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A STUDY OF CHEIF FINANCIAL OFFICERS AT LARGE, FOUR-YEAR PUBLIC COLLEGES AND UNIVERSITIES: PERCEPTIONS OF ROLE, RESPONSIBILITIES, AND RELATIONSHIPS

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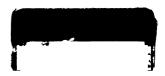
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A STUDY OF CHIEF FINANCIAL OFFICERS AT LARGE, FOUR-YEAR PUBLIC COLLEGES AND UNIVERSITIES: PERCEPTIONS OF ROLE, RESPONSIBILITIES, AND RELATIONSHIPS

by

Barbara Hiemstra Ringquist

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ABSTRACT

A STUDY OF CHIEF FINANCIAL OFFICERS AT LARGE, FOUR-YEAR PUBLIC COLLEGES AND UNIVERSITIES: PERCEPTIONS OF ROLE, RESPONSIBILITIES, AND RELATIONSHIPS

By

Barbara Hiemstra Ringquist

The study was designed to enlarge the existing profile of the CFO at large, four-year public colleges and universities where previous CFO research was limited to CFO self report; this study also included the chief executive officers and the chief academic officers. A mail questionnaire was used.

Part I attempted to verify CFO responsibility for job functions reported in the literature, and investigated their institutional importance. The intent was to establish which functions were viewed by all three respondent types as CFO responsibilities and which were perceived as highly or critically important.

Part II focused on broader CFO responsibilities and explored levels of CFO organizational involvement and influence. Information about CFO formal organization rank, relationship to the controlling board, involvement in executive decision-making activities, impact on formulation and implementation of policy in other divisions, and involvement in external relations was gathered.

Major/complete CFO responsibility for accountancy, finance (except budget development) and general services functions was indicated by a majority or most of the respondents who also indicated minor/no CFO responsibility for business services (except bookstore) functions. The CFO was perceived to have major/complete responsibility for administration

functions nonacademic labor relations, nonacademic personnel administration, and risk management/insurance but minor/no responsibility for institutional research, academic labor relations, and legal management functions. The CFO was clearly perceived to have minor/no responsibility for academic data processing, while most respondents indicated major/complete responsibility for nonacademic data processing.

CFO rank was viewed as lower than CAO rank, but only the presidents and CAOs indicated CFO rank equal to the rank of other vice presidents; CAOs indicated higher. CFO board involvement was perceived as less than that of the presidents, equal to the provosts, and more than that of other vice presidents. CFO influence on the major decision-making council was viewed as high/very high by the presidents and CFOs and moderate by the CAOs. CFO involvement in development and implementation of academic and student services policy was reported as low/none. CFOs appear to be only seldomly or moderately involved in external relations activities.

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DEDICATION

To Josephine and Shirley

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cluded the large public institutions along with small public, large and small private, community and technical colleges, and medical schools among their various sample populations. Again, these studies tend to address the identification of financial officer routine assignments and educational and career backgrounds, with a limited exploration of financial officer organizational relationships.

The NACUBO, National Association of College and University Business Officers, statement on business administration in higher education implies that business officers should not only possess strong technical skills, but that they should also possess the ability to assume large responsibilities and retain a professional viewpoint:

As an administrator, the chief business officer should have both the strengths of the executive and the capacity to work comfortably and effectively as a counselor to the governing board and to the chief executive officer...be not merely a compiler but an interpreter of data and financial informa-Because a principal contribution to the institution will be in helping to determine how resources are used to achieve primary goals, the officer should be a person who not only comprehends academic objectives but appreciates them as personal goals...be an effective communicator in the administrative councils of the institution, in relationships with the faculty and other members of the academic community, and with those who compose the staff of the business organization...be sensitive to questions of human and public relations...be able to represent the institution before any audience interested in its mission, goals, achievements, or courses of action...a person who, working within the framework of the institution's policies and objectives, seeks constantly to help the institution make the most of its resources, and in both campus and community relationships is an example of dedicated service ...business officers of this caliber have influence beyond the limits of their institutional roles and, in their professional relationships, influence the development of higher education itself (CUBA, 1:1, p.6, 1982).

Discussion of these broader responsibilities tend to be speculative rather than based upon actual research findings. There exists a need to expand the limited chief financial officer profile by ascertaining busi-

ness officers' levels of involvement with the functional job areas as identified in the literature, by examining the importance of the responsibilities to the institution, and also by exploring and verifying those broader, less position-specific responsibilities described in the above excerpt taken from NACUBO'S 1975-1983 College and University Business Administration manual, to which many chief business officers refer for technical guidance in many of the specific job function areas ("The earlier volumes that established the title not only have been used for years by colleges and universities as their own basic references in the field of management, but are cited in the codes and regulations of many states as proper authority for the design of financial accounting and reporting systems of academic institutions") (CUBA, 1983: vii).

The Study

The study attempted to enlarge the existing profile of the CFO at large, public institutions of higher education. In addition to the verification of chief financial officer functional area responsibilities as reported in the literature, perceptions on the importance of the assigned functions were investigated. Functional area responsibilities most and least often personally attended to by the chief financial officers were identified, and a frequency ranking of financial officer weekly contacts was obtained. Chief financial officer involvement in institutional relations, board relations, legislative relations, and public relations was also explored. A mailed questionnaire was identified as the vehicle for data collection. Samples of the cover letters and questionnaires are located in Appendices A, B, and C respectively.

Part One of the chief executive, academic, and financial officer

questionnaires addressed various position-specific job function areas identified throughout the literature. Only Jenkins has studied these functions at the large, public four-year college and university level. His study did not, however, include the perceptions of the chief executive and chief academic officers.

The list of functional areas used in this study was developed from readings about the business officer position in higher education and incorporates the functions identified in earlier studies at the community college level (Calver, 1985 and Whims, 1974); at large, four-year public colleges and universities (Jenkins, 1978, 1983); and, at other types of institutions of higher education (CUBA, 1975-83). The list represents a unique synthesis of the findings of previous research; a directory of terms is presented in Appendix F. The respondents were asked their perceptions of the extent to which responsibilities are assigned to the business officer at their institution, and also how important they thought those responsibilities are to the institution. The financial officer questionnaire contains additional sections which attempt to discover the areas in which the chief financial officers perceive themselves to be most and least personally involved in the identified job functions.

Part Two of the chief executive, academic, and financial officer questionnaires examined several broader chief business officer responsibilities. The categories are institutional, board, legislative, and public relations (CUBA: 1:1, p.3, 1982; Lawrence and Robertson in Campbell, p. 10, 1985; Wallenfeldt, p.111-112, 1983; and Whims, 1974). The respondents were also asked to indicate number of years served.

