aspects of input such as research,

service, and administrative duties. Higher education is also quality intensive. How the input is carried out affects the outcomes substantially. Like an orchestra, the quality of the performance is difficult to measure, but is an integral part of the production. The lack of real outputs also hinders the measurements of higher education. One might describe an outcome of higher education as "knowledge futures ... the commencement of real output for the individual and society ... should not cease until a career has closed. This means that all measures of output at point of graduation are fundamentally incomplete."

(Toombs, 1973, p. 18)

Most times student/faculty ratios are established by accident or as a result of other administrative decisions. During the great expansion of higher education when faculty were scarce, the student/faculty ratios rose with no real apparent change in quality. While smaller classes classically have been sought as the ideal environment for superior learning, "research on the impact of class size on learning has failed to reveal a clearly significant relationship between class size and student achievement." (Education, 1972, p. 65)

One of the obvious shortcomings of productivity studies that are based upon workload are that they measure only the efficiency of the faculty member. Multiplying the number of credits assigned to a course by the number of students enrolled will result in student credit hours (SCH) which is thought by some institutions to be a good measure of faculty productivity. If the school uses SCH, a faculty member can appear more productive by filling the classroom with the greatest number of students. Can anyone really believe that an instructor who teaches one class of three credit hours with one hundred students is as productive as an instructor who teaches five three credit hour classes with twenty

students in each class. The addition of teaching output measures would help to measure effectiveness as well as simple efficiency.

Using ratios as indicators of productivity is common but also has obvious shortcomings. "An emphasis on the ratios of inputs to outputs alone has been called the 'black box', or better, the 'one armed bandit' approach. One pulls the lever (input), reads the window (output), and collects the increased productivity in the form of winnings." (Toombs, 1973, p. 6) Index ratios, such as student-faculty ratios have a long history that is periodically updated. Some ratios that are monetary in nature try to measure "dollar costs of total or selected inputs to students, credit-hours, and degrees" such as unit cost per credit hour. (p. 8) It is possible to come up with almost an infinite variety of ratios. Some common examples are "faculty fulltime equivalent (FTE) to student fulltime equivalent; FTE faculty to student credit hours (SCH); FTE faculty to contact or classroom hours per week or sometimes per term; degrees granted to enrollment; degrees to FTE faculty." (Toombs, 1973, p. 8) The inherent problem with all these ratios is the dependence upon faculty alone. "... as library, computer, support, and administrative functions take an increased role in the educational process, they must be accounted for." (p. 9)

Another limitation of productivity studies is that they are used to increase the productivity of faculty using the oversimplified methods employed historically by corporations which may have adverse affects. "However, it should be obvious that obliging faculty members to be responsible for larger number of students does not necessarily translate into more effective teaching. Indeed, expanded teaching loads may save money but at the expense of teaching effectiveness." (Schuster, 1997, p. 370) This type of panacea will be short lived when the quality of teaching suffers and declines. With high quality education, the public can

afford to be concerned with only the costs, but if the quality also decreases, the public will take notice. "In the face of increasing financial and competitive pressures, neglecting teaching responsibilities or offering students less than high quality instruction will be a luxury that universities can ill afford." (Mowday & Nam, 1997, p. 111)

Another limitation is productivity becoming the defining measure of higher education. If this occurs, the faculty will suffer.

The combination of very tight budget conditions and heightened demand for quality ... may be having a significant effect on faculty morale seems clear. As state after state presses to determine workload measures and how much time faculty members actually spend in contact with undergraduates, the pressure mounts on faculty members to increase the time they devote to teaching. This is so despite workload data trends - albeit hardly conclusive - which show that faculty, generally speaking, are working longer hours and in fact have not been reducing their attention to teaching. (Schuster, 1997, p. 370)

Another aspect of increasing productivity pressures is that the faculty will require the students to do more of their own education. Faced with increasing burdens, the explosion of information, and the need to do more with less, faculty have resorted to requiring students to participate in their education. "In effect, colleges and universities 'employ' students (without salary) to be their own teachers, partly because the predominant organizational model of teaching is one of a dispersed, factory-like attachment of knowledge components to students' intellectual chassis as they proceed through their undergraduate years." (Bess, 1997, p. 429)

One aspect that is missing in almost all productivity studies is student survey response. "All institutions collect and report information to the CCHE (Colorado Commission on Higher Education), in compliance with statute, about student education experience such as availability of academic advising, frequency of essential course offerings, and demand for programs. However,

while these data are used to evaluate the various aspects of student educational experience, they are not used to evaluate faculty teaching productivity." (O'Brien, 1993, p. 5) But even if the inclusion of student outputs are not being used effectively, there are indications that workload studies "are contributing to a shift in focus from the inputs of faculty effort to the outputs of enhanced learning and educational quality." (Jordan, 1994, p. 20)

#### Defending Workload and Productivity

Like medieval cities, colleges and universities find themselves besieged by the public, journalist and legislators. "The ever-increasing role of outside agencies in campus matters is gradually wearing down internal governance structures." (Austin & Gamson, 1983, p. 34) Faculty and administrators find themselves trying to defend the academic way of life against wave upon wave of attack. The attack, however, seems to be directed at more than workload. "Today's critique of current workloads is also a stalking horse for deeper discontents with higher education." (Winkler, 1992, p. 38) The discontent stems from a mistrust of the academy fueled by such topics as autonomy, tenure, workload, productivity, access, and economics. While the public is angry, academics also seem angry. Higher education professionals have done a poor job in public relations and explaining what they do, the many varied tasks they are called upon to perform, and how their work benefits the public. "It should come as no surprise, given this tendency toward feeble explanations, that our critics find ever more potent ways to take potshots at the way we conduct our academic lives." (Winkler, 1992, p. 38) Likewise the lack of explanation of the link between research and teaching has caused the public to question the amount of time academics spend not teaching undergraduate students. The debate is too

heated and involved to disappear. Left unchecked, legislators will impose uniform workload standards on the academy.

The term workload (a combination of the words work and load) demonstrates as well as anything how faculty view the data generated. Yet, many of the studies document that faculty do work long hours. College teachers were rated as the second-highest occupation in intrinsic interest in work, as indicated by hours worked. "Only physicians worked longer hours (52-56 hours for professors vs. 58 hours per week for physicians)." (McKeachie, 1997, p. 26) Faculty can be compared to other professions that do not have specific work weeks. "Faculty are similar to persons in other occupations where individuals are independent workers without prescribed working hours...Such workers (for example, proprietors and physicians) tend to work about 15 hours a week more than regular employees because they tend to be more interested and more involved in what they are doing." (Yuker, 1984, p. 67) The study of faculty workload and productivity must not only address the cold hard quantifiable numbers, but must also address faculty perceptions through qualitative analysis.

Most quantitative studies of faculty time always seem high to the causal observer. "Research on time perceptions helps explain the discrepancies and adds to our understanding of why faculty believe studies of their work habits present distorted portraits." (Lawrence, 1994, p. 33) A qualitative study of time perceptions demonstrated that all faculty felt they never had enough time. "They reported that autonomy with respect to managing time did not translate into an easy job; there were real constraints and pressures to produce that were not evident to the outside observer but regulated how they used unscheduled time." (p. 33) These ideas and perceptions help to explain the frustration some faculty feel when pure time studies are done or the public feels that they are under

worked and over paid. Faculty often report what Lawrence calls "qualitative overload", which is that the perception of not enough time overshadows the actual temporal time available. This demonstrates the importance of including qualitative research with the pure quantitative studies usually done on faculty workload and productivity.

Although the public has been presented with numerous studies that show how hard faculty work, there are two inherent problems. The first is that the public has a hard time understanding the numbers and is somewhat distrustful of them due to the self-reporting nature of most faculty workload surveys. But more importantly, the public is convinced that faculty are not working hard on that which is most needed to be done. "The public is apt to believe that colleges and universities could effect great savings if they adjusted faculty work assignments to reflect what the public thinks faculty ought to be doing, rather than what the faculty member thinks it ought to be doing." (Miller, 1994, p. 8) The public and even some within the academy feel that the reward structure focuses too heavily on research and too little on the students. Also, "many categories most central to scholarly life, such as keeping up with the field and preparing courses, not to mention contemplation, are suspect to the public and clearly subject to ambiguity and even reporting abuse." (Miller, 1994, p. 11)

It is the public that in many ways influences the legislatures concerning higher education; yet, the public has little understanding of what the university professor actually does. Some business men regard the profession as antiquated.

Universities, they say, are the least efficient and most disorganized institutions in our society, chaotic collections of eccentric people held together by a common grievance about parking. Aren't faculty essentially a loose collection of prima donnas, characterized by large egos, quarrelsome and myopic, trained to challenge authority,



whether scientific or scholarly or political, and just generally impossible to manage? Isn't the definition of a professor "one who won't take yes for an answer"? (Carothers, 1992, p. 6)

What the public understands however, are numbers. But when they read that faculty are reporting working over 55 hours each week, they are skeptical. Well done workload studies with data that is verified by other means can go a long way to educate the public and influence the legislators.

Comparing education with corporations may help academic leaders when they talk to the public. However, like all corporations, education must also talk in terms of how they produce. A recent study tried to analyze the effects of academic research with mixed results. "The study finds significant effects of academic research on corporate patents in drugs, medical technology, electronics, optics, and nuclear technology, but it does not undertake to analyze the further steps or to measure overall impacts on productivity growth."

(McMahon, 1993, p. 105) One of the major problems is that higher education conducts a very small percentage of research and development. What is done usually takes longer and is relatively useless in its effect on productivity. Higher education performs more "pure" research that can eventually lead to "applied" research. Yet since research has become the key to promotion and to be promoted the faculty must do research, the public views research as a devil. "The 'productive' faculty member thus holds a doctorate, places a strong value on research, and started publishing early. He or she spends more time in research than teaching, has little commitment to administrative work, and stays in

close contact with colleagues and developments in the discipline." (Austin & Gamson, 1983, p. 38)

The problems of access and affordability have thrust higher education into the forefront of public inspection. With the tuition rate rising faster than the rate of inflation, the public is now scrutinizing higher education and asking the question, "why"? Sluggish state revenues and other entitlement programs such as Medicare, prisons, and primary and secondary education have contributed to the spiraling costs. "In this environment of feast or famine, states have generally lacked mechanisms for controlling cost structures within higher education, as institutions have tended to substitute tuition revenues for losses in state support in times of financial instability." (St. John, 1994, p. 102) However, the public sees the tuition increases as a barrier to access and therefore upward mobility. As a result "at least 23 states have turned their attention, at some level or another, to the idea of closer supervision of higher education." (Miller, 1994, p. 8) There is a saturation point at which the institution finds it difficult to raise tuition. At that point the institution is "faced with the diminishing value of raising tuition, either because it produces little new revenue or you reach the limits of students' willingness or ability to pay." (Mingle, 1992, p. 3)

The maxim higher education used to answer most questions about the allocation of resources was "Trust us we know what is best." (Fuller, 1994, p. 2) The idea that we know best is slowly losing ground as the trust is eroding and the resources are dwindling. "The 'put the money on the stump and trust me' era is gone forever." (Schuster, 1997, p. 369) Many people resent the autonomy that

faculty exercise. "...one experienced university administrator recently wrote 'I have concluded that the way in which faculty members choose how and when to perform their academic functions most closely resembles the behaviors of volunteers. For faculty members, all work other than teaching classes is optional.'" (Fuller, 1994, p. 2)

Productivity ratios have two advantages that make them popular in higher education. The first is that the public unfamiliar with the complexities of higher education understand the concept and even the simplistic coupling of indicators. While on the surface or taken singularly they may be meaningless, when compared with other institutions or with past years of the same institution, the ratios can project a clear trend. Likewise productivity ratios are popular because of the infinite variety of indicators that can be coupled. If one coupling does not help your cause or indicate what you need to sell, couple others with it. This range of applications can also be used in units as small as departments up to units as large as statewide systems or countrywide comparisons. The limitations of productivity ratios is what they measure, how they are interpreted, and how they are applied. Since as said above you can not include all inputs and outputs, the productivity ratios used are usually missing vital measurement parts that skew the data. Also, many productivity ratios measure specific performance objectives without taking into account whether they can be measured across the entire system or if they measure productivities that are central to the goals and mission of the institution. Finally, all data that is collected when used for productivity ratios is historical in nature and may stay stable during the

measurement process because the organization knows they are being measured. "... input-output analysis is a good place to start, but we should not expect it to yield sophisticated results." (Toombs, 1973, p. 14)

Heydinger and Simek propose an agenda for reshaping productivity which has eight parts.

- Recognize the long term importance of academic freedom by protecting tenure, but dramatically increase the proportion of annual personal rewards which must be earned each year
- Develop clear expectations for individual productivity and hold faculty accountable for meeting these expectations.
- Retain the current flexibility for individual faculty members to set their own professional agenda.
- Offer individual incentives and rewards that strongly reinforce **institutional** or **departmental** objectives, thereby strengthening mission differential.
- Integrate into the organization the responsibility for managing **both** revenue and costs
- Recognize that the set of rewards available to the institution go far beyond the usual focus on financial compensation.
- Empower those we serve so that they can directly assist in executing this agenda.
- Administrators must "manage to" institutional objectives and value creation rather than promulgating rules to control faculty behavior. (Heydinger & Simsek, 1992, pp. 21-25)

Heydinger and Simsek admit that this agenda may appear like the road to professional death, but present this agenda as a departure point for discussion.

In the same context, the joint faculty senate and union leadership of the State University of New York and the California State University proposed seven principles to meet the challenges of the call for increase productivity.

- Public higher education must become more productive by continuing to improve quality, recognizing that public needs and expectations will likely exceed that which can be provided with the funding available.
- Increasing productivity must focus more on strengthening outcomes such as student learning rather than cheapening inputs such as expenditures on faculty.

- Governing boards, academic administration, and faculty governance bodies need to be clear about the mix of expectations on the faculty for teaching, scholarship and service, and must provide support and rewards accordingly, including compensation and promotions.
- Faculty accomplishments in teaching, scholarship and service need to be evaluated at regular intervals.
- Tenure is an assurance of academic quality and institutional integrity. It is not a barrier to academic productivity or to responsible management.
- Any examination of faculty productivity must address those few individuals whose performance falls clearly short of the reasonable expectations of colleagues, students, and the public.
- Faculty can be most productive only when they participate in establishing the activities and values supported by their institution.

In conclusion, we recognize the dangers in the misapplication of the corporate model of productivity to the academic enterprise of teaching, learning, scholarship and service. But we accept the likelihood of having to do that we have been charged to do with fewer public resources than we once knew. As a "voice" of faculty who must face this challenge, we offer these seven principles and reiterate our commitment to the noble mission of public higher education. (Johnstone et al., 1997, pp. 3-7)

These agendas or principles of change demonstrate that the conservative faculty understand the need for change and the forces driving that change.

While it is possible that productivity analysis and the use of workload data to adjust higher education may occur, it is vital not to allow the production model to lead to:

(1) overemphasis on direct instruction to the exclusion of other functions of the university; (2) adoption of faculty time as a proxy for all the elements of instructional inputs; (3) acceptance of such fragmentary measures as credit-hours to indicate outputs that are much more complex; (4) inattention to the process of learning; (5) public usage of measures that reflect almost none of the improvement in quality that have occurred in educational practice; and (6) disregard for professional independence. (Toombs, 1973, p. 19)

To this list should be added a seventh warning. Students should not be treated like cars on a production line and higher education institutions are definitely not

factories. Any productivity analysis that may be perfectly valid in business needs to be scrutinized carefully and tested extensively before it is cavalierly used as a measure of higher education productivity.

#### Summary

Public and legislative calls for accountability have made workload and productivity studies a fact of life for higher education. As a result, higher education administrators must understand and be able to define workload and productivity. The administrators must also understand how the data is collected and used, as well as the limitations of the studies especially when they are used for funding criteria.