This section of the questionnaire attempted to obtain some feeling for the level of organizational involvement and influence which chief fin-

ancial officers have, as a group in large, four-year public institutions of higher education. In <u>Power In and Around Organizations</u>, Henry Mintzberg discusses a theory of organization power built upon the premise that organizational behavior (especially decision-making, goal setting and strategy development) is

...a power game in which various players, called influencers, seek to control the organization's decisions and actions. The organization first comes into being when an initial group of influencers join together to pursue a common mission...Since the needs of influencers vary, each tries to use his or her own levers of power, means or systems of influence, to control decisions and actions. How they succeed determines what configuration of organizational power emerges. Thus, to understand the behavior of the organization it is necessary to understand which influencers are present, what needs each seeks to fulfill in the organization, and how each is able to exercise power to fulfill them (Mintzberg, p. 22, 1983).

Mintzberg asks how power is operationalized—how the needs of individual actors are linked to organizational actions. Those actors who choose to stay with the organization use their voice, or influence, in shaping it provided they possess "...(1) some source or basis of power coupled with (2) the expenditure of energy in (3) a politically skilful way when necessary." The basis of power comes from control of a critical resource, technical skill, or body of knowledge, or from legal prerogatives, or from access to those who possess these attributes. He stresses that although much more than power and influence determine what an organization does, they certainly do matter (1983: 20-24).

Mintzberg describes the flow of power from the external coalition (board) to the internal coalition (chief executive officer) as power passage and the actions the organization takes (decisions made) as the power game. The game begins as soon as the chief executive officer delegates any of his or her formal power and problems of control arise. The need

to control the behavior of the managers to whom s/he has delegated formal power involves getting them to suspend their own needs and function on behalf of the external coalition the chief executive officer represents. The chief executive officer is the single most important influencer in the organization and uses the organization's systems of authority, ideology, and politics to orient the organization toward his/her goals.

The remaining players, conversely, use weaknesses in these systems to alter the shape of these goals. A few examples would be to use, or create if not existing, direct links to external influencers to displace or change existing goals; to control an area of operation critical to the organization; and, to have or build access to and influence upon other players important to the operation of the organization--external, personal, and internal influence bases. This study investigates the location of the financial officer position within the formal hierarchy and attempts to verify previously identified financial officer job functions. Financial officer contact and influence with both internal and external coalitions of the organization will be addressed through questionnaire items regarding both chief financial officer influence and involvement in institutional, board, legislative, and public relations.

Cohen and March, in <u>Leadership and Ambiguity: the American College President</u>, mention several reasons why we might expect board members and business officers to have similar view of the presidency. They assert that the "relative closeness of business officers to boards" was borne out by their interview data which included a number of business officers who wanted to emphasize in their interviews "the care they took not to let their official and relatively frequent informal contact with the board members undermine the president's position." (Cohen and March, 1974: 74).

The issue of chief financial officer board relations in large, public four-year colleges and universities is addressed in Part Two of the questionnaires.

Only the chief financial officer questionnaire contained Parts Three and Four. Part Three sought information about the institutions's enrollment and budget, and Part Four requested a rank ordering of weekly financial officer campus contacts for the purpose of gaining a picture of CBO/CFO frequency of association with presidents, board members, executive officers, and other campus individuals.

<u>Limitations and Assumptions of the Study</u>

The study was limited to the responding chief executive, chief academic, and chief financial officers' perceptions of the items included in the questionnaire. The study was also limited to large, four-year public institutions of higher educations—those public, four-year colleges and universities with a student headcount population of 10,000 or more as reported in the 1988 Higher Education Directory.

The three survey populations consist of the chief executive, chief academic, and chief financial officers at all four-year public colleges and universities with reported headcount enrollment of 10,000 or more. One hundred and ninety institutions were selected on this basis (see Appendix G for the list of institutions included in the survey).

Data were used for group profile purposes only, and individual responses were held in strict confidentiality. Data were uniformly coded and stored in computer format for use in statistical and descriptive analyses. Data were analyzed using SPSS* software. The specific questions addressed by the study are presented fully in Chapter Three.

The first part of the study explored Mintzberg's three prime bases of power which are "control of a resource, control of a technical skill, or control of a body of knowledge, any one critical to the organization" by assessing the perceived CFO responsibility level and the perceived importance of a number of job functions (1983: p. 24). More specifically, the investigation attempted to verify, with the additional perceptions of the executive and academic officers, those job functions previously identified in the literature on large public four-year institutions by the self-report of the CFOs, and also to establish where there is agreement on which of the job functions are concentrated solely (nonsubstitutably) with the CFO. The importance, or criticalness, of the job functions to the organization as perceived by the three groups of university officers was also investigated to identify which job functions were considered to be essential to the institution.

Another basis of power identified by Mintzberg is derived simply from access to those who can rely on the above three sources of influence. The second part of the study explored this concept by examining CFO board of control, internal (institutional), and external (legislative and public) relations.

Summary

In the interest of increasing our knowledge of the chief financial officer as a practicing administrator of higher education, this study was used as a vehicle for exploring both the assigned, position-specific as well as the broader institutional, board, legislative, and external relations responsibilities of CBO/CFOs. The study further examined interactions between the chief financial officer and other institutional players.

The three groups surveyed for comparison purposes were the chief executive, the chief academic, and the chief financial officers at large, four-year public institutions of higher education. This comparison of the three respondent groups extends the literature on CBO/CFO job functions at large, public colleges and universities beyond the self-report level, while the comparison of the three groups to the areas of financial officer institutional, board, legislative, and public relations is unique to the literature developed thus far on the financial officer position at large, public institutions of higher education.

The literature on the chief financial officer position in higher education is reviewed in the following chapter, while subsequent chapters present the study in greater detail. The design of the study, research questions developed from the review of the literature, testable hypotheses, survey administration procedures, and a discussion of the methodology used in analyzing the collected data are presented in the third chapter. The fourth chapter consists of a summarization of the analyses, while the fifth chapter consists of a summarization of the findings of the study and a presentation of conclusions, implications, and recommendations.

CHAPTER TWO

REVIEW OF THE LITERATURE

The purpose of this chapter is to present the results of a review of the literature which addresses the role, responsibilities, and relationships of the chief financial officer in institutions of higher education. Many of the studies of the chief financial officer in higher education concentrated on the community college level, while other studies explored the financial officer position at a combination of types of instituations of higher education. The research on the chief financial officer in large, four-year pubic colleges and universities is limited. This review is presented in three sections: (1) college financial officer assigned job functions and responsibilities; (2) college financial officer relationships to presidents, other executive officers, and the governing boards; and, (3) college financial officer role and background.