What is abundantly clear from the literature is that there is no real consistency across the United States concerning the definition of workload. This makes comparisons virtually impossible. Among the various parameters used to define workload are contact hours, total hours per week spent on all activities, time devoted to instruction, and hours spent in the classroom. There is not even consistency in how workload data is collected since some use self reported data only, some use only data is generated by institutional reports, and some use a combination of both. While the State of Higher Education Executive Officers agreed that there should be common methodologies for determining faculty workload, there was no consensus on which method to use.

Faculty productivity is even more of a Pandora's Box. Traditionally, a productive faculty member is one who actively participates in research and generates articles, presentations, chapters, books, and abstracts. This myopic view of productivity is being questioned by the public and legislatures who want a greater emphasis on teaching. There is no consistent method for measuring faculty teaching or service productivity. In fact the term "productivity" is frequently

used as merely a synonym for workload rather than an expression of the ratio of between complex inputs and outputs of higher education.

Despite all of these inconsistencies, workload and productivity are increasingly being used by State governments as criteria for funding. Accountability or criteria funding of colleges and universities hinges on measurements that are at best inconsistent. Criteria funding is so pervasive that most States use it to fund a portion of the higher education budget and there is no evidence in the literature that this trend is going to decrease in the future.

Therefore, It is incumbent upon higher education to do what it does best. It must research this subject carefully and dispassionately. Then, higher education faculty and administrators must teach the public and themselves what the numbers mean, how they are derived, how they affect the human process of higher education, and why some numbers may be valid while others are not. Until this task is completed, higher education will remain besieged and under attack.

## Chapter III

### METHODOLOGY

#### Introduction

The reason quantitative instead of qualitative studies on faculty productivity are so prominent is because the data is usually collected in numerical form and since many administrators use the studies to view trends, analyze data, and test hypotheses, it is logical that they will want quantitative data. Workload studies translate well into numerical form but the complexity of productivity makes it difficult to translate into pure numerical form. Also, the collected information is usually reported to state and federal government agencies that are only interested in the cold reality of numbers. "Quantitative researchers tend to translate their observations into numbers." (Filstead, 1979, p. 37) But it is necessary to understand that faculty productivity studies are not simply numbers. More and more researchers are understanding that productivity is a process. "Qualitative inquiry is highly appropriate in studying process because depicting process requires detailed description; experience of process typically varies for different people; process is fluid and dynamic; and participants' perceptions are a key consideration." (Patton, 1990, p. 95) The qualitative paradigm is a dynamic interchange between theory, concepts, and data with constant feedback and modifications of theory and concepts based on the data collected. When studying administrators' perceptions of what, how, when, and why faculty do something, it is important not to lose sight of the fact that workload studies are dynamic numbers that vary from process to process.



As Patton states "A process evaluation requires sensitivity to both qualitative and quantitative changes in programs throughout their development." (p. 95) In the past, the quantitative method has been well represented. This study explores the use of the qualitative method to "look not only at formal activities and anticipated outcomes but...investigate informal patterns and unanticipated interactions." (p. 95)

### Sample

In 1998 the State of New Jersey had sixty-one institutions of higher education. Nineteen were community or county colleges. These were eliminated from the sample because their mission was for the most part skewed toward teaching instead of the traditional tripartite mission of four year institutions: teaching, research and service. Of the institutions of higher education that award baccalaureate degrees, twenty-two were private independent colleges and universities. "An institution is called private or independent when it receives little or none of its money from the state." (Goldberg, 1992, p. 5) Since the focus of this research was institutions receiving money from the state, private institutions were eliminated. To allow for ease of travel and the ability to perform the interviews in a timely fashion, only single campus public institutions awarding a baccalaureate degree in the northern eleven counties were included in the sample. Those counties were Sussex, Passaic, Bergen, Warren, Morris, Essex, Hudson, Union, Hunterdon, Somerset and Middlesex. Any specialized school that did not offer liberal arts as well as sciences was also eliminated as non-

representational. There were a total of five single campus, public, nonspecialized four year institutions of higher education in Northern New Jersey.

The institutions broke down into three general categories; rural, suburban and urban campuses. All five institutions offered liberal arts as well as science programs with a diversity among the institutions as to other programs offered. The campuses ranged in size from over three hundred acres to less than 20 acres. Student populations ranged from over 13,000 to less than 5,000. While the schools were roughly divided evenly between male and female students, there was a great diversity of minority students represented in the sample. The institutions were designated A through E in this study.

### Subjects

The names of the administrators were gathered from the 1998 HEP Higher Education Directory. All administrators in the chosen institutions from the dean level up were chosen to participate in the study. The subjects included assistant or associate deans as well as vice presidents, provosts, and the president. The result was a total of sixty administrators in the original subject pool.

A letter was sent to the Presidents of each institution explaining the project and requesting permission to interview the subjects. (Appendix D) After several weeks of follow-up, permission was granted by all institutions. Each subject received a letter explaining the research being performed and asking for participation. (Appendix C) During this process, of the sixty administration positions listed in the directory, eleven were either vacant or consolidated with

another position in the institution, and four administrators had been hired within the last two months and did not feel able to contribute to the study. The resultant 45 participants make up the final sample pool. Of these forty-five participants, twenty-three administrators agreed to participate after several weeks of correspondence and telephone contacts for a return rate of fifty-one percent.

#### Instrument

The instrument contained questions in the standardized open-ended interview format. (Appendix A) The questions asked participants to define faculty productivity, to give their perceptions of the fiscal constraints facing higher education today and in the future, to give their perceptions of how any fiscal changes may impact faculty productivity, and what strategies may be employed to change faculty productivity. The open-ended interview format was used to minimize interviewer bias. The open-ended format was used also because it was only possible to interview the participants once and for a limited period of time.

#### Pilot and Instrument Validation

The preliminary instrument was mailed to twenty-two academic and business administrators in an institution that was not be part of the sample population as a pilot test for clarity. These administrators acted as a panel of experts to help with the wording of the questions to assure clear and precise answers. Fifteen administrators responded. Corrections and suggestions from the pilot group were incorporated into the final instrument. (Appendix A) Demographic questions (Appendix B) were also submitted to the pilot group for comments. Based upon the pilot group's suggestions, the demographic

questions were developed to gather only information that is pertinent to the study.

#### Research Procedure

To help relax the participant and facilitate candid responses, as much as possible, the interviews were conducted in the participant's office or an area that the participant chooses. The participants were sent an introductory letter prospectively and given a copy of the same letter at the time of the interview (Appendix C) that explained the purpose of the interview, assured the confidentiality of the responses, and allowed for withdrawal at any time during the interview. With the permission of the participant, the interviews were taped and a demographic questionnaire was completed. At no time during the interview or during the transcription of the tapes was the participant identified by other than a number code that will assure anonymity. The basic interview questions were asked in the same order, but differently worded probes were sometimes necessary to elicit complete information. At the end, each participant was asked if he or she has any closing statements to make.

Transcription of the tapes was done in a fashion that assured the anonymity of the participant and the tapes were kept in a secure locked cabinet. Once transcribed, all the tapes were erased.

## Chapter IV

### ANALYSIS OF INTERVIEWS

#### Introduction

In this section, a detailed analysis of the demographic information and the interviews has been conducted and discussion of the survey answers has been provided. In the first section, the demographic information is used to characterize the respondents and to help with the analysis of the transcripts. In the second section the transcripts of the interviews were analyzed using cross-case or cross-interview analysis for each question asked in the interview. This method of analysis helps group answers from different administrators to the same questions as well as helps analyze their perspectives on the central issues suggested by the research questions. Formal analysis of the data includes content analysis. Patton (1990) states "Content analysis is the process of identifying, coding, and categorizing the primary patterns in the data." (p. 384) Since a distinct pattern was established with the first question, this pattern was used to develop a coding system to help group the answers into logical categories. The pattern made it possible to use inductive analysis. "Inductive analysis means that the patterns, themes, and categories of analysis come from the data; they emerge out of the data rather than being imposed on them prior to data collection and analysis." (p. 390) Finally excerpts from the interviews were used to help illustrate the interpretations derived from the data. Each research question will be stated and the results of the data synthesis will be presented.

### Demographic Information

The demographic questionnaire was completed at the end of each interview. The questionnaire (Appendix B) contained general information completed by the interviewer. This information included the unique identification code, the date of the interview, the time of the interview and the gender of the respondent. After the interview was completed the respondent was asked to answer questions concerning time spent inside and outside higher education, the number and type of degrees earned, whether the respondent held an academic appointment, and the last five institutions of higher education employed.

The first interview was conducted on March 13, 1998 and the last interview was conducted on August 26, 1998. The average time of the interviews was 38 minutes. Fifteen male and eight female respondents were interviewed. The average number of years working in higher education for the respondents was twenty-five years. Several of the respondents worked outside of higher education for an average of three years. Respondents held their current post for an average of eight and one-half years. Of the respondents interviewed, fourteen were presidents or vice presidents, six were deans, and three held post other than president, vice president or dean. Eighteen of the respondents held doctorate degrees. Twelve of the people interviewed held an academic rank in their institution with nine of them being full professors and three holding the rank of associate professor. The people interviewed did not work in many other

institutions of higher education. On the average, the respondents only worked in between one or two other institutions of higher education.

#### Analysis of Interviews

Question 1. Based on your education and experience for the position you currently hold, what do you consider your training to have been?

This question helped to establish the pattern analysis for the rest of the survey questions. Fourteen of the people interviewed responded that their background was academic. Six responded that their background was financial or business. Three said that their training could not be classified as either academic or business or financial. The above demographic information was reclassified using the pattern established by this question.

The results in Table 7 shows the gender distribution of the respondents.

Table 7

#### Demographic Information by Pattern

<u>Description</u>	<u>Academic</u>	<u>Business</u>	<u>Other</u>	<u>Totals</u>
Male Respondents	10	3	2	15
Female Respondents	4	3	1	8
<b>Totals</b>	<b>14</b>	<b>6</b>	<b>3</b>	<b>23</b>

While almost twice as many of the total number of responding administrators were male than female, the number of business administrators was equally divided among male and female respondents.

The distribution of experience is shown in Table 8.

Table 8

Experience by Pattern

<u>Description</u>	<u>Academic</u>	<u>Business</u>	<u>Other</u>	<u>Totals</u>
Average Number of Year Working in Higher Education	25.7	21.7	28.7	25
Average Number of Years Working Outside Higher Education	2.2	6.8	1	3.3
Average Number of Years Working in Current Post	8.5	9.4	7	8.5

The table shows that the level of experience for all the respondents averages over twenty years in higher education. The respondents who classify themselves as having business and financial training have over three times the amount of time outside higher education than those who responded that their training was academic. Finally, although there seemed to be some insecurity in the positions as was demonstrated from the initial sample information, the respondents who agreed to be interviewed had an average of over eight years at their current post indicating some relative stability.

The distribution of posts is shown in Table 9.



Table 9

Administrative Post by Pattern

<u>Description</u>	<u>Academic</u>	<u>Business</u>	<u>Other</u>	<u>Totals</u>
Presidents or Vice Presidents	6	5	3	14
Deans	6	0	0	6
Other Administrative Positions	2	1	0	3

The majority of the people who agreed to be interviewed were at the higher levels of administration. These were also the most stable positions. Several of the dean level positions were unfilled at the time of the interviews or were consolidated. Five of the people interviewed were holding multiple administrative positions. Some of the institutions of higher education used terms such as "director" instead of the usual dean position. Provosts were also classified in the "other" level.

The distribution of degrees and those who hold an academic rank are shown in Table 10.

Table 10

Degrees and Academic Rank by Pattern

<u>Description</u>	<u>Academic</u>	<u>Business</u>	<u>Other</u>	<u>Totals</u>
Average Number of Earned Degrees Held by Respondents	2.8	3	2.3	2.8
Number of Respondents Holding a Doctoral Degree	11	5	2	18
Number of Respondents with an Academic Appointment	9	1	2	12
Average Number of Years in Present Academic Rank	6.4	2	16.5	7.8

Going into the interviews, the researcher had expected that most of the business trained respondents would view a Masters of Business Administration(MBA) as a terminal degree. However only three of the six held MBA's. Five of the six held some kind of doctoral degree. None of these terminal degrees were directly related to business.

The academic and other groups clearly had the majority of respondents that also hold an academic rank. In the academic group, six of the fourteen have achieved the rank of full professor while three of the fourteen hold the rank of associate professor. Two of the three respondents in the other group hold the rank of full professor. Only one of the six business group holds any academic rank, and that rank is a full professor.

On the demographic survey, the respondents were asked to list the last five institutions of higher education where they were employed. This question was the question that presented some problems to the respondents. However,

the aggregate information shows that overall, the respondents were very stable. They worked at only between one and two other institutions of higher education. The business group had worked at the most other institutions of higher education while the other group had to a person only worked at their current place of employment.

Many of the fourteen people who responded that their background was academic; also admitted that they had many other experiences that could be classified as either business or financial. They acknowledged the need for some business, financial, and personnel training for higher education administration. One respondent said, "My undergraduate degree is in English, my graduate degree is in counseling, and add to that about twenty-seven years of experience in higher education in varying areas. I've learned to deal with a number of business issues that were there..." Another respondent said, "Academic all the way. I mean what I had in terms of financial came in courses and in terms of the experience of being in with programs and projects, but it (my training) was primary an academic." A third respondent said, " More of an academic background. My undergraduate program was in education. My graduate was in political science, and I've done post graduate work in the areas of administration and higher education administration, and a number of institutes that dealt with management, personnel evaluation, motivation and so on." This last respondents sums up what most of the academically prepared respondents tried to communicate with their answers. This respondent said "It (my training) was pretty much an academic background, but I'm also very good at figures." Most

academically trained administrators must appreciate and like working with budgets, personnel matters and the business aspect of running institutions of higher education or they do not last long in the administrative ranks of the institutions.

Only one of the five business respondents also acknowledged the academic necessity, indicating the need for the academic input into resource planning so that "academic priorities receive the proper attention". Most of the business respondents were very straightforward in their answer and unequivocally answered that their training was purely financial and business. The business group also stressed the practical end of their training. Most indicated that they had held a variety of business oriented positions prior to the position in which they were currently employed.

The group that is listed as other basically indicated that they learned on the job through experience. One respondent said, "...it's (my training has) been on the job, working through the ranks, the administrative ranks." Another also answered the question, "On the job training." The last said, "It (my training) was really a very eclectic combination of experiences..." All three held at least four other positions at the institution where they were employed. One of the respondents acknowledged coming from the tenured faculty ranks, the person did not want to be classified either as an academic or business person.

Question 2. What do you think about when I say faculty productivity?

Two respondents started the answer by joking that this was an oxymoron. Three other respondents started their answer by commenting that as one of them

said, "I think that it's something that probably has declined over the years..." Or the other feeling is that there are faculty that as one respondent said "the worst give the whole academic profession a bad name. They're phantoms; they show up for classes, they squeeze their office hours into fifteen minutes before class and fifteen minutes after class time." Another respondent lamented that some of the faculty seem to be "unidimensional". This respondent went on to say, "They're (the faculty are) trained just to be researchers; they're trained just to be teachers." However, most of the respondents started their answers with feelings that were well put by one respondent. "I think faculty productivity is (a) very difficult area to measure as well as to manage. Unfortunately we have the external community that looks upon the hours in class. But for most of the faculty that I'm acquainted with, of course there are some exceptions, are people who work very hard." Five of the respondents had examples of faculty they considered exceptionally productive.

The classic answer expected for this question was that of teaching, research or scholarship, and service. The respondents were not universal, however, in actually answering with all the various classifications. Two did not even mention the above classifications. The distribution of how the respondents answered this question by pattern is in Table 11.

Table 11

Classification of Faculty Productivity Answers by Pattern

Pattern	Teaching	Research and/or Scholarship	Service	Accountability
Academic	13	12	9	1
Business	6	5	4	0
Other	3	2	0	1
Totals	22	19	13	2

Teaching

Teaching definitely was the highest priority to the majority of the respondents who answered this question. Twenty-two out of the twenty-three or ninety-six percent of the respondents used teaching in one form or another in their answer. Since all five institutions listed teaching as the highest priority in their mission, this answer shows that administration is in agreement that teaching is the highest priority to their institution.