Job Functions and Responsibilities of Chief Financial Officers

In his studies, Jenkins gathered information about the role and functions of chief financial officers. He selected the following twenty-three major areas of chief financial officer responsibilities from the literature and asked his respondents to describe the scope of each responsibility, identified on a five-point scale, as either "no-minor-shared-major-complete." The chief financial officers responding to his 1983

Chief Financial Officer Responsibilities

Accounting
Auxiliary Operations
Budget Preparation and Control
Bursar
Data Processing Operations
Facility Planning and Construction
Fund Raising
Grant and Contract Administration
Indirect Cost Rate Establishment
Institutional Research
Internal Control
Investment Management
Legal Management

Methods Coordination
Non-Academic Personnel
Administration
Payroll
Physical Plant
Purchasing
Risk Management and
Insurance
Safety
Security
Staff Benefits
Student Financial
Assistance

study of the CFO position at large, four-year public institutions reported complete responsibility for the accounting, budgeting, bursar, indirect cost rate determination, internal control, investment management, payroll, physical plant, purchasing, and the risk management and insurance areas. They reported at least major responsibility for auxiliary enterprises, safety, security, nonacademic personnel administration, staff benefits, and facilities planning. Jenkins found methods coordination and grants and contract administration to be shared responsibility areas while financial assistance, fund raising, and institutional research were listed as minor or not job responsibilities. Data processing and legal manageent were not classified in any of the designated categories (1985, p. 28).

Robbins and Nance (1982) compared nineteen chief business officer responsibilities by type, control (public or private) and size of institution. They identified some variation for all three factors but found the greatest variation to be by type of institution, e.g., university business officers were responsible for more functions (82 percent) than were community college chief business officers (69 percent), and the business officers were more apt to have responsibility for data processing at universities than at liberal arts colleges (70 versus 38 percent).

Hungerman (1984) asked small college business officers to indicate their scope of responsibility for twenty-five position-related areas. Accounting, budgeting, contract administration, insurance, internal control, investment management, non-academic personnel administration, payroll, physical plant, purchasing, staff benefits, student billing, loan collection, bookstore, and food services were reported by at least two thirds of the respondents as both actual and recommended major or complete responsibility area assignments. The reported responses for actual and recommended responsibility at the "major" or "complete" level for administrative data processing were about 60 and 69 percent respectively, about 58 and 66 percent for legal management, and about 59 and 61 percent for security, whereas actual and recommended responses for the student financial aid function were about 32 percent and 40 percent respectively. The academic data processing, faculty planning, student registration, fund raising, and teaching functions were reported below the one third response rate for both actual or recommended responsibilities at the "major" or the "complete" level (p. 52-67).

Hungerman also asked his respondents to indicate the present and current major issues of concern. The responding business officers indicated shared, major, or complete responsibility for nine of the current issues listed by Hungerman: non-academic cost savings programs, production of additional income through conversion of facilities, deferred maintenance, energy costs savings programs, affirmative action, occupational safety and health regulations, compliance with the Fair Labor Standards Act, long range planning, and funding of deficits, if any.

The business officers were also asked to identify and rank any additional issues which they perceived as current major concerns. About 55

percent reported enrollment decline; about one third cited financial aid to students, deferred maintenance, and inflation; and, from 9 to 19 percent mentioned price structure, employee compensation, fund raising, endowment, and government support (p. 37-42).

Using the four categories of finance and accounting, supervisory, administrative and teaching, Javidpour concluded that "the primary important duties and functions of business officers were: planning, budgeting, accounting, internal control investment, legal management, purchasing, student financial assistance collections and disbursement of funds, financial reporting, maintaining physical plant, supervisory of non-auxiliary enterprises, payroll, and selecting staff" (p. 113).

Setoodeh used financial and accounting, materials management, auxiliary enterprises, management of the institution's financial organization, fund raising and public relations, planning and controlling institutional operations, administration of funds, acquisition of funds, and consultation as identified responsibility areas in his study. He found close agreement between the presidents and chief business officers except in the area of the development of financial policies, where the chief financial officers indicated "that they are and that they should be responsible for formulation of new financial policies"; a statistically significant number of the presidents did not share that view (p. 114). Setoodah identified the primary goals for chief financial officers as strengthening the financial structure of the institution and ensuring the most effective use of available resources (p. 113).

The National Association of College and University Business Officers (NACUBO) handbook divides twenty-seven chief financial officer responsibilities into administrative management, business management, fiscal man-

agement, and financial accounting and reporting categories. A separate section of the two volume NACUBO handbook and of Weizenbach's book (published by NACUBO, edited by Wizenbach) are dedicated to overview and discussion of each identified responsibility area. The four categories are summarized below.

Administrative Management

Institutional Planning
Space Management
Management Information Systems
Records Management
Risk Management and Insurance
Sponsored Programs
Legal Services
Student Financial Aid
Personnel Administration

Fiscal Management

Administration of Endowment and Similar Funds
Investment Management
Cash Management
Institutional Budgeting
Auditing
Cost Information Determination
Indirect Cost of Sponsored Programs

Business Management

Purchasing Goods and Services
Auxiliary Enterprises and Other
Services
Facilities Planning, Design, and
Construction
Facilities Operation and
Maintenance
Safety, Security and Law
Enforcement and Transportation

Financial Accounting & Reporting

Fundamental Concepts of Financial Accounting and Reporting Current Funds Loan, Endowment, Annuity, Life Income and Agency Funds Plant Funds Financial Reports (CUBA, 1982: iv-v)

Calver and Volger stated that chief business officer roles have expanded during the seventies and eighties and decided that, since the NACUBO, National Association of College and University Business Officers "upon which CBOs heavily rely for professional guidance," acknowledged these functions, they would use them in their study of community college business officers (1985, p. 38). These functions were explored through a "no-low-average-high" scale to discover which functions community college chief business officers considered most important. A "no-shared-delegated-direct" scale was used to ascertain the level of responsibility

community college business officers associated with each function. Fiscal and financial duties were viewed as being more important than other chief business officer functions.

Business officers in the Calver and Volger study most often personally performed the functions they ranked as most important, with budgeting identified as the most often personally performed and purchasing as the function most often delegated (p. 39-41). Endowments was the role function most often found by Calver and Volger as not a chief business officer responsibility whereas institutional planning was the function most often shared with other administrative areas. The functions considered least important by the responding community college business officers were usually shared or the business officer was not responsible for them (p. 39-40).

Keller studied a variety of insitutions and reported that past proliferation of CFO responsibilities has leveled off. She stated that,

There is a stable core of responsibilities for the job, which is virtually identical for CBOs in all types and sizes of institutions. This consists of the basic financial functions existing in virtually all institutions plus several other basic functions which have become, through common practice over the years, typical functions of the CBO. Beyond that core, responsibilities become quite variable (p. 76).

Where the functions existed at the institution, over 90 percent of all chief business officers responding to Keller's survey reported responsibility for accounting, budgeting, bursar, payroll, and purchasing activities. Between 74 and 84 percent of all respondents identified general services, auxiliary enterprises, facility planning and construction, and investment of endowment as responsibility areas. Fifty-eight to 64 percent also cited safety and security, internal audit, data processing. and grants administration/sponsored projects as responsibilities. Twenty to

49 percent of the responding chief business officers were responsible for labor relations (49 percent), legal services (45 percent), student financial aid (24 percent), and institutional research and planning (21 percent). Less than seven percent of the respondents were responsible for intercollegiate athletics, fund raising, and student activities, the remaining three functions listed by Keller (p. 40-43). This leveling of chief business officer functions reflects a long term shift from 1964 when, in his study of the duties, functions and professional status of state college business managers in New Jersey, Silver found that state college business managers were "largely responsible for all the major functions of the college except those which were instructional in nature."

Keller reported budgeting (70.3 percent), accounting (40.8 percent), and physical plant operations (39.7 percent) as the three most time consuming business officer activities, with personnel (27.6 percent) and facility planning (17.5 percent) the next most time consuming activities. The remaining functions were reported as time consuming by less than 13 percent of the respondents (p. 58-59). Keller also found that a majority of chief business officers in all respondent groups reported spending less than 20 percent of their time on external involvements (p. 60).

In response to Keller's request to identify the aspects of their job in which the most difficult problems were faced, 55.5 percent of all respondents in the study mentioned financial, 41.6 percent reported personnel and labor relations, and 44.6 percent identified management problems. More than one half of the chief business officers presented examples of task-oriented assignments as being the most satisfying parts of their job, while about 30 percent gave examples of most satisfying activities which fell into Keller's relationship-oriented, or working with others, cate-

gory, and about 13 percent gave examples which fit the reward-oriented category which included both tangible rewards such as salary and benefits and intangible rewards such as status and power (p. 68-72).

The 1974 Whims community college study grouped thirty-seven job functions into nine categories. While the survey results yielded at least a two-thirds concensus among and between the president and business officers on twenty-four functions as being primary CBO responsibilities.

<u>Planning</u>

/ Campus Planning
/ Information Planning
/ Long Range Planning
* Policy Formulation

Procurement

* Collection of Student Fees
/ Federal Relations
/ Fund Raising
/ Legislative
* Purchasing

Allocation

- * Budgeting
- * Collective Bargaining
 / Facilities Utilization
- * Payroll
- * Salary and Wage Determination

Property Maintenance

- * Inventory
- * Maintenance of Equipment
- * Maintenance of Facilities
- * Maintenance of Grounds

Fiscal Management

* Accounting

Administrative Services

/ Data Processing

* Food Service

Publication Services

- * Student Activity Fund Student Housing
- * Student Loan
- * Student Store/Bookstore
- * Transportation

Staff Maintenance

Faculty and Staff Housing
* Personnel Management

Resource Development

- / Endowment Fund Management
- * Investment Real Estate
- * Leadership

Protection

- * Auditing
- * Bonding
- * Insurance
- * Protection of persons/property

NOTE: An <u>asterisk</u> preceding a function indicates two-thirds concensus between and among the presidents and business officers. A <u>slash</u> preceding a function indicates that the presidents disagreed with the CBOs that the function was a chief business officer responsibility.

Whims noted, as did Setoodah, the perceived level of involvement of the business officers in the formulation of policy as "being a significant area of disagreement between the chief business officers and the presidents" (p. 45, 91).

Whims also found differences in opinion between the two groups on nine functions where over two thirds of the chief business officers indicated they performed the functions while the responding presidents failed to reach the two-thirds consensus level: (1) campus planning, (2) information systems, (3) long-range planning, (4) fund raising, (5) legislative, (6) federal relations, (7) facilities utilization, (8) data processing, and (9) endowment fund management. Publications services, student housing, faculty and staff housing, and real estate did not receive a two-thirds level response from either group. Those functions which received the highest level of agreement (90 percent) between and among both sets of respondents were the budgeting, payroll, salary and wage determination, collection of student fees, accounting, inventory, investment, auditing and insurance functions (p. 45-47).

Whims reported that size of the community college did not appear to be related to the number and type of functions performed. He did note, however, that the factor of college size did have some bearing on the amount of time spent supervising selected functions; the larger the college, the greater the time spent with policy formulation and leadership (p. 84, 86).

In addition to job functions and responsibilities, researchers of the chief financial officer position in higher education have explored several areas of chief financial officer relationships within the higher education setting.

Organizational Relationships of Chief Financial Officers

Jenkins stated that in all three of his studies, "the CFOs' most common relationship to the president is as one of three or four officers who with the president share major institutional concerns and make decisions on matters affecting university policies and programs". He found that the relationship of the chief financial officer to the governing board varied among institutions. At one end of the spectrum the most frequent financial officer contact with the board occurred when the president requested that special reports be prepared and presented. The second most commonly reported relationship, however, "found the CFO reporting directly to the governing board on business or financial matters and performing specified services as a responsible executive secretary or treasurer" (1985, p. 28).

Both the 1973 and 1978 data collected by Jenkins found a majority of responding chief financial officers indicated "that they were on the same organizational level as the chief academic officer and that the latter and the CFO were equally involved in most institutional decisions." (1978, p. 62). However, his 1983 data indicated that the chief academic officer "was at a higher organizational level than the CFO or was at least considered the major officer reporting to the president." (1985, p. 28). This finding is in line with the conclusion of others that the chief academic officers are second in command to the president.

Hungerman's 1984 study of small college business officers reported a majority (68.6 percent) of the respondents said that the president, business officer, and all the other chief officers formed a team. However, eighteen percent of the respondents reported that the president, the business officer, and the academic officer acted as a team. Sixty-

four percent of the business officers reported they were on the same organizational level as the academic officer and equally involved in most institutional decisions; no respondents indicated being on a higher level. The majority of responding business officers either did not report to the board or presented special board or presidential reports only when invited; none were voting members. Abut 80 percent of the respondents, however, attended all full board meetings and 84 percent attended all board finance subcommittee meetings while just 55 percent attended all executive committee meetings (p. 28-31).