Teaching was described by the administrators with the academic background in many different ways. One respondent described it as "teaching, mentoring, thesis supervision and so on". Another respondent said,

When I think of faculty production I think of first teaching. I think of a more classical way than of number of classes that are taught...I also think of how successful a particular individual is in respect to that teaching, whether it's four courses a semester or two classes a semester. So you know its almost like the trinity of faculty existence...teaching, and teaching aspects...you look at the advising, you look at the counseling, you look at the curriculum development and the revision that goes on.

Another respondent stressed the fact that teaching does not end at the classroom door. "...it (teaching) goes beyond the classroom...I believe in involvement they (faculty) have with students...it's their academic presence in the classroom, and their relation with the students and their willingness to assist students." Another respondent stated that teaching is not "just the classroom time..." While another respondent indicated that "productivity also is a matter of admitting students, retaining them, and graduating them productively. Retention is a part of productivity."

The business oriented administration for the most part tried to define teaching in terms of workload. One respondent stated that teaching is a function of "student/faculty ratio" while another stated that "you look at measurable indices such as credit hour taught, students instructed... per semester." A third respondent stated, "I think about the amount of time they're spending in the classroom, doing actual teaching..." This was echoed by another respondent who stated that faculty productivity "is certainly time on task..." Of the six business oriented administrators, four used workload type indices to describe faculty teaching productivity. However, one business oriented administrator when probed, also defined teaching in more qualitative terms. The respondent stated, "Given our population, it's (faculty productivity is) their presence in the classroom, and their relation with students, and their willingness to assist students."

The administrators who fell in the "other" category had a more philosophical definition of teaching. One respondent talked about teaching as

the faculty's "relationship, their interaction with their students... their ability to motivate and instruct." Another respondent stated that teaching is "sort of innovativeness in teaching...a willingness to look for different ways of teaching, to try different things in the classroom."

#### Scholarship – Research

Scholarship and research came in a close second when administrators spoke about faculty productivity. Nineteen of the twenty-three respondents or eighty-three percent of the respondents indicated that scholarship and/or research is an important part of faculty productivity. Since almost three quarters of the administrators hold a doctoral degree, the emphasis on scholarship and research is understandable. As with teaching, scholarship and research were defined in many different ways. There was, however, no real discernible pattern between the three categories of administrators.

Only five of the nineteen indicated that scholarly productivity is the number of articles in a peer reviewed journal or other quantifiable measure. But most of the respondents indicated that the quality of the research and scholarship is important. One academic respondent stated, "one thing is to have an individual who has a long list of publications, presentations and honors, and another is an individual who has a very small list but the quality is such that it actually has more impact in terms of that discipline or area within the discipline." Another academic respondent stated that "it's important to have a broader definition than simply how many articles people published in refereed journals, you know, how



many times have they spoken at professional meetings, etc., I think having this requirement that people be active professionally is I think what's important..."

Most of the respondents agreed that scholarship and research should be defined in very broad terms. One academic respondent stated, "I think typically people make the distinction that research is primarily devoted to primary investigation, the uncovering of new knowledge. Scholarship is broader and can include pedagogy and things that broaden or enhance or enlighten existing knowledge, but don't result in the creation of new knowledge." Ten of the nineteen saw research and scholarship as a natural outgrowth of teaching. As one academic respondent stated:

On this campus it's (scholarship is) called continuing growth. Continuing growth is involved in those activities that lead to your development in your profession, and there are a variety of ways you can do that – through workshops, through seminars, through special programs – I mean it could be through additional degrees as well. But there are some who are very active that way – very productive – and it translates back because it is reflected in their teaching, in the information they are able to acquire and then use within the classroom...

A respondent in the "other" category stated, "...we define scholarship more broadly, in the sense that it involves not only the traditional publication in peer review journals and books...I guess a very broad definition is 'being alive' in an intellectual sense, in a scholarly sense."

Four of the nineteen respondents linked scholarly productivity with tenure and promotion. This did not exclude the broad sense of scholarship, but was mentioned as part of the discussion of research and scholarship. One academic respondent stated, "And for research, that's much more classical in

nature...you're looking, and I look, as I go through assessment for tenure and promotion, I'm looking for an array of activities...research agenda that leads to a series of completed activities."

### Service

Only thirteen out of the twenty-three respondents or fifty-seven percent mentioned service as a component of faculty productivity. Just like the preceding two, service was described for the most part in very broad terms. One academic respondent stated for service, "How much they (the faculty) give to the rest of the world beside the student they teach." Another academic respondent tied service to the fact that faculty "are available to contribute to the life of the college." A third academic respondent stated that faculty service is "to both communities, the campus community and the surrounding community." Another academic respondent linked service to community by stating the service is "whether or not they're actively participating within the academic community or within the larger community."

Some of the respondents tried to be specific about service by linking it to some aspect of faculty life. An academic respondent stated, "And then there's the discipline-related service, and I look at that as a very important kind of productivity that some faculty members don't think too much about." While a business respondent stated that service "might mean committees with respect to faculty governance, or it also might mean working in the area of student affairs...with student organizations."

For the most part, when mentioned at all, service was the last aspect of faculty productivity discussed by the respondents. One of the academic respondents linked service and fund raising for research in the following way, "...probably third for this institution way down on the list, two things tend to diverge...community service on one hand and the ability to raise funds to support research on the other hand..."

#### Accountability

It was interesting that two of the respondents directly linked this question with accountability. One academic respondent started answering the question by stating, "I think that faculty productivity has been an outgrowth, or the interest in faculty productivity has been an outgrowth of an interest in greater accountability on the part of higher education." This respondent went on to say that this is the focus by people "who largely don't understand the enterprise..." The respondent in the "other" category started talking about interaction with students but quickly changed to "issues of accountability..." This was further described as "accountability for public funds and how they're spent in a publicly supported institution."

#### Question 3. Describe the characteristics or traits of your view of an ideally productive faculty.

This is a follow-up question to question number two. By following the last question with this question, the respondents are encouraged to expand upon their answer concerning productivity. Also it is used as a check for the grouping

system being used to classify the answers concerning productivity. As is shown in Table 12, the distribution of answers is closely related to question two.

Table 12

Classification of Characteristics of a Productive Faculty by Pattern

Pattern	Teaching	Research and/or Scholarship	Service	Accountability
Academic	14	12	5	0
Business	6	4	4	0
Other	3	2	1	1
Totals	23	18	10	1

The distribution of answers to question three follows closely how the answers to question two were distributed. What is interesting is that while in question two none of the administrators in the other group mentioned service, in question three, one of the three administrators in the other group included it in his answer. Another interesting aspect of the answers to this question is that twelve of the twenty-three or fifty-two percent of the respondents emphasized students in answering this question. Another aspect of the answer to this question is that the various classifications were combined to show their interrelationship. But for the most part, the responses were like the one respondent who stated, "Well I guess an ideal productive faculty member would be one who has found a comfortable and responsible balance among those three faculty obligations with that faculty member's strength." Another academic respondent stated that the administration

and the school was responsible for developing the ideally productive faculty member.

I don't have an ideal. What I do have is a belief that what you try to do is develop the best talents of the particular faculty member. That will then make them as productive, or the most productive they can be, at the qualitative."

### Teaching

As with question two, a clear majority of the administrators classified teaching as a characteristic of a productive faculty. The one administrator that had not mentioned teaching in the answer to question two clearly stressed teaching in the answer to this question. As with the answers to question two, the answers concerning teaching were very broad based and usually student oriented.

The academically prepared administrators seem to echo closely their answers from question two. Over half focused on students when giving their answers. One respondent answered, "The ideal teacher is someone who is caring and concerned about students that they're working with." Another respondent answered that the productive faculty's focus "is on student learning and development in the broader sense, that the student should be familiar with the profession for which he's training." A third respondent stated, "We have faculty that never lose sight of the importance of teaching as their responsibility, so a faculty member must care about teaching, spend time improving teaching, and really work towards teaching." Another respondents stated, "I think a productive faculty member is someone who is a very organized person whose classes reflect that. Who takes the time to develop assignments that challenge

students' thinking, who gives them an opportunity to show their writing skills and communication skills."

The business prepared administrators tried to describe the productivity characteristics of the faculty in business terms. One respondent talked in terms of average teaching load and student/faculty ratio. Another respondent said that the characteristic of a productive faculty is "teaching a reasonable teaching load." A third respondent indicated hours on task as a major criteria. However, half of the business administrators also focused on students with their answers. One stated that a characteristic of a productive faculty is "a real presence on the campus for the students in a modeling kind of term." Another respondent stated that a productive faculty member "is actively engaged with student outside of the classroom and is also a very positive member of the community." A final respondent stated that the productive faculty member "challenges the student(s) and is willing to assist the student(s) to achieve their potential."

All of the administrators in the "other" category likewise indicated that student interaction is an important characteristic of the productive faculty member. One characterized the ideal faculty member as one who motivates students. Another stated, "I think the ideal is in large measure influenced by the intensity of the commitment that the faculty person brings to the task of instructing and learning, and continuing to grow and to disseminate information with an open mind." The last respondent indicated that the productive faculty member is "very much engaged in the life of the University, the life of the

classroom, certainly, and is willing to do different things, try different approaches.”

### Scholarship - Research

The responses concerning research closely followed the answers to question two. There was a clear majority that thought research was necessary; however, this majority also had restrictions and caveats to add to the research agenda. The administrators wanted the research to in some way enhance the classroom experience and engage the students. Not one of the administrators focused in on the research of discovery as Boyer stated it in Scholarship Revisited. The most prevalent type of research emphasized by the administrators was applied research.

One academic administrator stated that the ideal productive faculty “has an ongoing research agenda that results in significant output.” Another academic respondent stated, “An ideally productive faculty member would be someone who is able to translate their research into pragmatic practical terms for students and who would be able to involve their students in their research.” A third academic respondents stated, “I’d want a faculty member who engages in the kind of research or scholarship that will in fact enhance their teaching. We are increasingly trying to emphasize applied research.” Another academic administrator stated “I don’t require a tremendous amount of scholarly production if that’s balanced off with other kinds of very productive applied scholarship.”

One business administrator stated, "I'd like to see evidence of scholarship, continual scholarship and interest in their field." Another business administrator tried to combine teaching and research into one by stating:

My old boss, who was a long time academic administrator, basically had the tripartite model in his head...teaching, research, and service. And his notion was, the best faculty were also the ones that were good teachers...that's the ideal. And often I think we've got a tradeoff presented to us, which is...I teach very well, therefore I can't really do what you expect of me as a researcher. I would think, it's a requirement for both...Some of the best teachers I've seen are also successful researchers, both funded research as well as university funded scholarship, so...I think that's the model I would ascribe to.

The administrators in the "other " category also tried to link scholarship and research with teaching and the students. One respondent stated, "I think a faculty member would serve as a motivator to move students on to pursue; experiment; research; discuss theories, concepts and historical perspectives among themselves." Another respondent stated, "Ideally, a productive faculty member would be one who maintains a very viable presence in his or her discipline and by that I mean either through publication, active involvement in that association annual conferences and meetings, participating or offering workshops, so that person has a very good sense of what's going on...is very much aware of what's happening as far as developments in his or her field and is actively engaged in that field."

### Service

Service as with the answers to question two was the lowest priority with only about forty percent of the administrators mentioning it in their responses. One academic administrator mentioned committees in the response to the



question. Another academic administrator stated, "Some people are magnificent leading task groups, focusing in on particular concerns whether it be disciplinary concerns or institutional concerns." A third academic administrator indicated that the ideally productive faculty member "participates in the school, the department, school and university governance." Another academic administrator said basically the same of the ideally productive faculty is "that they're good citizens of the university, and that they get involved in things they have to do...deal with the governance issues." This administrator goes on to include community service as it deals with students and the "kinds of agencies that they're preparing student to work in".

The business administrators were not as enthusiastic about service, but two of them indicated that service was a part of the ideally productive faculty. One stated that faculty should be "serving the community." Another business administrator acknowledged that until the faculty have achieved tenure, most of the productivity goes to teaching and research. However, "after they've gotten tenure, they're suddenly able to serve more on committees or to work with student groups." The only administrator in the "other" category that mentions service basically reflects the same attitude that service is "being engaged in the university in some way, whether it's in the governance, or some other form of participation within the department."

Question 4: What kind of productivity data is routinely compiled on an institution-wide basis?

The answers to this question were varied and in many cases difficult for the respondent. Since they were recently hired, three of the twenty-three did not have any idea what productivity data was collected in their institution. Seven of the twenty-three answered that nothing was being collected. As one academic respondent stated, "There actually isn't any done here on an institutional basis." Three of the respondents who stated nothing was being collected cited unions as the reason. As one of the academic administrators stated, "It's a process that's been negotiated...between the union and the college and basically it's called career development..." Five of the respondents distinguished between pre-tenure and post-tenure productivity data collected. The common theme was stated by one of the respondents in the "other" category, "There is the annual evaluations which occur prior to and as part of making a tenure decision. After that there are evaluations that occur as part of participating in the promotions process." However, recently the state has instituted a form of post-tenure review every five years, and the feeling is that this is more for advisement. As one academic administrator stated, "But post-tenure review is not to be used as a weapon against the faculty member; it is simply to be used to constructively engage that faculty member in the discussion about his or her way of doing whatever they're doing in their discipline."

Only ten of the twenty-three respondents were able to cite specific quantitative data that is collected. This data included items in all three areas of productivity. Under teaching examples of the quantitative data that is collected are grade distributions, number of credits taught, number of students per course,

number of semester or credit hours taught, number of courses taught, and number of contact hours reported. In regards to research and scholarship, the quantitative data being collected is research activities, publications and number of grants. While very few respondents cited service in the collection of productivity data, number of committees and student activities were indicated as the quantitative data collected. Table 13 shows the breakdown of productivity data collected by pattern.

Table 13

Faculty Productivity Data Collected by Pattern

Pattern	Teaching	Research and/or Scholarship	Service	Nothing	Did Not Know
Academic	5	8	3	4	1
Business	3	1	0	2	2
Other	2	1	0	1	0
Totals	10	10	3	7	3

Three of the twenty-three described pure qualitative data that is collected as productivity data for the institution. One of the academic respondents described it like a departmental or academic major self-study. At this time the faculty are able to highlight what they are doing. As part of the qualitative review, three of the respondents stated that either peer or student reviews were used to indicate productivity data. As an academic administrator stated, "In terms of their teaching effectiveness, each student in each course has an opportunity to

evaluate their teacher in written form, which is then part of the personnel process." Another academic respondent stated, "I don't look at it so much in terms of productivity as I do in terms of getting a handle on what faculty are engaged in and being certain that it's relevant to the mission and the goals of the college."

One of the administrators who stated that nothing was being collected voiced concern over the lack of data available. This business administrator stated that without concrete data, it is difficult to direct resources where they are needed. This administrator stated, "...it has been frustrating for me...to try to get a handle on loads, adjuncts, who's teaching what when, how much release time for faculty, that sort of thing." This administrator said that without concrete data, it is impossible to match what the faculty are teaching with what the students need. The respondent further stated, "From my perspective, if we want to have a good solid foundation, if we want to have general education requirements, and these are developed and set by the faculty, they've determined that this is important for the student's education, then I believe that the full time faculty should be involved in that." Without reliable data, this administrator stated adjuncts are hired to teach required courses while full time faculty provide "esoteric electives". With data like number of students taught per course and student needs according to major, the institution could allow the faculty to teach what they want but also utilize them in courses that students need to graduate.

Question 5: Describe how and by whom these data are routinely used?

This was a follow-up question to the question on what kind of productivity data is routinely compiled on an institution-wide basis. Therefore, the seven that said nothing and the three that did not know had no answer for this question. Another interesting aspect of the answers to this question is that only seven administrators had a clear picture of the people who get the data and how it is used by them once received. Most of the administrators either did not know or guessed at the answer. One academic administrator stated, "The load characteristics I would assume are used within the departments to see that there is equity with assignments." Another academic respondents said, "They (productivity data) are probably used when faculty apply for significant grants." A third academic administrator stated "I think it's the department chairpersons and the deans that use it (productivity data)." A business administrator stated, "I think what data are collected probably are collected in our office of institutional research."