Hungerman gathered data on key administrative positions actually reporting to the business officer and whether it was felt the position should report to the business officer. The majority of the respondents indicated the positions of comptroller, director of physical plant, and director of computer center should report to them whereas only the comptroller and director of physical plant actually did report to them. The business officers also identified several nonlisted administrative positions as reporting to them: director of student financial aid (11 percent), director of purchasing (9 percent), business manager (9 percent), head of communications (4 percent), bookstore manager (26 percent), food service director (28 percent), and security chief (13 percent) (p. 50-52, 106-107).

Approximately 60 percent of the respondents to Hungerman's survey served on their administration's budget/finance and planning committees while a good on third of them also served on the president's council and the administrative council. About 23 percent of the responding business officers served on the financial aid council, while only 13 percent served on the academic council (p. 31-34)

Setoodah reported that the level of administrative responsibility of the financial officer was "perceived to be equal to or greater than that of the chief academic officer and greater than the chief student officer, athletics director, director of institutional research, director of university relations, or assistant to the president" by both the presidents and financial officers (p. 114). He further reported that the chief financial officer had more contact with the president and various governing bodies than did other senior administrators, and identified the following positions as commonly subordinate to the chief financial officer: comptroller, director of personnel, director of physical plant, and director of auxiliary enterprises (p.114-115).

Setoodah summarized his data as establishing that, although the president is the most influential person in shaping the institution's financial policy, the chief financial officer has greater influence on key financial decisions than is generally believed; that the position appears to be more important than other similar administrative positions in the administration of higher education institutions; and, that the position has gained more prestige and importance due to the recent problems in financing (p. 116-117).

Calver found a significant relationship between total number of a chief business officers' subordinates and institutional size and reported that most respondents to his study of chief business officers at community colleges "work directly with the president and are assigned substantial supervisory responsibilities and, in general, the larger the institution, the more subordinates" (1984, pp. iii, 129).

In his 1974 research on Michigan community colleges, Whims attempted to determine the organizational relationships of the business officer as

they related to locus of power, organizational rank, circle of influence, and organizational relationships. He found several differences between president and chief business officer perceptions of organizational relationships. He reported that "a much higher percentage of chief business officers responded that they should hold faculty rank and have a higher organizational status than the chief academic officer" than did the presidents. However, he also noted that a majority of each group indicated "that the CBO should hold a staff position in the organization" (p.88).

Whims found the community college business officers and presidents in basic agreement that the business officer should be a member of administrative councils; provide direct assistance in the development, evaluation, and control of operations; report directly to the president; be a member of standing and special committees; and, be a consultant to those officers responsible for obtaining financial support (p. 87). The business officers' major weekly contacts were identified in order of frequency as being the president, accountant, controller, physical plant director, student affairs dean, and academic officer (p. 90).

Campbell, when speaking of the community college business officer, stated that "the chief business officer's or CBO's role has become increasingly important as trustees look to their managerial ability to meet the "bottom line" of any necessary budget cuts" (1985, p. 1). He views the chief business officer role as changing from that of a principally budget comptroller to that of an equal partner in an entrepreneurial team. Campbell speaks to the current battle cry of "leadership" and its underlying assumption that strategic management and vision will help create alternatives and ease the way to preferred rather than uncertain futures

(p. 1-3).

Chaffee asked whether budgets implement the important values of the institution and endorsed the integration of academic planning and budgeting. She found that successful schools were led by persons who tried to build reality based upon their shared perceptions of what the institution ought to be. She identified professionalizing the management team as one of the successful strategies in turning around declining colleges. Peck believes the shift in leadership style necessitates an accompanying shift in the role of the chief business officer to become part of the entrepreneurial team.

Campbell viewed the technological, identity, economic, and competition crises as forcing college leaders to develop new competencies and adaptive strategies. Campbell promotes supporting the changing role of top management through provision of "professional development institutes in team building, conflict resolution, goal setting and so on for the entire top administrative or management council of an institution" (1985, p. 112). He also calls for additional research on the changing structure, function, and roles of the college top management team and its business officers (p. 111-115).

LeCroy examined the relationship between college business officers and college academic officers in an attempt to encourage a full educational partnership between the academic and business division. He encouraged better utilization of the skills of the business officers at our colleges and described their multifaceted talents as follows.

With the skill of a gourmet cook, they combine state and local funds, federal monies, private funds, bequests, and grants into a grand dinner that is not just palatable but nourishing to our institutions and our students. These are talents that have been invested well. (p. 37)

LeCroy then identified other, less conspicuous talents which he thought were too often buried: (1) chief business officers are more nearly in touch with trends that significantly affect the educational process, (2) chief business officers need to share their ability to plan in varied ways to meet tomorrow's goals, and (3) chief business officers understand the meaning of productivity, ways that efficiency can stimulate growth (p. 37-38). LeCroy discussed the stereotypic business-versus-academic polarities which often perpetuate competitive rather than joint problem solving behaviors. He asserts that "we-they" images do exist and do increase polarization within our institutions. His example of the way academic officers might be stereotyped by business professionals follows.

Academics are absentminded. They are frequently unrealistic, often inappropriately theoretical. When push comes to shove, their idealism takes a stand something like "We must do this, whatever the cost." They read <u>The New Yorker</u> and <u>Esquire</u> and the periodicals of their discipline; they ignore deadlines, fail to read memos, and ask obvious questions. They are inappropriately defensive about what they do not know, which is considerable. When projecting a budget these academics always ask for 20 percent more than they really need! (p. 38).

Conversely, LeCroy presented the academic officers' hypothetical image of business officers.

Business professionals are methodical and sometimes insensitive. They carry pocket-sized calculaters and brief case sized computers. They talk another language--accounting. They display placards that read <u>Time is Money</u> or <u>Waste Not</u>, <u>Want Not</u>, and have trouble with small talk. It is widely suspected that they have 50 percent more money than they say they do. More important, they have a secret institutional kitty stashed away somewhere in case of 'real' hardships! (p. 39).

LeCroy encouraged chief business officers to increase and improve communications using the techniques of self-disclosure, access to information, pacing, and positive attitude (p. 39).

Calver's 1984 study included a section on leadership behaviors. He surveyed community college business officers and their immediate supervisors on business officer leader behaviors, using questions extracted from the Leader Behavior Descriptive Questionnaire (LBDQ)-Form XII to describe the two leader behaviors of initiation of structure (IS) and consideration (CS). Calver selected these two behaviors as the most desirable type of leader behavior based on his research of leadership literature. He used ten items from each of the two scales to measure responses on his five-point "never-seldom-occasionally-often-always" scale (pp. 144-146).

The chief business officers reported relatively high scores on both the initiation of structure and consideration behaviors. This did not differ significantly (.05 level) from the responses of their immediate supervisors, although the supervisors scored their business officers slightly higher on initiation of structure than on consideration while the business officers' self perceptions were slightly higher on consideration than on initiation of structure (p. 162-163, 146).