The seven administrators who provided definite answers to this question delineated equally that the information is used by the department chairs, deans and institutionally by the vice presidents and the president. Only one designated that the information is used by outside people, specifically the commissioner of higher education. Other areas in the institution that were listed as receiving the data were the budget office, the office of academic affairs, and the institutional research office.

The information provided by the seven that were sure of their answer basically showed that the data are not consistently used for any specific reason.

The most popular answer was that the information is used for resource assessment. One academic administrator stated that productivity data "viewed at an institutional level to see that the resources devoted to the particular discipline are in some ways concomitant with demand for the program." Another academic respondent stated, "The data was used to make some rough judgments about quality of academic programs and procedures, resources, and to make some decisions as to which programs to augment support to and which academic programs to terminate." A third academic administrator related that productivity data is used to determine what the faculty is engaged in and "if faculty engage in research that's unrelated to their teaching and unrelated to their particular position, it's not something I would be paying for." A business administrator stated:

There is not an arithmetic relationship. In other words we don't use it (productivity data) to make decisions. It's more or less a guide. In other words, if a department has had a surge in enrollment, we tend to react with some temporary resources to facilitate that. On the other hand, if someone has declining enrollments we don't all of a sudden pull resources back.

Another business respondent stated that the data is used "by academic affairs for programming and for determining also what are the areas where new faculty are needed...in budget and fiscal affairs we use the data to prepare salary forecasts and to put the budget together."

There were other responses to the use of productivity data which include using it for informational purposes or for promotion purposes. Two administrators indicated that the data is used for informational purposes. One academic administrator stated, "I think institutional research simply gathers the

information and puts it back out, and hopefully when it disseminates it to the institution, people can make use of it." An academic respondent linked information and promotion by stating, "Well the teaching evaluation information is used by deans of the schools and the others in terms of promotion and tenure decisions. It's also shared with the faculty so they can improve their own teaching." Two of the three respondents in the "other" category had similar answers concerning the use of productivity data. Their views basically were that productivity data were "used by peers in terms of making judgments with respect to recommending continuation of employment contracts for nontenured faculty. And certainly in terms of promotion, they are used by peers in terms of recommending faculty who will be promoted within the context of the university structure."

Question 6: What productivity data do you believe should be collected?

This question generated some interesting answers. Six of the respondents suggested outcome measurements that should be collected. Four respondents suggested that besides quantitative measurements, qualitative data should be collected. Three suggested that the data should be collected over a longer period of time than one academic year and some of these respondents wanted the aggregate data to be shared not only within the school, but also with other institutions. Two listed purely quantitative workload data that they wanted collected. But eight stated that either they collected enough data or that they were not sure what else to collect. The feeling of these eight, however, is reflected in the statement that one business respondent made:

I don't know if there really is that much more that should be collected, because you can't always measure the effect that a faculty member has on the students. Because given our institution, our students come here and many are not prepared properly; so, there's a lot of remedial work that is done. So basically it's having that faculty member assist the student in achieving the best they can.

The distribution of the six respondents who suggested outcomes as productivity data that they would like to see collected were three academic respondents, one business respondent and two of the "other" category. The outcomes to be measured are listed in Table 14.

Table 14

Productivity Outcomes Suggested

Student Outcomes

- Increased Student Learning
- Increased Student Satisfaction
- Responsibility for Student Success
- Student Grades
- Student Retention
- Better Student Communication Skills
- Measurement of Where Student Started to Where Student Ended

Research Outcomes

- Improved Life for Society
- Research Other than Discovery
- Scholarship Over Time

Service Outcomes

- Solving Problems for the Betterment of the Community

Most of the outcomes listed above were qualitative in nature by admission of the respondents. Some of the respondents tried to give some quantitative measurement to these categories. One academic respondent stated, "I think in terms of the notion of in the future or in terms of fiscal accountability, sooner or later someone's going to think up how many students have you helped graduate this past four years."



Most of the respondents answers concerning outcomes were qualitative in nature. This business respondent stated it the best:

Once you determine what does it takes to produce the outcomes, then I think you can begin to measure those inputs. It's not a simple matter like in a manufacturing exercise where you have an output, and then you had raw materials, the labor...those are all together. It's not that easy. And I think people try to approach it from far too simplistic a point of view. I don't really think that faculty productivity is necessarily related to hours spent on the task. I think it's not how many students you teach; it's how effectively you teach the students you teach...one of the issues with faculty is really to learn how better to translate what they do to the outcomes, if broken down to a very simplistic business model, it is going to be very dangerous to faculty members.

However, since most respondents did not know specifically what outcomes needed to be measured, most would probably agree with this other business respondent who said, "So I think that ideally we would have to do a much better job of assessing outcomes, identifying outcomes and then trying to determine what produces those outcomes."

Since the primary mission of all the institutions is teaching, the majority of the outcomes were student related. One academic respondent stated, "I'd want someone to be responsible for that student being successful. And so somehow I would relate student retention, student grades, and how students feel about the education they are receiving in terms of productivity." While another academic administrator stated, "I think that employers and parents and students themselves want to know that they're going to have better communications skills when they leave than they had when they came in." A business administrator stated:

I think you have to look beyond what politicians look which is just the student/faculty ratio and credit hours generated or use of classroom space. Those are important, but I think you also need to look at genuine learning. You need to assess where a student was when they came in and where a student is when they go out to see what difference has been made. That's what faculty productivity truly is. They can be in a classroom all they want, but if nobody's learned anything, they're not very productive.

Another business respondent said, "And I think people try to approach it (faculty productivity) from far too simplistic a point of view. I don't think that faculty productivity is necessarily related to hours spent on the task. I think it's not how many students you teach; it's how effectively you teach the students that you teach." And finally a respondent in the "other" category stated, "some means of gauging, and I don't think we've actually established it yet, whether an individual entering as a student has learned, has been motivated, has improved his skills that apply not only to the specific curriculum but to the broad based institutional mission."

Research and service outcomes were even harder to qualify. Even when the administrators were talking about the ideal outcomes in research, they strived to use qualitative measures instead of the normal quantitative measure of counting the number of articles, books and professional presentations. The respondents also tried to link research productivity to the classroom whenever possible. As one academic administrator stated:

The ideal situation as I would see it, would be one in which one can put some kind of quantitative value on the issue of research beyond simply the closeted kind of research, if you want to use that phrase. And its application to teaching, because the responsibility of the university is to teach. To teach, train people who will go out in the future and do certain things. If we can not place some kind of quantitative value on it, the faculty who are doing the transformation

of the curricula, who are doing things that make the theoretical much more practical to the student, then we have to say you're just teaching.

None of the respondents had a concrete answer for service outcomes. One academic administrator stated, "Outcomes of good service are tough problems being solved for the betterment of those who faced the problems.

Several respondents stated that they were satisfied with what is being collected but wanted an ongoing record instead of a "snapshot" of the faculty member. and would like to see the information aggregated across departments, schools and even institutions. As one of the respondents in the "other" category stated, "I'm satisfied with the profiles that exist...student evaluations, peer evaluations, their comparative assessment of employment...I'm fairly satisfied with the scope of the data. I sometimes wonder if we could scrutinize it more carefully..." One academic respondent stated of the materials collected that if you could generate an ongoing record "aggregated in some systematic sense having to do with research, student evaluations and the like, by school and by department, then those would be excellent measures of faculty productivity."

And as another academic administrator stated, "But looking at comparative data across colleges with the institutions and then with similar colleges in other institutions would be very useful."

Without standards and agreed upon criteria it is difficult for administrators to isolate the ideal productivity standards they wish to collect. Most of them were able to give some general examples of items that they would like to track, but they could not really define the actual specifics that would be collected. It was

very important that there was quality interaction between the faculty and the students, but there was no revelation on how to measure it. As one business respondent stated:

Education is not just delivering instruction. If it were really delivering instruction, we would be selling credits, and that is a big issue, I think, for conscientious faculty members. They do not, I think, like the idea of anything that smacks of selling credits. They like to feel that something is happening in that interaction between the faculty member and the student, and I think that is a very important interaction... We're trying to develop citizenship and values and at least a questioning of values or an understanding of values. It's not merely open up the head and dump in the knowledge and then come out of here with a diploma, because that doesn't mean anything. So I really think faculty productivity is a very very complex issue. It can't be broken down simplistically, but I think that faculty members have to be more involved in determining what are appropriate measures, because public perception of academe is a very distorted one and it's a very demanding one. Studies have shown that parents are fairly benign; they're not really critics of higher education, except for the expensive ones, and then they want to be sure that they're going to get something for their money. But at the public college level most parents have respect for academics. They do think the school knows best; they are not going to try to tell the school what they should teach. But they have a high expectation toward the end result leading toward a job or to graduate school. For my money, I want something to happen... There has to be a better way to package what it is that a faculty member has to do to do his or her job well.

Question 7: What are your perceptions of the fiscal outlook for higher education at the present time?

As is shown in Table 15 a majority of the respondents were not optimistic when asked their perception of the fiscal outlook for higher education at the present time. All of the respondents were directed to focus on the outlook for New Jersey initially. Some of the respondents then went on to describe the national picture. Even the respondents who were neutral admitted that since

there has been little or no increase in the state aid over the past years, this translates into an actual decrease since the cost of higher education has increased each year. Only two respondents indicated that they were optimistic.

Table 15

Perception of Current Fiscal Outlook for NJ Public Colleges/Universities by Pattern

Pattern	Optimistic	Neutral	Pessimistic	Do Not Know
Academic	2	3	8	1
Business	0	1	4	1
Other	0	2	1	0
Totals	2	6	13	2

The two optimistic respondents were both academic administrators. One stated, "I think that the governor has proposed a budget which takes a very significant step for higher education, and that is her performance funding initiative." This administrator then indicated that this will have a "potential to focus institutions on positive outcomes." Depending upon the benchmarks developed, this respondent feels that "there has to be enough money to make it worth while for the institutions." Based upon the hope that the money will be budgeted, this respondent felt that the funding to higher education will benefit. The other optimistic respondent also felt that there is an upswing in the outlook for higher education. "I'm kind of optimistic at the moment. Given that the economy is as good as it is, with a President who seems to be endorsing

education, and Whitman, who has been a problem for at least public colleges, even she is starting to sound as if she cares a little about us."

The neutral respondents were not optimistic or pessimistic about the outlook. Most indicated that their perception was like this academic respondent who stated, "I expect it will be a steady state. I don't see any indications that the state is going to do anything to enhance its support for higher education." Or as a respondent in the "other" category stated, "I think at this particular point in time the likelihood is that our funding as state institutions will remain level. I think that's a best case scenario." While the neutral respondents were not pessimistic about the fiscal outlook, their answers were definitely not optimistic. One academic respondent in this group stated, "So my guess is it (fiscal outlook) will be a steady state, and I think over time that we'll be forced to look beyond public funding." Two respondents indicated that the state "negotiates the salaries for our faculty and then doesn't support us for the amount that they've negotiated." So while the neutral people stated that on paper the state has not decreased funding, because the state does not fully fund the increases it negotiates, the actual outlook is a decrease in funding. An academic respondent stated, "I think that we're going to have to deliver more and better quality with the same or less. It may be more money in terms of absolute dollars, but less in terms of real value." A business respondent stated it well:

I think regardless of who is sitting in the governor's chair, I think there will be a relatively declining resource allocation from the state. This is not to say there's an absolute decline. I think there will be increasing funding, but I think the cost increases including inflationary pressures, will exceed the funding, so there's a relatively greater decline happening.

By far the pessimistic respondents were the majority. Their responses ranged from "grim" to "we're dead meat". One academic respondent stated, "there are not enough resources to go around, so people are going to have to become more competitive." Another academic administrator indicated that due to changing public pressure, "we are obviously getting a declining percentage of the state budget." A business respondent stated, "The problem being that there are many more demands on the public dollars that have higher political visibility." But overall the pessimistic administrators would agree with the academic respondent who stated, "If you look at the budgets in the past, you don't even have to go ten years, you can see how there was a sharp decrease in funding in the late 80's and after that there were gradual decreases and then more gradual decreases, and the decreases are continuing or have stayed the same."

Beyond these simple answers, there were many other concerns stated by the respondents. Many of the administrators indicated that public education is becoming privatized by the decreasing funding. Others suggested that higher education has not been a good advocate for itself and has not done a good job of explaining the public benefit of a college education. Several administrators stated that not only is there a short fall in the operating moneys, but the infrastructure is deteriorating without much help in the future to address this situation.

The privatization of public education was a common theme. As one academic administrator stated, "Publics will have less support from state agencies in particular and that is usually their principle source of external

funding; so, we've gone from state-supported to state-assisted to state located." As another academic respondent stated, "It seems to me that everything trends towards privatization and that more and more we have to support ourselves with other than state-funded dollars." The various respondents stated that to close the gap in funding, several methods are being employed. The obvious one is to increase tuition. As one business administrator stated, "Relatively fewer appropriations over time...larger proportions coming from other revenue sources...tuition will go up. There will be a continuing push on the tuition side, which you can offset by two ways...either you increase tuition rates or increase enrollments...differential tuition rates for different programs." But in the tuition wars, public colleges and universities have been reluctant to pass on the cost to the consumer that way. An academic administrator stated, "Some institutions in an earlier period of reduction of public funds, went quickly to raising tuition on a consistent basis...Other institutions were slow to raise tuition and...because the Board and the faculty were hesitant to raise tuition...now we have to deal with the issues of having lower tuition than most institutions in the same sector." However, financial facts of life have made it imperative that tuitions rise to meet the increased costs. As a respondent in the "other" category stated:

Tuition is going to go up. I don't think there's any question about that. Certainly for us at this institution, because we've always been sort of at the bottom of the heap when it's come to state support. We started out at a lower level that we should have for a lot of historical reasons, and we really never caught up. We've also been in the past very reluctant to raise tuition, so we now find ourselves in the situation where in order to do the kinds of things that we really have to do...things that are desperately needed...infrastructure repairs and other kinds of updates, we just have to raise tuition.



The ability to raise tuition is a result of the increased autonomy given to public colleges and universities in the recent past. As a respondent in the "other" category stated, "The state increasingly is trying to push onto us responsibilities that we haven't had before, for example, we're paying benefits which the state is sort of pushing on us in the name of autonomy..." This increased autonomy is both praised and feared by the administrators. As one business respondent stated, "State institutions are becoming more and more autonomous, independent of financial aid, and that has both good and bad results. What it does...we become more self reliant and find ways of generating revenues, so we're more like a private institution." The push for public institutions to become more privatized has resulted in an increasing marketing by the institutions. As a respondent in the "other" category stated, "...we've recently established the position of vice-president for institutional advancement which we've never had before whose sole job and responsibility is to go out there and get money." This trend is disturbing to some of the administrators since it is blurring the line between public and private institutions. As one of the academic administrators stated, "That is we've gone out and now we're doing marketing...if you have a degree from a private institution, the private institution has a focused, targeted effort to get your money, so you usually give your money to the private institution. Now the public institution is also doing that focused, targeted campaign to have you contribute to some of the things that they're doing." The privatization is extending to other parts of the public institutions other than marketing. Some administrators stated that the need to increase tuition, decrease remedial work

and meet the accountability benchmarks of time to degree have made the public institutions more selective. As a respondent in the "other" category stated, "I think the fiscal crunch is going to in some fundamental ways probably restrict access to these (public) institutions." This trend is troubling to some of the administrators. One of the academic administrators stated, "How can we be selective while serving the public? At the same time we're being selective, how can we represent the various interests that the state has?" This administrator goes on to say that in order to serve the public needs, the public institutions 'with the same mission may have to come together to form coalitions to address some of the issues as it relates to the state legislature and the governor."