Calver also asked the immediate supervisors how well their business officers performed their roles. He used a nine dimension evaluation form with a four-point "ineffective-below average effectiveness-above average effectiveness-very effective" scale. Almost 95 percent of the supervisors described their chief business officers' overall leadership effectiveness as at least above average with 42.5 percent ranking their business officers at the very effective level. The dimension of technical ability was most often evaluated as very effective while the dimensions of employee welfare and training were most often identified as below average and ineffective, respectively (p. 152-153, 163). Calver reported that a "low, positive (.20 correlation coefficient), but significant relationship

was found between the CBOs' Composite Effectiveness Level and the size of an institution, that is, the larger the institution, the higher a CBO's effectiveness level. However, since the correlation accounts for only 4% of the variance, it is a very weak correlation" (1984, p. 164).

In addition to job-related responsibilities and relationships, researchers of the financial officer position in higher education have explored chief financial officer title, personal, and educational characteristics.

College Financial Officer Role and Background

The major studies of the chief financial officers in large, public colleges and universities have been conducted by Jenkins, beginning with his initial 1973 study, and including his 1978 and 1983 followup research. In a 1985 article which summarized his 1983 research, Jenkins reported that chief financial officers of large public universities usually carry the title of vice president with about 83 percent of the respondents to his 1983 followup study indicating that they carried the title of vice president or vice chancellor. The two most common titles reported were vice president for business and finance and vice president for business affairs (p. 28).

Keller surveyed 600 chief business officers in accredited, public and private liberal arts colleges, universities, community colleges, junior colleges, technical colleges, health institutions, and other institutions such as religious seminaries. The study focused on work and educational backgrounds, number of functional responsibilities, and time spent on external affairs. She agreed that "a majority of CBOs now have vice presidential titles, except in institutions of under 1000 enrollment

(both public and private) and community colleges of under 5000 enrollment" (p. 39).

Hungerman attempted to determine the profile of the business officer in small colleges. He was interested in background characteristics, relationships to top management, concern with major issues, and position responsibilities. The study results were based upon the self report of responding business officers at fifty-three public and private colleges with enrollments of 1,000 or less. The majority of the respondents held titles such as manager, director, treasurer, comptroller, bursar, and vice chancellor, while about 40 percent held the title of vice president. This finding is similar to Keller's finding in institutions with enrollments of under 1,000 (p. 25).

Setoodeh, in his 1981 study of the chief financial officer position, randomly selected 200 presidents and chief financial officers at private and public, two-year and four-year higher education institutions. He found the most frequent title of the business officer was vice president, with the title of business manager commonly used in two-year and smaller colleges (p. 113).

The 1981 Javidpour research on eighty-six randomly selected public and private institutions of higher education with teaching staffs between five hundred to one thousand found the most prevalent title for chief business officers at large institutions to be vice president followed by a designator such as "for business affairs", while in private institutions the most common title was business manager (p. 113).

The National Association for College and University Business Officers indicates that there are "at least four major functional areas to be administered in a college or university: (1) instruction, research,

and public service, (2) business and financial management, (3) student services, and (4) institutional development, including fund raising, public relations, and alumni relations." (CUBA, Sep, 1982, 1:1, 2). The association further indicates that "not all institutions have an officer for each of these areas. In those that do, however, these officers are: (1) a chief academic officer, usually referred to as a vice president for academic affairs, dean of the college, or provost; (2) a chief business officer, typically designated as vice president for business and finance (or business affairs), business manager, or controller; (3) a student services officer, who may be identified as vice president for student services or dean of students; and (4) a development officer, often referred to as vice president for development (or community or external relations) or director of development." (CUBA, Sep, 1982, 1:1, 3).

Jenkins reported that the average chief financial officer in large public institutions of higher education was male, almost fifty, and had occupied the position for about eight and one-half years (1985, p. 28). He identified a rise in the educational level of chief financial officers in large, public institutions of higher education since 1973, and reported that most have attained at least a master's level in their formal education and many hold the doctorate (1985, p. 28).

Hungerman reported the average respondent was forty-seven years of age, white, male, and averaged six to seven years in their present position. Forty-five percent of the respondents held bachelor's degrees, 43 percent held master's degrees, and 9.5 percent held either an Ed.D or Ph.D (p. 22-23).

Ninety-five percent of all business officers in the Javidpour study were male and 35 years of age or more. He reported that they "may have

a bachelor's or master's degree but the chances of having a doctoral degree is small" (p. 109). Most of the responding business officers were members of at least one professional organization and a small number of them held academic rank from which they teach a few hours at the bachelor's or master's level. Fifty-five percent of them had served twenty-one or more years in business and from eleven to twenty years in the position of chief business officer. The majority of the business officers indicated they reported to the presidents, they received good or very good remuneration, and they had good or very good job satisfaction levels (p. 109-110).

Chief business officers responding to the Keller study were, in the main, white, male, averaged forty-seven years of age, had been appointed to their position within the last five years, and held a master's degree (p. 79-83).

Setoodah described the chief financial officer as "a mature male with a graduate degree, solid work experience in higher education institutions, and a relatively short history of service in his present position" (p. 112).

Calver and Volger reported on the characteristics of community college business officers. They indicated that community college business officers are middle aged (mean of 46 years), white males who entered their current position with almost fifteen years of prior experience, primarily in education, followed by business and the military. They reported that slightly over one half of community college chief business officers entered that position with an earned graduate degree, about 84 percent of which were in the disciplines of business and education. Most of the chief business officers entered the position from outside the institution

and two thirds of them had prior nonbusiness officer experience in two or more career fields (p. 142-143).

Respondents to the 1978 Jenkins study indicated that their primary career orientation before appointment as chief financial officer was college business administration and that, while 58 percent of the respondents indicated the position of chief financial officer was their ultimate career goal, 16 percent desired to become a chief financial officer at a larger or more prestigious institution and 8.5 percent sought a college or university presidency as their ultimate career goal (p. 51). This finding held for his 1983 study also. Specialization for most chief financial officers in large, public institutions of higher education was found by Jenkins to be business administration or management with some specialization in higher education administration (1985, p. 27-29).

Approximately 76 percent of the respondents in Hungerman's study specialized in business administration, accounting, or finance, while the remaining reported specializations were from a variety of disciplines outside the business area. Most (92.4 percent) of the responding business officers reported having previous college business administration work experience while 34 percent had previous experience in college teaching and academic administration. Forty-seven percent of the respondents reported business or industry job histories and 21 percent cited some work experience in the government setting (p. 23-28).

In the Keller study, specialization at the master's level tended to be in business administration, accounting, or finance. The majority of responding business officers with earned doctorates specialized in college/educational administration; the most common undergraduate major was in the field of business (p. 84-89). Keller reported her most

significant finding was that

"30% of CBOs still have had no prior experience in higher education before being appointed CBOs. This would seem a rather high percentage. Some of the 30% were individuals hired many years ago when the practice was more common. It is becoming less so now, yet a considerable number of individuals appointed recently still do not have this experience. More common now is the practice of appointing as CBO those who have a small amount of higher education experience, but whose prior career has been predominantly outside of higher education" (p. 122-123).

Keller noted that a "preference for those whose careers were more specialized to higher education seemed to be exhibited only after institutions reached 2500 in enrollment" (p. 96). She identified different required business officer competencies for different settings with careers specialized to higher education for universities, liberal arts colleges, and health institutions. The amount of previous higher education experience was greater (exceeded the years of outside experience) only for universities and health institutions. A greater percentage of those with the vice presidential title had 75 percent more of their experience in higher education (p. 98).

Twombly's study of career lines of two-year college administrators revealed that "outside sources were the most common direct sources of current chief business officers" (p. 17). The business officers in her study were likely to have moved directly to their current position from a position of the same title at another institution. They also frequently came from positions in business and industry, and school administration. According to Twombly's report, some movement from assistant/associate staff and administrative director/dean was noted (p. 16-23).

Javidpour identified a comprehensive understanding of the major areas of business administration, an M.B.A. degree, an understanding of

the general concept of educational philosophy, and the qualities of tact, human relations skills, experience, ability to cooperate, and supervisory and leadership ability as desired business officer traits (p. 113).

Setoodah ranked the following qualifications as being important to the position: personal traits such as integrity, courtesy, understanding, patience, courage, sensitivity, and vision; a terminal degree, preferable in accounting or business administration; and, administrative experience in a higher education setting (p. 113-115).

Floyd conducted a nationwide survey to ascertain the characteristics, previous employment experiences, and educational backgrounds of business officers at 600 randomly selected public community, junior and technical colleges. She included the chief executive officer, the chief instructional administrator and the chief business officer of each institution contacted. While the profile characteristics identified by Floyd more or less confirmed the findings of others cited in this review, she found "the CBOs disagreed with the CEOs and the CIAs on the preferred minimum educational level. The CBOs preferred the bachelor's degree... while the majority of the CEOs and CIAs preferred the master's degree" (p. 52). Interestingly, Floyd reported a majority of responding business officers held a master's degree or higher (p. 52).

Floyd reported that, for those who preferred a bachelor's degree as the minimum education level for a chief business officer, business administration was the preferred major area of study by the presidents and chief instructional administrators while the chief business officers preferred accounting at the bachelor's level. All three groups agreed that business administration was the preferred major for both "some graduate" and "master's level" study. At the doctoral level, 67 percent of the

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presidents and 50 percent of the chief business officers preferred educational administration as the major area of study, and 58 percent of those chief business officers holding a doctorate majored in educational administration (p. 29-31). Fifty percent of the chief instructional administrators preferred business (accounting and business administration), 25 percent preferred educational administration, and 25 percent preferred any other major area of study at the doctorate level (p. 85-86).

The majority of all groups surveyed by Floyd felt that certification as a public accountant (CPA) was not a necessary requirement for the chief business officer position (p. 31-32). There was also agreement among the three groups that the business officers have previous work experience in education, especially in educational administration (p. 32-37). A majority of the responding presidents and instructional administrators also favored some previous instructional experience and 50 percent of the business officers agreed with them (p. 41). Although a majority of the business officers, instructional administrators, and presidents also considered previous experience in business, industry, and government important, fewer business officers in the Floyd study had specific experience in management and accounting outside the colleges than desired by any of the three groups (p. 46-48, 54).

Summary

The literature revealed a fairly consistent core of responsibilities held by business officers at different kinds of institutions of higher education--public and private, large and small, two- and four-year, and specialized colleges and universities. Most business officers reported complete or major responsibility for accounting, budgeting, bursar, audit

or internal control, investment management, payroll, physical plant, purchasing, insurance, auxiliary services, safety and security, and nonacademic personnel administration.

Institutional and long range planning, coordination of grant and contract administration, and data processing activities were frequently identified by the chief business officers as shared functions. However, the study of small colleges which split data processing into academic and administrative categories found chief business officers held more responsibility for administrative data processing while they were relatively uninvolved in the operation of academic data processing activities. While student financial aid, fund raising, labor relations, and legal services were most often reported by the business officers as minor functions or as functions not performed, most research results indicated they were performed by a minority of business officers on a fairly regular basis.

A common relationship between the chief financial/business officer and the president appears to be as one of several officers sharing major institutional concerns and decisions. Setoodah asserted the business officer has more contact with the president and various governing bodies than other senior administrators and LeCroy depicted the relationship of the business officer to the academic officer as being somewhat adversarial in nature. Positions identified by various researchers as reporting to the chief financial officers were comptroller, director of physical plant, director of personnel, director of auxiliary enterprises and/or some combination of titles which more or less fit into these categories, e.g., a manager of bookstore, business manager, or food service director.

The reports on the business officer relationship to governing boards were mixed; some business officers serve as officers on their boards while

others attend regularly but only become involved when asked to present special reports. Most of the chief business officers, however, attend board meetings and are involved at the subcommittee level, especially with the board's financial subcommittee.

The majority of chief financial officers appear to hold the title of vice president at many types of institutions of higher education and especially at the larger colleges and universities. The typical profile of a business officer for all types of institutions reviewed is that of a white male just under fifty years of age who holds a master's degree and who has fifteen to twenty-year of previous experience, from five to eight of which are in his current position. Jenkins found that the business officer position was the ultimate career goal for a majority of the respondents to his studies and Javidpour reported good or very good reported levels of job satisfaction for the majority of chief business officers responding to his survey.

The primary career orientation, both actual and preferred, of chief financial/business officers at most types of institutions was found to be college business administration, with some reported career background in business, industry, or government settings. However, Keller reported a substantial portion (about one third) of business officers indicated no previous educational experiences prior to appointment to their chief business officer position.

Most chief business officers hold bachelor's degrees while many hold master's degrees and a few hold the doctorate. The majority of reported undergraduate specializations were in accounting, management, and business administration. Business administration and accounting were the most popular specializations at the master's level while the most frequently

reported area of specialization at the doctoral level was educational administration.