The lack of advocacy about public institutions and their importance to the state was a common theme with the administrators interviewed. Several indicated that we are in a time of greater accountability. The public is failing to see the output that results from the increased costs. As one academic administrator stated, "...the cost of education is increasing at such a level that it alarms the public...and they don't necessarily associate the cost with the output that they're seeking." According to some of the administrators, this loss of public support is due to the "strong perception that education is a private good and therefore why should the public pay for a private benefit." As a respondent in the "other" category stated, "I'm concerned because I don't think higher education, generally speaking, has been a good advocate for itself. I don't think that we have informed the larger community about the real value and importance of what it is that we do." As one of the business respondents stated, "That is very

different from the way it was at one time where public education was preparation for citizenship and democracy and therefore there was a common understanding that yes, taxpayer dollars should support this." But now as one academic administrator stated the public "are less inclined to see higher education as a public good and more inclined to see it as a kind of private effort, where the benefit accrues mostly to the individual and not the state." Also the public "perception of the under-worked, overpaid faculty has crept into the political process in a way which influences decisions in our budget, and which threatens, quite frankly in my judgment, certain traditions in the institution."

Lastly, the decreasing support has, in several administrator's opinions, hurt the ability of the institutions to address the crumbling infrastructure. As one academic administrator stated, "There's been very little attention to the infrastructure of the colleges and universities, and that's particularly crucial in a state like New Jersey which arbitrarily in the 1960's decided it was going to go into higher education and built everything at the same time. Now everything's deteriorating at the same time." Adding this all together, led a majority of the administrators interviewed to agree with the academic administrator who stated, "So it's really going to be very difficult for higher education."

Question 8: What are your perceptions of the fiscal outlook for higher education in the next three to five years?

The administrators interviewed were not optimistic about the fiscal outlook for New Jersey public colleges and universities for the next three to five years. As shown in Table 16 the distribution is very similar to the last question. What is

interesting is that the number of pessimistic respondents increased by two when looking into the future. One of the academic administrators remained optimistic and five of the respondents remained neutral. Two were unable to make any clear predications for the future. While not many of the administrators interviewed were able predict the future with any confidence, there were several interesting predictions made. Eight predicted that either some form of performance funding would be in place within five years or institutions will have to become more entrepreneurial to survive. Five predicted that the bleak fiscal outlook will continue and force increases in tuition or decreases in service. Six predicted that because of the expensive technology, the forgotten deferred maintenance, and outside competition, the outlook is very problematic. However, the predictions were not all gloomy. Four were optimistic but only if the economy and the state criteria for accountability allow for some movement. Two even predicted a slight increase during the election year but thought it would be probably lost after the election.

Table 16

Perception of Future Fiscal Outlook for NJ Public Colleges/Universities by Pattern

Pattern	Optimistic	Neutral	Pessimistic	Do Not Know
Academic	1	2	9	2
Business	0	1	5	0
Other	0	2	1	0
Totals	1	5	15	2

Autonomy and accountability are some of the key words that were used by the administrators interviewed. Not all of the respondents looked favorably upon autonomy. As one business administrator stated, "The tendency in this state has been to keep talking about autonomy, which to me means avoidance of responsibility." With autonomy comes accountability in the form of performance outcomes. Performance funding or incentive funding were the most talked about prediction for the future. One academic administrator defined incentive funding as "they (the state) set a standard and a college or university agrees to that standard. The next year's budget is linked to meeting those standards, so that if an institution says seventy-five percent of my students will score at this level, the legislature says OK. If seventy-five percent of our students reach that we'll give you a twenty-five percent increase, if not you get nothing." While this is an unknown factor, most of the respondents were optimistic that given the right benchmarks and some ability to set criteria, most colleges and universities will become more efficient and also have the ability to control their funding in some measure. Two of the respondents indicated that this might also help to make the colleges and universities more entrepreneurial. One of the business respondents stated that "enrollment growth can be exploited in a positive way if we look ahead and anticipate it." This entrepreneurial spirit may also cause several institutions to band together in consortia. For example one academic administrator talked about group purchasing as a way of helping to cut costs. "I mean every college and university buys computers, but we all negotiate on our own...Often the state can be beneficial to institutions if it acts as though it's the state." However, the

cost cutting measures according to one respondent must not lead to any cuts in service.

The respondents that were most pessimistic about the future cited that there were too many unknowns at the present time to be sure of a turn around. As one academic administrator stated, the state "sees education as a mature industry and one that has to begin carrying its own weight. In that sense also they are saying to the general public that it must be willing to bear a greater proportion of the education expense..." The pessimism felt by the respondents was that this means as one of the respondents in the "other" category stated, "I think that institutions will, for the next three to five years, probably be in a static state funding pattern...but as inflation continues to operate on the dollar, steady state funding is a reduction in funding." Due to the perceived reduction in support, three respondents stated that tuition will have to increase or services will have to be cut to close this gap. As one business respondent stated:

It's (state funding) going to hold pretty constant over the next few years, but I see real pressure because costs aren't going to stay the same. We've got increases in benefit costs, insurance, we have contracts being negotiated with faculty but not funded. So you have to get the money from somewhere. So you either take it from current operations and then don't offer as much, or you start passing it on in tuition increases to the students.

Several administrators saw this as problematic because as one academic administrator stated, "Where are students going to get the money to go to school? They can't depend on state aid, which has been dwindling and is going to dwindle more." And as another academic administrator stated, "More and more the expense is shifting to the student and to the student's ability to borrow.

I have certainly seen a shift from federal and state grant programs to loans, and that will continue." This will continue to feed the perception of higher education cost spiraling out of control. As one academic administrator stated, "I think there is also a counterbuilding pressure of people looking at the so called cost crisis in higher education. They're really looking at a select group of institutions that have extraordinary price tags. But it's spilling over into the rest of us. People are beginning to be more conscious of the costs of education."

Pessimism is also driven by other factors. The need for technology has gripped higher education. This expensive technology is changing the way education is being delivered. As one academic administrator stated, "Here I am worrying about the interpersonal connections that will be gone. I worry about everyone sitting in their homes and taking all these courses." This administrator goes on to say that if this prediction is true, the money spent now on infrastructure is money thrown away. "We're going to end up spending a whole lot of money building a lot of classrooms and it's (higher education) going in another direction." This spending on infrastructure is what causes two of the respondents to be pessimistic about the future fiscal outlook. As a business respondent stated, "Another factor that will continue to drive up costs is the fact that physical plants by and large have not been paid much attention over the years and deferred maintenance continues to be a concern." Another concern is the spending down of reserves to keep up with the increased costs. As an academic administrator stated, "Because we're so underfunded, we're spending down our reserves. I think things probably in the next three to four years out

could be real grim. I think the privates will hold up much better." Finally there is concern from outside competition. One academic respondent was concerned about the University of Phoenix and how that will change the way education is delivered in the state. This was motivated by the news that the University of Phoenix had applied to operate in New Jersey. In The Chronicle of Higher Education, there was an article that stated that the University of Phoenix was withdrawing its application to operate in New Jersey because it did not meet the law that required that its library have at least 50,000 volumes and that a significant number of its faculty have doctorates or other terminal degrees. This may end up being just a short reprieve for the above mentioned academic respondent since the University of Phoenix has stated that it will resubmit the application once these issues have been resolved.

The only optimism that was described by the respondents is the upcoming election and the chance that with the right market forces and performance criteria education could find increased funding in the future. Two indicated that to secure votes, the election could be a positive force for higher education. As one academic administrator stated, "Well, there'll be an election year there, so things will get better during the election year. You know, there'll be votes to be had, so definitely there will probably be a year when things will be a little better." The other positive force is the booming economy. This is helping colleges and universities to increase the return on their investments. However, four of the respondents did not see the booming economy continuing. This and



other unknowns explained above tempered any optimism express by the respondents interviewed.

Question 9: What impact, if any, will the fiscal outlook for higher education now and during the next three to five years, have on faculty productivity?

Not one respondent thought that faculty productivity would decrease.

After eliminating that answer and the three that were not clear as to what could happen, the distribution of answers to this question was relatively even between no affect and an increase in faculty productivity. The explanations for those two answers also indicated the perception of the respondent concerning changes if any in faculty productivity. The results are shown in Table 17.

Table 17

Impact of Fiscal Outlook for Higher Education on Faculty Productivity by Pattern

Pattern	Increase	No Affect	Decrease	Not Clear
Academic	7	5	0	2
Business	3	2	0	1
Other	0	3	0	0
Totals	10	10	0	3

The ten respondents who thought there would be no affect had various reasons for their answer. Three of them stated that productivity is by and large a negotiated item and therefore not subject to change except during collective bargaining. As one academic administrator stated, faculty productivity is negotiated, "so it's not even something we could change if we wanted to." A

business respondent stated that the fiscal outlook is "not going to make much difference, because as long as contractual obligations are being met, that (faculty productivity) shouldn't really change." Three respondents indicated that their faculty were already very productive and did not expect to see any increases in the near future. One of the respondents in the "other" category stated, however, that there might be increases in expectations. "I don't think it (fiscal outlook) will have a great deal of impact on productivity as such. I think what it will do is likely heighten the competition for places in the academy and to that end, the bar may be raised a little in terms of what the expectation is." A business respondent feels that if there are pressures to increase productivity the faculty "will look elsewhere". While salaries have increased, for some professions, the salaries outside are greater than the salaries offered at colleges and universities. Therefore, "you will find probably more scientists and business people looking more to business and industry."

The respondents who thought that the fiscal outlook would force increases in faculty productivity cited several different reasons for their perception. Three saw the changes in technology as signposts for the future. The need to spend more on technology will require faculty to use the technology to be more productive. One business respondent cited "probably look towards things like distance learning and other forms of productivity improvement to reduce costs." However, one academic respondent had a very interesting version of what the future of teaching would be like.

If I were to carry this to an extreme, the faculty person will come into his office in the morning...turn on the computer and his

classroom will be right there. He'll start rapping and interacting with the students as needs be... This faculty member may be attending to student who are not just from his institution... The faculty member will be paid on how many students he services... and so in a sense the average productivity of the faculty person will increase tremendously in terms of scale.

This respondent stated that things like semesters will be a forgotten memory. Students will be self learners who will request a test or evaluation in a course when they feel ready whether it be three weeks or three years.

Other respondents felt that there will be more competition for release time which may be linked to the productivity of the faculty member. Discretionary funds are drying up so there will be more competition for those moneys. As one business respondent stated, "Whatever discretionary dollars they (colleges and universities) have will be focused on the goals and objectives of the institution. Therefore, there will be incentive for the kinds of activities and kinds of behaviors that enhance the mission and goal of the institution." The impact may be felt by the middle faculty. As one academic respondent stated the impact will be felt most by "those faculty who are not the stars." Since the stars are usually very productive, they seem to receive most of the discretionary funds.

Question 10: What pressures, if any, either external or internal, are influencing the need to change faculty productivity?

The distribution of answers to this question do not seem to follow any pattern. As is shown in Table 18, the majority indicated that the pressure is mostly external that is influencing the changes in faculty productivity.

Respondents who thought that there were both internal and external pressures to

change faculty productivity were next. Very few respondents felt that no pressure or only internal pressures were directing changes in faculty productivity.

Table 18

Type of Pressure Influencing Change in Faculty Productivity by Pattern

Pattern	External	Internal	Both	Neither
Academic	7	1	4	2
Business	4	0	2	0
Other	1	0	2	0
Totals	12	1	8	2

The two that answered no pressure were of the opinion that either there were no real pressures, only perceived pressures, or that the word pressures was not a correct term. The respondent in the "other" category wanted to call it opportunity not pressure. The single respondent that cited only internal pressures affecting faculty productivity also did not want to call it pressure. The academic respondent wanted to call it focusing on the core curriculum instead of pressures on faculty productivity. With the decreasing dollars this respondent felt there will be a shifting of faculty focus from specialization to "the core of the liberal arts that have not been treated seriously as they should have in the past."

Twelve respondents felt that primarily external pressures were at work affecting faculty productivity. Two respondents felt that technology should be considered an external pressure. They did not look at technology strictly as an internal pressure to become more productive. Their focus was on the pressure

on the faculty member to keep up with his or her students. As one business respondent stated "Students are coming in with different expectations. I think the pace of technology is putting enormous pressure on everyone...We're a generation that didn't grow up with computers...the students are coming in with a level of technological expertise...a comfort level with computers and surfing the net that puts a great deal of pressure on the faculty members." Several administrators felt the decrease in public support and the resultant decrease in state funding by the legislature is the primary external pressure on the faculty to become more productive. As one academic respondent stated, "The pressures by far are external, and its decreasing public support and the recognition that you can't transfer all of that decrease to the student." This external pressure as another academic administrator stated that "legislative mandates and pushing, consumer wishes, and if you will parent and student expectations" are fueling the need for increased productivity. This decrease in support financially is driving the need to be more productive and more competitive. As one academic administrator stated, "Other institutions in the state that receive the same state dollars are trying to become more competitive. We are busy in development and advancement work, trying to make college more attractive and trying to attract more students." This increase in competitiveness and the need to do more with less is fueling an inspection of tenure. As one business respondent stated:

I don't think the pressures are going to come so much internally, because we operate with a contract and those contracts are negotiated at Trenton. We don't have that much local bargaining opportunities. But I think externally there is starting to be a real interest by Boards of Trustees and state legislators in terms of productivity and tenure. And I think they're going to tend to link the

two together. They're going to insist on some post-tenure reviews periodically and that's where I see the productivity getting linked.

Eight respondents felt that there were both internal and external pressures affecting faculty productivity. Many of the external pressures described by this group are similar to the external pressures described above. Five respondents also saw the decrease in funding and the call by the public for better accounting of what faculty are doing as external pressures. One academic administrator stated, "People would like things from the university and the only way we can answer it is to increase productivity." As one academic administrator stated, "I think there's a public ignorance about the role of college faculty members, and that's also on the part of legislators." This ignorance is fueling calls for greater accountability at the same time that funding is being decreased. As one business administrator stated, "In states of New York and New Jersey, two strong Republican governors and legislatures are saying what is this all about and why are we spending taxpayer dollars on this sort of thing...that leads the general public to ask questions about higher education and its worth, which translates into legislative action when it comes to budget times" This external pressure leads to the most common internal pressure described by this group, reapportioning of dollars. These economic factors and the need to be competitive means that dollars need to be reallocated to meet the demands of the students rather than the needs of the faculty. As one of the respondents of the "other" category stated, "your allocation of resources really is going to depend upon what issues you are attempting to address at that time." Other internal pressures basically are directed at the need to increase quality and the need to

express a clear vision and mission and stick to it. As one academic respondent stated, "Internal forces is the people, I think, want to create an academic environment that is of a higher quality." To create this high quality academic environment, it is necessary for the administration to have a clear vision and mission and as a respondent in the "other" category stated requires that "our administration pressuring the faculty members to stay on track...so I think Boards are putting pressure, administration's putting pressure, because we have fewer dollars."

Question 11: Are there any differences or similarities between your perceptions of faculty productivity and the external perception of faculty productivity?

This was a follow-up question to question ten. The twenty respondents who answered that there were external pressures or both internal and external pressures on faculty changing faculty productivity were asked this question. The overwhelming answer by eighteen of the twenty was that yes the external perception of faculty productivity is different than their perception of faculty productivity. Only one academic administrator and one business administrator were unable to give a definite answer.

What was even more revealing is that eleven of the seventeen that answered yes stated that the public had little to no idea what faculty in higher education did and how they spent their time. One academic administrator stated, "I think the external view is one which sees productivity solely in quantitative measures...and not in terms of the qualitative environment of faculty counseling, advisement, involvement of faculty in the creation of knowledge, research, et

cetera.” This was the most complementary statement concerning the public’s perception of faculty productivity. Other statements followed the one made by another academic administrator who stated, “I don’t believe that people outside of the academic community have a clue about what faculty productivity is.”

There are various explanations as to why this public misconception exists. One business administrator stated it bluntly when he said, “The general public does not believe that average member of the college faculty works very hard at all.” Another business administrator stated, “I think that the faculty members, academics in general, are in the public perception as not working very hard, having a cushy job and having a lot of time off.” An academic administrator gave a different explanation. The respondent stated, “All too often our faculty are visible only on campus and not necessarily in terms of the community.” This respondent went on to explain that unless the faculty are “stars” that are written about in general news or give presentation in the community, the only members of the community that see the faculty are to small minority that actually go to the institution. This lack of community involvement or invisibility means that the public only sees the faculty as “cloistered” members of a closed society. A business administrator stated, “So the public perception is one of great skepticism...there’s somebody who has a guaranteed job, no accountability, lots of time off...The public is pretty damn jealous about it.”

Other reasons why this misconception continues range from lack of communication to the belief that the public just does not care about higher education. One administrator in the “other” category stated, “I’m really not sure



that a great deal of the public considers higher education at all, except when they have to send their own child to an institution." A business administrator stated, "There's a question of faculty productivity and that's often tough to deal with because what do you use as a productivity measure?" The misunderstanding of the public stems from the use of measures that are "not very relevant to the external world." This respondent went on to state that "everyone in abstract is committed to higher education", but "they don't think we're spending our resources as effectively as we should." Four respondents stated that they felt that higher education has not effectively told its story in terms that the public can understand. As one business respondent stated, "I don't think we've done a good job of telling what faculty do; because, I think in large part it's the ivory tower. We've lived a sheltered life that is on the whole still pretty exclusive when you look at the numbers."

Question 12: What strategies has your institution developed and or implemented to address current faculty productivity?

The responses to this question could be grouped into one of four categories. Five of the respondents answered either "none" or "I do not know" to this question. One of the respondents that answered "none" stated that the faculty is already so productive that there were no real strategies to try to increase productivity. Three of the five respondents in this group were administrators in the business category. Three academic administrators outlined student oriented programs to help productivity. The rest of the strategies fall into the category of faculty oriented programs.

The student oriented strategies to increase faculty productivity also were instituted to help the students achieve. One academic administrator detailed a program that expands the schedule in such a way as to allow more students access. "We now have more classes being offered on Saturday and in fact we have some classes being offered on Sunday morning." The idea behind this is to better utilize the full time faculty to offer courses at times that are better for the student population. "We believe that by permitting faculty, we're not talking about adjuncts, we're talking about full time faculty, to be more creative in the times that they schedule, we can deal better with the student population that we have." Another academic administrator explained a plan that supports that goal of student success. Since that is the goal, the "plan focuses on academic excellence, quality enrollment management efforts, quality advising efforts, and quality retention efforts." Incentive grants are offered to the faculty that address these aspects of student life. A third academic administrator outlined a plan to help increase qualitatively the outcomes of research productivity. This plan engages the student in the research process. "We have more dollars being allocated to support collaboration between faculty and students in research, not with the idea of producing a grade, but research study with the notion of enticing students to do research." What is even more interesting about all of these student oriented strategies is that the respondents are all from the same institution.

The majority of the strategies were faculty oriented. Of these programs by far the most popular strategies included time and money to facilitate faculty

productivity. Strategies of six respondents were directly related to money such as internal grants, incentive programs for faculty development, and actual stipends for coming in for workshops. The strategies of seven administrators were linked to some form of release time such as sabbaticals, number of credit hours per semester released for research, and time either released or bought for innovations in teaching. Most of the respondents stated that there had been in the past little accountability for the release time or grant money. As one academic administrator stated, "We spend a lot of time looking over the projects they're going to be working on that will warrant their getting a semester off, and absolutely no time evaluating the projects when they're done." Another academic administrator stated that recently the focus is on producing something with the grants that are given. A third academic administrator stated that if he could require it, he would like to make public all the activities so the faculty can see who is doing what with the time and money given to them.

Other strategies that are faculty oriented included workshops, mentoring, faculty development and redefining scholarship. A respondent in the "other" category described a professional development series where "they have regular workshops on teaching skills and publishing skills." A business respondent talked about the program that linked internally funded research with faculty development. This program helps to foster mentoring and utilizes contemporary experts to help other faculty to become more efficient with things like technology, developing courses, student evaluation and teaching. An academic administrator described another mentoring system where tenured faculty help untenured

faculty by doing programs on how to qualify for reappointment, tenure and promotion. The most interesting program was described by three academic administrators from different institutions that essentially redefined scholarship. As one of them stated, "The most important thing that we've done is to be certain that as we've asked faculty to change the way they spend their time, we change the reward system. It's one thing to say to the faculty that we value your teaching and we want to reward you for it, and then to turn around and reward them primarily for publication." Another academic administrator stated that their institution had also embraced all four areas of scholarship as described by Boyer instead of only rewarding the scholarship of discovery. Another academic respondent stated that their redefinition of scholarship "will allow the faculty who want to be mainly in the classroom to develop some ways of gauging what kind of productivity such as engagement with students as a form of productivity ...". Additional moneys are made available for this research.

Question 13: What strategies has your institution developed and or implemented to address faculty productivity in the future?

As with the last question, the majority of the strategies described are faculty oriented. Only one administrator in the "other" category described a student oriented program to increase faculty productivity. Likewise, six respondents stated that nothing was either developed or implemented to address future faculty productivity. As one administrator in the "other" category stated, "We really don't anticipate much change in our strategies for faculty productivity. I think we're pretty content with the balance we have."

The faculty oriented strategies described are very similar to the ones described in the previous question. Money and time were very popular strategies for increasing faculty productivity. Two institutions are developing methods to help the faculty have more determination in what the standards of productivity are used; however, that hinges on the state institutions being given more autonomy and freedom from statewide collective bargaining. One academic respondent likened autonomy to privatization. "Privatization may be too strong a term, but it clearly means the wherewithal to set tuition, hire faculty, et cetera in a way which is not uniform across the state." One academic administrator pointed to the push by the state for post tenure review as a way of increasing the productivity of the tenured faculty which is the majority of the full time faculty. A business respondent indicated that tenure is harder to achieve and the number of one year appointments is increasing. This allows the institution in the future to "review trends to insure that we didn't over stock departments that may have had a leap or bubble of enrollment that was not a continuing trend." Finally three administrators described strategies to improve productivity by increasing technology training of faculty in distance and web based learning. However, as one respondent in the "other" category stated, "...not all of our faculty have computers and we certainly would like all of our faculty to have computers. Our aim right now is to provide at least one computer for each faculty office, but we're not there yet."

A respondent in the "other" category stated that the programs being developed address basically what was described by other administrators. This

respondent, however, wanted to see the institution do more. The respondent stated that this strategy would not cost any money. It is simply to "make our expectations for student services clear, and elevate the importance of students in the work we do, and move to attract stronger, I don't want to say better, stronger more committed students. My expectation is that the expectation of students will contribute directly to the expanded production on the part of the faculty." This respondent went on to say that "when the expectation on the part of the student is that they will come to class and have an exhilarating academic experience it puts a different set of expectations on the faculty." The population the institution serves has expectations. The respondent went on to state:

I think as public institutions we have a responsibility to serve the public...our public...and our public is in part shaped by the geography surrounding the campus. I think that we can at the same time be concerned with the construction of the student profile which is motivational and inspiring to everyone that we bring into the university. So to attract students who would be involved, for example, in an honors program and let them chase each other, and let them pull folk who are not in the program through their behaviors is to me a healthy mix...population mix. There are those who argue for an elite admissions approach. That is not my argument at all. I am much more concerned with exit conditions than with admission conditions. I think that you can run a well respected and effective academic program if your exit conditions are real so that students who come out of your programs are competitive, are competent, and have been affirmed through the process. Your reputation then becomes one of producing students who are competitive, effective, and affirmed through the process. That is the largest challenge for institutions of higher education and increasingly the challenge for all educational institutions in my judgment. It is easy to take the best and boast about turning out the best. But the challenge for our society and for the educational community is to take people where they are and to get the best out of them that they have. And I believe in humanity in a way that says to me that there is enough in all of us to at least exceed the requirements for a bachelor's degree.

Question 14: Is there any change or contemplated change in the mix of full time versus adjunct faculty?

This question was generated by the pilot study when those reviewing the questions asked if this was part of the study. The participants in the pilot survey thought that there had been a dramatic increase in adjunct faculty which would provide for short term increases in enrollment. However, the people participating in the pilot study felt that adjuncts had continued beyond the short term increases and wondered how that would affect faculty productivity. When asked the question, the majority, thirteen respondents, felt that their institution was increasing the full time positions and decreasing, if not in number at least in percentage, the adjuncts teaching. Six respondents felt that the number of adjuncts were continuing to increase. Two respondents felt there were no changes in the mix and two respondents did not know what was going to happen. See Table 19 for the details of the breakdown by category.

Table 19

Change in Mix of Full Time versus Adjunct Faculty by Pattern

Pattern	Increase of Full Time	Increase of Adjuncts	No Change	Do Not Know
Academic	9	4	0	1
Business	2	2	1	1
Other	2	0	1	0
Totals	13	6	2	2

There were two overwhelming reasons given for increasing full time faculty. The first reason was the feeling that full time faculty were of higher quality both in teaching and student contact. This was not due to the caliber of the people in each group. As one academic respondent stated, "Adjuncts do very well with the students and I think they provide high quality classes." The overwhelming feeling was that adjuncts can not spend the extra time outside the classroom to complete the educational experience. As one respondent in the "other" category, who was an adjunct in another institution, stated, "I don't want to denigrate the use of adjuncts as a lowering of instructional standards. The difference often is that when I left my class as an adjunct instructor, I was not available until next week. I think that a critical part of the learning environment is formed and reinforced by access to professors outside the classroom." Also a primary reason that adjuncts are not considered as productive as full time faculty is their inability to serve on committees and participate in the vital governance of the institution.

The reason six respondents stated that the number of adjuncts is increasing in response to increasing enrollment. When probed, two admitted that the increase is only in their specific school but that for the entire institution the number of adjuncts is probably staying the same or even decreasing. One of the academic administrators stated that unless the institution capped its enrollment, adjuncts are a necessary fixture in higher education. But two who felt that there were going to be increases in adjuncts also felt that if the full time faculty could be redirected to teach the required lower division courses, the need for adjuncts



could be reduced. As one academic respondent stated, "What we try to do is make sure that core courses are taught by full time faculty."

Question 15: Do you have anything else you would like to add to this discussion?

Most of the respondents answered no to this question. Only seven out of twenty-three had something else to add to the discussion. When examined, for the most part it was a restatement or addition to what was included in previous answers. One academic administrator thought we need a redefinition of faculty productivity. "I'd increase the teaching/learning aspect and classroom productivity as inclusive of that. I would look at the notion of incentive funding." This administrator went on to talk about the need to get the faculty more involved. "I'd have faculty involved in student life more actively, whether it's recruiting students, whether it's mentoring, whether it's participating in student clubs..." This administrator goes on to say that if we could devise a way for advising and mentoring students as part of productivity, it would help the students and faculty at the same time. Another academic administrator stated a similar idea when he wanted to broaden the definition of productivity. "Some people would interpret productivity simply in terms of research. I would summarize by saying that it all has something to do with student success. If our students aren't...getting out of here with a good sound education, then we're not really performing the function that we're supposed to be performing." A third academic administrator voiced concern about the lack of accountability for faculty. "I as an administrator am always concerned about the degree that we use the honor system with the faculty. Most faculty I know come to class, to the

university, three days a week. They are supposed to be, I know, doing all of this research and all of this paper grading the other two days of the week, but I really feel again, some do but most don't. It's upsetting how little we really look over what is expected of these people and hold them accountable." Finally two respondents felt that the lack of communication was hurting the profession. One academic administrator stated:

The publics, and I use that in the plural, are looking askance at what they call productivity from the faculty. They don't understand what's really required to be an effective, successful faculty member. I don't think the universities do a good job of communicating it, I think individual faculty members really don't know how to explain what their workload really is. What is it they do that people who aren't in academia can sort of match up with what they do to see that the effort, the energy, the quality, the effectiveness is there in what they do, just as it may be measured and indicated by the nonacademic in their line of work. Until we do that, I think we leave ourselves open to increasing attacks on "productivity". And I do believe, though I don't think in the immediate future, there will be changes in productivity, there will be requirements that unless we are more successful in communicating what we do... then I think the publics, not necessarily the privates, for publics then workloads are going to be imposed and they're going to be increased.

This concept was also well stated by a respondent in the "other" category.

I think that higher education in particular, education in general but higher education in particular, is challenged to become a better advocate for itself in terms of the productive value that we have for society. The productive role that we play in shaping society. We've not done that very well. We've not informed our communities about the challenges, we've not elicited support from them to help us engage in the political process for adequate budgets. We have been comfortable with a historical notion of our distance from them. And I think that has to change rapidly or we will be compacted in ways that will not be good for society and certainly will not be good for all these youngsters coming out of public schools at a time when a bachelor's degree or some kind of specialized training is imperative.

## Chapter V

### SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

#### Summary

A diverse group of administrators was interviewed for this study. The group had an average of twenty-five years in higher education to draw on for their answers. Since there were almost twice as many males as females, the indication is that the ranks of the upper level of administration are still mostly male. A majority (seventy-four percent) hold a doctoral degree, and the respondents have been in their current post for an average of more than eight years. The academic category was the majority of respondents with sixty-one percent of the respondents and business category was second with twenty-six percent of the respondents. The three respondents (thirteen percent of the respondents) in the "other" group seem to fancy themselves as coming up through the ranks, or as two of them stated "on the job training".

When asked to describe faculty productivity, the classic answers of teaching, research and service were the most common answers. Teaching clearly was the most important aspect of faculty productivity with over ninety-one percent of the respondents mentioning it in their answer. Research or scholarship came in second with almost eighty-three percent of the respondents mentioning it in their response. Service was a far third with only fifty-seven percent mentioning it in their response. What was unexpected was the two who stressed accountability as a major component of faculty productivity.

Some of the respondents acknowledged that faculty productivity is not just a quantitative counting of credits taught, publications written, or committee participation. Faculty productivity is also a qualitative measure of how well faculty do their various tasks. While a few respondents acknowledged that there were some faculty that use "a full time faculty position as a steady income and benefits and have their life elsewhere", the majority of the respondents felt that faculty are very hard working but misunderstood by the public and even by some people within higher education. Some respondents tried to give some examples of what would be included in faculty productivity, but most acknowledged the fact that faculty productivity is "a very difficult area to measure as well as to manage". This concept was substantiated by the literature in the section of Chapter Two entitled "Defining Workload and Productivity in Higher Education". St. John described the measurement of productivity in higher education as a problem while Massy and Wilger described the complexity of productivity as blind men trying to describe the elephant. Although said jokingly, some of the respondents stated that faculty productivity has decreased in recent years or is an "oxymoron".

When asked what characteristics an ideally productive faculty would possess, the answers again focused mostly on teaching, then research or scholarship, and finally service. All of the respondents mentioned teaching in their answer, with seventy-eight percent of the respondents mentioning research and scholarship, and less than half (forty-eight percent of the respondents) mentioning service. What was interesting about the answers was that over half

of the respondents focused not only on teaching but also on the quality of student interaction. Many of the respondents felt that "the ideal teacher is someone who is caring and concerned about the students". Availability outside the classroom also ranked high as characteristic of an ideally productive faculty, as well as helping students along the progression toward their career. This output concept of productivity is supported by the literature which described how the faculty perceived productivity. According to Massy and Wilger, the faculty perceive productivity as a synonym for results. Johnstone et al also indicate that productivity is the ability to produce multiple outputs in the three areas of teaching or learning, research or scholarship and service or professional activities. The interesting aspect of research mentioned by the respondents is that it was not focused on the scholarship of discovery. Most of the respondents felt that applied research or the scholarship of integration was more important than the research of discovery. The ability to integrate what has been discovered and then apply it to their teaching was an important aspect of the ideally productive faculty.

The misunderstanding or misconception of faculty productivity was evident when the respondents were asked what productivity data is collected and who uses the data on a routine basis. The answers even from respondents within the same institution were at times vastly different from one another. Most of the respondents gravitated toward workload data instead of the type of productivity data described in the previous questions. The literature supports this when it states that workload and productivity are often used interchangeably. Most of the

respondents also admitted that any data collected is a snapshot of that year alone, and that very little effort is made to collect the data longitudinally over many years. Several administrators referred me to their office of institutional research, which indicated that information may be collected, but there was a poor job being done of disseminating the information. This may also be the reason why ten of the twenty-three stated that nothing was collected or they did not know. The respondents that had some idea of the data being collected for the most part identified routine information that is collected by all institutions for the state and also for regional accreditation.

The type of productivity data the administrators believed should be collected focused on outcomes which supports the literature in the section of Chapter Two entitled "Use of Productivity for Accountability". As is stated in this section that external forces are pressing for measured outcomes for accountability and financing. According to the respondents, teaching or more accurately student outcomes were at the top of the list. Accountability again came into the picture with some of the student outcomes such as responsibility for student success, student grades and student retention. The feeling is that faculty productivity should be a measurement of the progress students have made from where they were when they entered the institution. However, no one had specific suggestions on how to measure the student's progress. Even the research outcomes were not the traditional number of publications but more qualitative measurements such as how the research improved life for society and the community served, which tied into the service component of faculty

productivity. Administrators seemed to also want the data collected and aggregated over many years and across individual schools and other institutions. This comparative data was considered important to some administrators to help set institutional productivity in light of the call for performance funding. However, the administrators did not agree on specific productivity data to be collected. When pressed, most administrators reverted to classical quantitative workload data such as student contact hours, credit hours, faculty teaching hours, faculty release time or cost, faculty office hours, faculty-student advisement time, number of students advised, research publications or presentations, and faculty time spent on service.

For the most part, administrators were not optimistic concerning the fiscal outlook for higher education both now and in the next three to five years. The clear majority felt that funding will either decrease or remain in a steady-state, which in light of inflation is also considered a decrease in funding. The concern voiced by the administrators was that this level funding will force public institutions to become more like private institutions to find alternative funds. Increased tuition, increased selectivity of students, and increased reliance on marketing and outside funds may force the public institutions to abandon their mission of serving the public need for higher education. The feeling that public higher education is a mature industry that must compete with the private higher education institutions is driving the decrease in legislative support and the calls for performance based funding. Administrators interviewed feel that public institutions of higher education will need to either increase their funding base or

be forced to decrease services. In addition, public institutions need to meet the expense of trying to fulfill the demand for new technology and also the need to address the deferred maintenance that has for so long been put off. Some administrators feel that there may be some areas of optimism in the future depending upon how much autonomy is given to the public institutions of higher education to act on their own and not have contracts mandated by the state. Also, performance funding can be beneficial if the institutions themselves have serious input into the performance indicators that will be used to judge the funding in the future. Almost all of the administrators interviewed agreed that public institutions of higher education are going to have to become more entrepreneurial in the future.

While the fiscal picture may seem grim, the administrators were evenly distributed concerning its impact on faculty productivity. About half felt that faculty productivity will have to increase while about half felt it would remain the same. Those administrators that felt that faculty productivity would not increase but remain constant indicated that either they felt the faculty was already very productive or indicated that faculty productivity is negotiated at the state level so it will not change dramatically. The administrators who said that faculty productivity must increase in light of the fiscal outlook cited that faculty will have to be more productive to survive or thrive, that technology will change the way faculty deliver education and therefore change the productivity standards, and that there will be more competition for release time and discretionary funds as the institutions find it necessary to go out and solicit the money. Johnstone in an



issue of the Electronic Newsletter *Learning Productivity News* indicated that when states attached funding to their policies, the greatest impact on productivity resulted.

The majority of the administrators felt that external pressures are influencing the need to change faculty productivity. Taken together, seventeen agreed that there were external pressures at work while only eight cited any internal pressures. The internal pressures mentioned were mostly the reappropriation of money due to fiscal problems. This situation causes the administration to readjust its vision and require increases in productivity. This is supported by the literature in the section of Chapter Two entitled "Defending Workload and Productivity". The literature lists mostly external pressures that strive to adjust faculty work schedules, make universities more efficient and affordable, and make higher education accountable.

In the interviews, new technology was cited as an internal pressure to change productivity as the way education is being delivered is being changed. This is not substantiated by the Electronic Newsletter *Learning Productivity News*. It stated that technology has more of an esthetic value rather than an economic value. Technology was also cited as an external pressure, due mostly to the fact that the incoming students are more familiar and more comfortable with technology, forcing the faculty to adopt technology as part of their educational process. Likewise the move by the state to post tenure review will apply pressure to tenured faculty to maintain higher productivity standards. Due to decreasing support by the state the drive between institutions to be more

competitive is stronger than ever. Schedules will be more flexible to reflect student needs and faculty will be required to deliver the education in ways that make it more convenient for students.

As is proven throughout the literature, almost all of the administrators' surveyed thought that there were differences between their perception of faculty productivity and the public perception. Eleven administrators felt that the public either has no concept of faculty productivity or has a misconception of what is included in faculty productivity. The public views faculty members as underworked over paid prima donnas who have little or no accountability. Since the faculty either do not come on campus that often or when they do come on campus stay closeted in their laboratories performing useless research, the community believes these invisible faculty should not have all the protections that are missing in the "real" world. Tenure, academic freedom, and autonomy are privileges that faculty take for granted that the public does not feel should be guaranteed.

When asked what strategies their institution developed or is implementing to address current and future faculty productivity, a majority of the administrators reverted to current programs that would help faculty research such as release time, research incentive funds, and sabbaticals. A minority, however, did cite student oriented programs to either change or increase faculty productivity. These took the form of expanded schedules and plans that either increase the engagement of the students in the process or increase student success. Redefining scholarship, mentoring faculty, faculty development and faculty

workshops also seem to be popular programs cited as ways to address faculty productivity. Future strategies include many of the same programs already mentioned. Several administrators indicated that with the changes contemplated in autonomy and collective bargaining, future programs may be more aggressive. Many of the administrators indicated that strategies to change faculty productivity must include strategies to utilize new technologies. Over five administrators either did not know what was being done now or future plans to address faculty productivity.

Finally, most of the administrators indicated that there would not be a serious increase in adjuncts utilized in the near future, unlike the literature that seems to point to the greater use of adjunct to decrease costs. Most surveyed indicated that either they were replacing the adjunct positions with full time positions or were keeping the number of adjuncts the same. The most common reason given for this change in philosophy is that full time faculty are usually more accessible to students, are available to participate in other activities than classroom teaching, and in many cases are of better quality. The ones that indicated that there was possibly going to be an increase in the number of adjuncts for the most part used fiscal realities as a the reason. The institution could not afford to pay a full time faculty member to teach courses that have temporary influx of students.

### Conclusions

What are the perceptions of administrators concerning faculty productivity and how is it defined by academic and business administrators in four year public institutions of higher education in Northern New Jersey?

The perception of administrators is that faculty productivity is hard to define, and because it is hard to define, it is even harder to measure. Most administrators are more comfortable talking about workload measurements that are quantifiable. Since there is no real agreement on what higher education produces, administrators agree that the measurement of faculty productivity is more qualitative in nature. "Productivity problems are often rooted in a confusion about the ultimate objective of higher education and the lack of clarity about the ultimate customer." (Meyer, 1998, p. 52) Administrators agree that the public does not really understand faculty work and productivity. The administrators know that the public wants them to focus more on teaching and student interaction. Administrators also know that business people find higher education very inefficient and wasteful. The administrators cite that the business community is pressing for higher education to be more receptive to their needs and produce an end product more quickly and less expensively. Since legislators listen to the public and business people, higher education administrators understand that both state and federal legislators are pressing for greater accountability through performance indicators and are either maintaining or decreasing support to higher education believing that it is a mature industry that no longer needs to be supported but must go out and make it on its own.

The administrators themselves in their perceptions of faculty productivity cite decreasing levels or claim that the term is an oxymoron. It seems that some in the administrative ranks believe the public notion and perceive "faculty as being unavailable to students, using aging lecture notes, and droning away to nearly empty lecture halls." (Meyer, 1998, p. 32) While some administrators defend their faculty as being very productive, they are really unable to accurately define the characteristics of the ideally productive faculty.

For public institution of higher education offering baccalaureate degrees in New Jersey, the primary mission seems to be teaching. Yet, when the reward system is investigated, research and scholarship are still the primary methods by which faculty are promoted and rewarded. There seems to be a definite switch, however, from the scholarship of discovery to the scholarships of integration and application in the reward systems. This trend also shows that there is an understanding of the ultimate mission and that the scholarship of teaching is slowly making inroads into the reward system. The ability to integrate research into the classroom and to engage students in the research process is being emphasized more and more. Some of the administrators spoke of programs where scholarship is being redefined from the traditional narrow definition of pure discovery to a broader definition that includes applied research and even the scholarship of teaching. As the institutions realize that there are different ways to define faculty productivity, programs will be developed that will address and reward innovations in teaching as much as pure discovery research.

The quality of student interaction and the availability of faculty to the students outside the classroom is starting to be considered as part of the reappointment process. These qualitative student outcomes are cited most when administrators talk about faculty productivity. In order to measure outcomes it becomes necessary for higher education to clearly define its product or "what skills, knowledge, and competencies – and level of proficiency for each – we expect our graduates to possess." (Meyer, 1998, p. 65) While it is quite evident that these outcomes have yet to be defined in any detail, student outcomes seem to be the ones that are getting the greatest attention. "In fact, a time could come when student's learning outcomes are the only measure of an institution's productivity, and faculty workload will no longer be an issue of concern as long as the institution is producing evidence that students are learning and learning productively and well." (p. 65)

Is productivity defined differently by academic administrators compared with business administrators at four year public institutions of higher education in Northern New Jersey?

Surprisingly there was little difference between the perceptions of academic administrators and business administrators concerning faculty productivity. Since most of the business administrators had doctorate degrees as their terminal degree instead of just a business degree, the business administrators had a broad academic and business experience to draw from instead of a strict business experience. This might account for the similarities. The overwhelming majority of both groups listed teaching and student interaction

as the most important part of faculty productivity. The second for both groups was research or scholarship while service was third. Business administrators were more likely to use quantifiable workload characteristics when trying to describe the ideally productive faculty, but not to the exclusion of the qualitative characteristics. Also, business administrators had a better idea of what quantifiable workload data was being collected and how it was being used than academic administrators. Academic administrators had a better idea of the research and scholarship data being collected. This seems to be because while the academic administrators gather the research and scholarship data for their annual reports, the business administrators use the workload data when reporting statistics to Trenton.

How do academic and business administrators at four year public institutions of higher education in Northern New Jersey perceive the fiscal outlook for higher education at the present time and for the next three to five years?

For the most part administrators have a grim outlook of the fiscal prospects for higher education both at the present and for the next three to five years. With decreasing or stable funding, the public institutions are forced to shift the financial burden to other areas. The traditional area has been tuition. However, the public outcry concerning the high cost of college education at the time that more and more middle class students are entering means that tuition increases are not as great as they have been in the past. To make up for this lack of funding, public institutions of higher education are moving into marketing,

endowments, and alternate sources of money. The administrators cite that the line between publics and privates is blurring and will continue in the foreseeable future.

Some of the administrators see some possibility for optimism, however, they cite certain caveats. It is necessary for the State of New Jersey to give the public institutions of higher education more autonomy. At the same time that the state is cutting back funding, the same state is negotiating contracts with the full and part time faculty that these institutions must honor. If the separate institutions were given the autonomy to negotiate their own contracts, each institution could, much like professional sports, set a salary cap and then try to get as many faculty as possible within the cap. Also, the institutions could use incentives and merit to reward the faculty that produce the most while giving the other faculty a goal to achieve. Also some administrators cited that with autonomy, they could alter their mission more easily to meet the community they serve. Likewise, another caveat is how technology will figure in the future of higher education. If the future is a series of high tech for profit universities like the University of Phoenix trying to reach the most students with the least amount of expense, then the face of higher education will change completely and the administrators cited that they were unable to predict how it will look in the future. One administrator had depicted higher education in the future as a virtual university. This was a prophetic statement since Governor Christine Whitman in her State of the State Address on January 12, 1999, stated that she was opening the door to the New Jersey Virtual University. Further in the speech she states



that distance learning may help those who can not get to the classroom but it will never replace the traditional classroom. The Virtual University seems not to be the replacement of the traditional schools, but is there to attract out-of-state students that would not have normally traveled to New Jersey for a college education.

Do academic and business administrators at four year public institutions of higher education in Northern New Jersey perceive a need to increase faculty productivity in the present and future fiscal environment?

Since the administrators split almost equally on this question with half saying yes and the other half saying no, it is difficult to make any conclusions. Most of the administrators saw external forces as the most influential in causing the need to change faculty productivity. There were some administrators who cited internal pressures influencing the need to change faculty productivity.

Those administrators who said there would not be any need to increase faculty productivity believed that the faculty were already very productive and they saw no need for any increase. Another reason given for the perception that no increase would be forthcoming is that the faculty contracts are still being negotiated by the state and then imposed upon the various public institutions. These administrators looked ahead to having greater autonomy to negotiate contracts with faculty on an institution basis that would be better tailored to the respective campuses. However, until that occurs, the administrators who answered this question negatively do not see much chance for any measurable increases in faculty productivity.

The administrators who answered yes to this question cited changes in the delivery of education and increased competition for release time and money as reasons why they perceive a need to increase in faculty productivity in the present and future fiscal environment. With the general change in education to using technology to deliver education, administrators see this as a chance for faculty productivity to change as well. Only a few had any specific examples of how this would occur and most were not sure if it would occur in the classroom directly or as a result of using technology as a support mechanism. However, all of the administrators who cited technology as a way of increasing faculty productivity agree that the faculty would have to first accept technology and then be taught through workshops and faculty development how to utilize technology correctly. Without the acceptance of the faculty, technology will not gain widespread use but will actually act as a drain on the budget for very little return. One administrator cited as a goal to have a computer in every faculty office, however, there was no mention that the faculty had asked for computers. To place a computer in the offices without the faculty buying in to it, is in some cases to place a two thousand dollar paper weight in that office. The other reason cited by administrators that faculty productivity will increase is the increased competition for release time and money. As discretionary funds dry up and institutions are forced to find alternative sources of funding, the ability to give automatic release time will decrease proportionally. This will give institutions greater discretion concerning who will get the release time and money. The administrators cite that the money and time will be given to those whose goals

are student oriented and will increase student outcomes. Several administrators feel that the change to student oriented funding and release time will help to direct the scholarship to the primary mission of the institutions which is teaching.

Most administrators cited external pressures as influencing the need to change faculty productivity. The pressure stems from the public not understanding faculty work and the decreasing support public higher education is getting from the state. As was stated earlier in Chapter Two, since there are no accurate definition of productivity and the term productivity is used frequently as a synonym for workload, the confusion of the public is understandable. Since the respondents stated that the public feels that the primary mission of the public colleges and universities should be teaching, in the face of increased accountability the public institutions of higher education are changing their focus of scholarship. Likewise, the need to be competitive with other institutions in the marketplace has forced administrators to be more receptive to student needs and has applied pressure to change faculty productivity to meet a changing student population.

Internal pressures are also cited by some administrators as influencing the need to change faculty productivity. The changing mission and vision of the institution is driving some of the need to change faculty productivity. But in most cases, the reapportioning of money was cited as an internal pressure to change faculty productivity. As the needs of the student population change, the administration must change the budget apportionment to meet these changes. If the departments that find themselves receiving less money are unable to change,

the department is at risk of being eliminated. Full time faculty who in the past have had the luxury of teaching their specialty to small classes are finding greater pressure to teach the lower division core courses that were taught by adjuncts. These internal pressures for the most part are usually driven by such external pressures such as decreasing support from the legislature and increasing calls for public accountability.

If there is a perceived need to increase productivity, what strategies are being considered by academic and business administrators of four year public institutions of higher education in Northern New Jersey to increase faculty productivity?

The strategies to increase faculty productivity basically follow the pressures listed above. Since there is decreasing support and more accountability, administrators are looking for ways to increase faculty productivity. Some administrators call for multi-year contracts to replace tenure. The faculty member would agree to certain productivity goals for the contract and be held accountable if those goals were not met. Other administrators call for post tenure review with accountability. The common complaint now is that while there is a form of post tenure review, it is almost pro forma and does not usually result in any changes where changes are necessary. True post tenure review must also include accountability. As with the multi-year contracts, tenured faculty members must agree to some goals and be held accountable if those goals are not met. The goals must support the mission and vision of the institution.

Other strategies cited focus on teaching and engaging students. A majority of the administrators cited the need to improve teaching either through technology or just mentoring of faculty by other faculty as means of increasing faculty productivity. "...teachers who lecture, albeit in a most impressive and stimulating manner, are still practicing active learning only for themselves; students tend to receive their words mostly passively. The traditional lecture tend to keep both faculty and students in bondage to a model of education that will serve neither particularly well in the future." (Meyer, 1998, p. 54)

Administrators are aware that some of the performance indicators that will be used by the state for funding will probably deal with student retention and outcomes. Therefore, the strategies to increase faculty productivity must be linked with these expected outcome performance indicators. So strategies that will increase student retention and student outcomes are being given the highest priority. "In the past, faculty assumed that they knew students' needs and objectives better than the students themselves. While 'there is truth in this premise' it is 'not enough for faculty to ignore students' own definition of need'." (p. 63)

#### Recommendations to Public Institutions of Higher Education in New Jersey

Educators must educate. Educators must educate the public concerning what faculty productivity actually entails. As was stated in the literature, this concept has been accepted by some faculty members considering the joint statement of the Faculty senate and union leadership of the State University of New York and the California State University. Also, educators must educate the

public concerning the public benefits of a college degree. Finally educators must educate one another about what they are doing and how it helps further the mission and vision of the institution. One administrator compared the academy with the church. Both have cloistered members that practice largely in secret with strange customs and symbols. Both strive to keep the process secret. Public higher education must break out of this mold if it is to survive in the present financial environment.

In order to educate the public concerning faculty work and productivity, the faculty and administration must agree on the end product of their work. Business people will tell you that before you can explain the process you must know what your end product is going to be. Post-secondary education has failed to clearly delineate exactly what product they are producing. Since there is no agreement on the end product, there is no clear agreement on how to get to the end product. Internal and external constituencies will "need to answer questions about fundamental purpose, including what should be delivered and to whom, as well as institutions' contributions to stability, change, economic benefits, and social issues." (Meyer, 1998, p. 67) Once the end product is decided, the pathway to that product will be clearer. This will make it easier for the educators to educate the public as to exactly what they do and how it benefits the public.

According to the respondents, more and more the public is looking at a college degree as a private benefit rather than a public benefit. Educators of public institutions of higher education who wish to continue to receive public funding must strive to educate the public that a graduate serves and helps the

public at large. While a degree does hold some definite private benefits, the public also benefits from these graduates. Public colleges should strive to show that the public benefits when a graduate serves on a local committee, runs for local office, does some form of community service, or just helps the local economy by starting a business. To achieve public acceptance of the public good of the college degree, one of the outcomes must be making sure graduates are effective workers and informed citizens.

Throughout the interviews, there were many jokes about faculty productivity being an oxymoron. This joking would be fine if it stayed within the academy. "...the public press produced a number of scathing books about higher education and, in particular, a greedy and lazy professoriat." (Meyer, 1998, p. 38) These books have clouded the minds of the public and it is the responsibility of the educators to disprove these misconceptions. To do this, administrators and faculty must "walk the walk and talk the talk". This is accomplished by taking every opportunity to bolster the impression that the faculty are productive. This should be practiced internally to perfect what is said externally.

Information collection must be a shared decision and the results then disseminated widely. One administrator lamented that he could not get a majority of the faculty to fill in the productivity forms distributed annually. This situation could be corrected if the faculty understood the need for this information. It is vital for administration to share with the faculty the reason the information is being collected. But it is also necessary for administrators to

realize that if information is just being collected because it always has been collected, the faculty will not be able to see the importance of it. By collecting only what is necessary, and then sharing the reason with the faculty, the flow of information should be easier. Likewise, once the information is collected, it should be shared with everyone. One of the interesting aspects of the interviews was that information at institutions seemed compartmentalized. The information would be collected and then very little was shared.

**Reward your mission.** Most of the administrators agreed that the primary mission of their institution is teaching. The literature in the section of Chapter Two entitled "Uses of Workload Data and Productivity Measurements" supports this statement. The HERI surveys indicated that the faculty saw this when teaching rather than research was listed most often as a very important goal in higher education. However, I feel from the tone of the interviews, the actual mission of these institutions is learning. Teaching actually focuses on the faculty while learning focuses on the needs of the student. Johnstone (1993) in his paper "Learning Productivity: A New Imperative for American Higher Education" stated:

When the object of critical inquiry is learning and learners, rather than teaching and teachers, an enormous potential opens for increasing learning through reducing the student's time spent on activities other than learning, lessening the aimless drift of students through prolonged undergraduate years, and challenging each student up to his or her learning potential. (Johnstone, 1993, Online)

If the universities want to support their primary mission of learning and decrease spending, alternative forms of learning must be examined. One respondent



described such a situation using technology and others described this philosophy with alternative scheduling and flexible hours. While time-shorten degrees are not a new idea, most of the past experiences according to Johnstone failed because parents and students were not interested in the concept. Now with increased calls for increase productivity, it is incumbent upon higher education to explore year-round calendars and three-year baccalaureates as methods to decrease costs.

Many of the administrators interviewed stressed learning indirectly with their answers concerning students' needs. It is necessary for the colleges and universities to reward the faculty based upon this mission and not for some other artificial aspect of faculty life. One administrator cited that since most of the faculty had to perform as a researcher to become a faculty member, this focus rewards the researcher but not necessarily the teacher. It is incumbent upon the institutions to be sure that their reward structure matches their mission. According to the literature, there is a mismatch between the mission of the universities and the public perception of their primary duty. Promotion and tenure policies should stress teaching and learning if that is the primary mission of the institution. Most promotion and tenure policies reward research even in institutions that consider themselves teaching institutions.

#### Recommendations for Further Research

The sample of this study was single campus, public, nonspecialized four year institutions of higher education in Northern New Jersey. It provided a detailed study of a small aspect of higher education in New Jersey. Future

researchers should consider broadening this sample to include all institutions of higher education in New Jersey. While this study focused only on the public arena, future research could include private institutions and then be able to draw comparisons between these two types of higher education. This study focuses on single campus nonspecialized four year institutions of higher education. By broadening the study to multiple campuses and specialized institutions of higher education it would be possible to achieve a greater balance of research institutions whose ideas of faculty productivity are probably different than the sample used in this study.

This study only utilized administrators' perceptions of faculty productivity. Future researchers should consider including faculty perceptions of faculty productivity in the study as well. A future study might be an in-depth case study of one institution and interviews of both administrators and faculty to compare and contrast the perceptions of the two groups. This process would allow the researcher to see how the perceptions of the different groups match and help the researcher make suggestions for improving the perceptions.

This study was strictly a qualitative study. While it produced a wealth of information, it is subjective information rather than objective. Future researchers should consider utilizing both quantitative and qualitative studies simultaneously. This would allow the researcher to be able to draw conclusions between both types of studies and may help with the interpretation of the qualitative information.

The interviews for this study included fifteen questions which took an average of thirty-eight minutes to conduct. While the quality of the interviews were excellent, the answers to the final questions were not as detailed or in-depth as the answers to the initial questions. Future researchers utilizing this study should consider reducing the number of questions to ten questions or less or construct the questionnaire to limit the interview time to less than thirty minutes. While the interview is preferable to sending a qualitative questionnaire, the time and effort is prohibitive if the sample size exceeds fifty participants. Future researchers should consider this if the study is broadened to include more institutions or to include faculty as well as administrators.

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APPENDIX A  
Interview Questions

### Interview Questions

1. Based on your education and experience for the position you currently hold , what do you consider your training to have been?
2. What do you think about when I say faculty productivity?
3. Describe the characteristics or traits of your view of an ideally productive faculty.
4. What kind of productivity data is routinely compiled on an institution-wide basis?
5. Describe how and by whom these data are routinely used?
6. What productivity data do you believe should be collected?
7. What are your perceptions of the fiscal outlook for higher education at the present time?
8. What are your perceptions of the fiscal outlook for higher education in the next three to five years?
9. What impact, if any, will the fiscal outlook for higher education now and during the next three to five years, have on faculty productivity?
10. What pressures if any, either internal or external, are influencing the need to change faculty productivity?
11. Are there any differences or similarities between your perceptions of faculty productivity and the external perception of faculty productivity?
12. What strategies has your institution developed and or implemented to address current faculty productivity?



13. What strategies has your institution developed and or implemented to address faculty productivity in the future?
14. Is there any change or contemplated change in the mix of full time versus adjunct faculty?
15. Do you have anything else you would like to add to this discussion?

APPENDIX B  
Demographic Questionnaire

Demographic Questionnaire

Institution:            A            B            C            D            E

Respondent Number: \_\_\_\_\_

Interview Date: \_\_\_\_\_

Time Started: \_\_\_\_\_ Time Ended: \_\_\_\_\_

Gender:    Male: \_\_\_    Female: \_\_\_

Number of years working in Higher Education (include this year): \_\_\_\_\_

Number of years (in total) employed in professional work outside higher  
education: \_\_\_\_\_

Current Post: \_\_\_\_\_

Number of Years at Current Post (include this year): \_\_\_\_\_

List:All Earned Degrees Received (including any degree currently working on)	Discipline of Degree	Year
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____

Do you hold an academic appointment? Yes            No

If yes, what rank do you hold? \_\_\_\_\_

Number of years at present rank? \_\_\_\_\_

List: Last Five Institutions of Higher Education employed (start with current position)	Position	Type of Institution*	Years Employed
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____

\*Use Classification below (Taken from Glassick, Huber and Maeroff. Scholarship Assessed 1997)

- RU-I Research University I: These institutions offer a full range of baccalaureate programs, are committed to graduate education through the doctorate degree, and give high priority to research. They receive annually at least \$33.5 million in federal support and award at least fifty Ph.D. degrees each year.
- RU-II Research University II: These institutions offer a full range of baccalaureate programs, are committed to graduate education through the doctorate degree, and give high priority to research. They receive annually at least \$12.5 million in federal support and award at least fifty Ph.D. degrees each year.
- DG-I Doctorate-Granting Universities I: In addition to offering a full range of baccalaureate programs, the mission of these institutions includes a commitment to graduate education through the doctorate degrees. They award at least forty Ph.D. degrees annually in five or more academic disciplines.
- DG-II Doctorate-Granting Universities II: In addition to offering a full range of baccalaureate programs, the mission of these institutions includes a commitment to graduate education through the doctorate degrees. They award annually twenty or more Ph.D. degrees in at least one discipline or ten or more Ph.D. degrees in three or more disciplines.
- CU-I Comprehensive Universities and Colleges I: These institutions offer baccalaureate programs and, with few exceptions, graduate education through the master's degree. More than half of their baccalaureate degrees are awarded in two or more occupational or professional disciplines such as engineering or business administration. All of the institutions in this group enroll at least twenty-five hundred students.
- CU-II Comprehensive Universities and Colleges II: These institutions award more than half of their baccalaureate degrees in two or more occupational or professional disciplines, such as engineering or business administration, and many also offer graduate education through the master's degree. All of the institutions in this group enroll between fifteen hundred and twenty-five hundred students.
- LA-I Liberal Arts Colleges I: These highly selective institutions are primarily undergraduate colleges that award more than half of their baccalaureate degrees in arts and science fields.
- LA-II Liberal Arts Colleges II: These institutions are primarily undergraduate colleges that are less selective and award more than half of their degrees in liberal arts fields. This category also includes a group of colleges that award less than half of their degrees in liberal arts fields, but fewer than fifteen hundred students, are too small to be considered comprehensive.
- CC Two-Year Community, Junior, and technical Colleges: These institutions offer certificate or degree programs through the associate or arts level and, with few exceptions, offer no baccalaureate degrees.
- PS Professional Schools and Other Specialized Institutions: These institutions offer degrees ranging from bachelor's to doctorate. At least 50 percent of the degrees awarded by these institutions are in a single specialized field. Specialized institutions include: Theological seminaries, Bible colleges, and other institutions offering degrees in religion; medical schools and medical centers; other separate health profession schools; schools of law; schools of engineering and technology; schools of business and management; schools of art, music, and design; teachers colleges; other specialized institutions; and corporate-sponsored institutions.

APPENDIX C  
Informed Consent

Informed Consent Form for the Standardized Open-Ended Interview  
of Administrators of Public Institutions of Higher Education  
in Northern New Jersey  
on the Perceptions of Faculty Productivity

2 Village Green Court  
South Orange, NJ 07079  
(973) 378-8161

(Date)

Dear Administrator,

I am a doctoral student in the College of Education and Human Services at Seton Hall University, working under the mentorship of Joseph Stetar, Ph.D. My doctoral dissertation research addresses the perceptions of administrators of faculty productivity at four year public institutions of higher education in northern New Jersey. The President of your institution has approved my request to conduct research within this institution.

The topic of my research deals with administrators perceptions of faculty productivity and how the fiscal environment affects the perceptions of faculty productivity. In the research, I will ask for about sixty minutes of your time to participate in an oral interview which with your permission will be tape recorded.

Your participation is completely voluntary and you may discontinue participation at any time. Please be assured that should you decide not to participate, your anonymity will be protected.

Data provided by the participants will be handled with strictest confidentiality. The categorization of academic or business administrator will be included and no individuals will be identified. Responses of all respondents will be combined in the presentation of the data. While excerpts of the interview may be used in the narrative, the anonymity of the individual will be maintained. The institution will not be identified in the analysis of the data.

This project has been reviewed and approved by the Seton Hall University Institutional Review Board for Human Subjects Research. The IRB believes that the research procedures adequately safeguard the subject's privacy, welfare, civil liberties, and right. The Chairperson of the IRB may be reached through the Office of Grants and Research Services. The telephone number of the office is (973) 378-9806.

Upon your request, I will gladly provide you with the aggregated results of the completed study. I am available to address any questions you may have about the research or your rights as a research subject.

Thank you for your time and consideration of this matter.

Sincerely,

William F. Clark

I have read the material above, and any questions I asked have been answered to my satisfaction. I agree to participate in this activity, realizing that I may withdraw without prejudice at any time.

Participant	Date

\_\_\_\_\_ I would like to receive a copy of the aggregated results upon completion of this study. Please forward the results to:

Address: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

APPENDIX D

Letter to the Institution President



Letter to the Institution President

2 Village Green Court  
South Orange, NJ 07079  
(973) 378-8161

(Date)

President of (Name of Institution)  
Address

Dear (President by name)

This is a request to seek your assistance with my doctoral dissertation research in the College of Education and Human Services at Seton Hall University, working under the mentorship of Joseph Stetar, Ph.D. My doctoral dissertation research addresses the perceptions of administrators of faculty productivity at four year public institutions of higher education in northern New Jersey.

This is a qualitative research project requiring personal interviews with the administrators from your institution and the completion of a demographic questionnaire. These interviews will take approximately sixty minutes. These interviews will be of a confidential nature in order to guarantee anonymity and the participants will have the opportunity to withdraw from this study at any time. Participation is completely voluntary. Data provided by the participants will be handled with confidentiality as no individual will be identified in this study. Other than the categorization of academic or business administrator no other identifying information regarding the respondents or the institution will be included in this study. Responses of all respondents will be combined in the presentation of the data.

Results of this study will be used to evaluate the perceptions of administrators of faculty productivity and how current and future fiscal outlook affect faculty productivity.

May I please have permission to contact the administrators in your institution to participate in this study. I will telephone you shortly to determine if you are in agreement with my performing this research project in your institution and to ask for a roster of your administrators. Do not hesitate to contact me to discuss this further if you have any questions. Thank you for your time and understanding.

Sincerely,

William F. Clark