Much of the research on chief business officers focused on community colleges with some investigation of institutions of higher education in general which combined the study of chief business officers at large, small, public, private, technical, health, liberal arts, and religious and other specialized colleges and universities. Jenkins investigated the chief financial officer at large, public universities and Hungerman studied the chief business officer at small colleges.

The major focus of chief business/financial officer research has been on the identification of job responsibilities and on developing an educational, career, and personal characteristic profile. Calver also looked at community college business officer performance effectiveness, leader behavior, and level of delegation of assigned tasks while Javidpour asked about job satisfaction and Jenkins inquired about ultimate career goals. Hungerman and Whims most thoroughly studied the relationship of the chief business officer to other administrators and to the board of control. Only Floyd included the chief instructional administrator (CIA) as respondents in her research activities but several investigators recommended that the chief academic officer perceptions of the chief business officer position be explored.

Investigation of the chief financial officer at large, public universities has been limited to the Jenkins surveys which were sent to chief financial officers and concentrated mainly on the identification of reported position responsibilities and briefly touched upon personal, career, and educational characteristics as well as title and hierarchal relationship to the board, the president, and the chief academic officer.

It is the intent of this study to further the research on the chief financial officer position in large, public colleges and universities by examining the perceptions of the presidents and the chief academic officers as well as the perceptions of the chief financial officers in relation to job functions and responsibilities, including a look at levels of chief financial officer personal involvement in identified functional areas. Chief financial officer involvement in executive level, institutional, board, legislative and public relations roles and relationships will also be investigated, including weekly chief financial officer contacts.

CHAPTER THREE

RESEARCH METHODS AND PROCEDURES

The general intent of this investigation was to explore further the position of the chief financial officer at large four-year public colleges and universities. The study was developed to enhance the position profile which has evolved thus far in the literature on the chief business/financial officer, and to explore CFO relationships with institutional, board, legislative, and public constituencies. The main focus of the study was to obtain and compare the perceptions of the CFO position held by three executive officers: the chief financial, the chief executive, and the chief academic officers at selected institutions of higher education. Impressions of chief financial officer responsibilities and the importance of those responsibilities to the institution as well as impressions of institutional, board, legislative, and public relationships were sought.

Population and Sample

The 1988 <u>Higher Education Directory</u> was used to identify four-year public colleges and universities within the fifty American states with listed enrollments of 10,000 or more. The enrollment figures listed in the directory represent head count enrollment as taken from the United States Department of Education Center for Statistics. This identification process produced a numbered list or directory of 190 institutions; the

list of the names of the identified institutions is presented in Appendix E. The chief financial, chief executive, and chief academic officers at these institutions constituted the three respondent populations, and each officer received the appropriate cover letters and questionnaires; these materials are presented in Appendices A, B, and C.

Choice of the Mailed Questionnaire Method

After considering the limitations and advantages of using a written questionnaire approach, a mail questionnaire was selected as the research instrument. Questionnaires have the advantage that they can be administered to more than one person at a time (e.g. an assembled group), sent through the mail rather quickly and inexpensively, answered by the respondent at his/her own pace, designed to maintain respondents' anonymity, and standardized with exactly the same questions for all respondents (Anderson et al, 1975, p. 311). Norusis identifies the great advantages of conducting your own survey as follows.

You can ask the questions you want to ask in the way you want to ask them. You can choose exactly the population you want to study and select just the kind of sample you need... you can deal with all of the problems that come up during the survey itself. In short, you can do everything possible to make sure the survey will help you answer your questions (Norusis, 1986, p. 12).

It was understood that the study would, however, be subject to the limitations incurred when data is obtained through the use of a written questionnaire. Researchers using a written survey must limit their observations to fewer events than with other forms of study. They must select the events to observe before they begin the survey and, because the information gathered is more limited, there is less flexibility in interpretation (Harrison, 1979, p. 13-14). Responses to a mailed questionnaire may

not be accurate or truthful (e.g. a respondent may make careless errors or feel threatened by an item). Low response rates are also a problem and may result in a biased sample, and responses to mailed questionnaires are subject to situationally-induced differences. Further, respondents must be able to read and write (Anderson, et al, p. 311-12 and Norusis, 1983, p. 33).

It was anticipated that the study would yield meaningful results within the described areas of investigation. It was also assumed that the positions of the chief financial officers within the study population were sufficiently homogenous to yield a composite description of role, responsibilities, and relationships, and that the individual opinions of the respondents would provide meaningful collective data.

Several steps were taken to address the general limitations of the mailed questionnaire and promote an acceptable response rate. The total population was surveyed to avoid the risk of sampling error, and the instruments were pretested to assure that items could be completed easily. In addition, the study targeted a relatively homogeneous and highly educated population. Two survey instruments were designed, one for the chief financial officers only, and one for both the chief executive and the chief academic officers.

The first instrument, the chief financial officer questionnaire, included four major sections. Part I (A) addressed job functions and consisted of two dimensions: chief financial officer responsibilities, and the importance of those responsibilities to the institution. Part I (B and C) identified in rank order the five functional areas in which chief financial officers are most and least personally involved. Part II of the CFO questionnaire examined perceptions about chief financial

officer board, institutional, legislative, and external relations, while Part III sought institution enrollment and budget information. Part IV of the CFO questionnaire identified the most frequent weekly contacts of the chief financial officer with other campus individuals. The chief executive and chief academic officer questionnaires were shorter and duplicated Part I (A) and Part II of the chief financial officer questionnaire.

The instrument was pretested to establish content validity--to ascertain that the instrument measured what it was intended to measure (i.e., its accuracy, or the degree that the observable measures were accurate representations of the intentions of the survey). The chief executive, chief academic, and chief financial officers at two universities answered appropriate questionnaires, and the additional review of the instruments by several professors was also obtained. Information provided by the pretesters and reviewers was used to modify the questionnaires.

Development of the Questionnaire

The research questions which follow guided the development of the items for the questionnaire, the formulation of the research hypotheses, and the selection of subsequent data analyses which tested the null hypotheses. Within the scope of large four-year public colleges and universities, only Jenkins has inventoried job function responsibilities, and his study was limited to the self-report of chief financial officers. One aim of this study was to ascertain whether Jenkins' observations held, while a second aim was to explore the perceptions of the presidents and academic officers to determine whether they were in agreement with the chief financial officers' assessment of the responsibility levels of their own job functions. For the responsibility items, a five-point scale and

accompanying definition of the terms "none-minor-shared-major-complete" was used (Jenkins, Calver, et al). It was expected that the financial officers in this study would be in general agreement with the findings of the Jenkins research. It was also assumed that the presidents would agree with the financial officers to some extent (Setoodeh and Whims). Because the academic and financial officers represent two distinct sets of institutional objectives and two distinct organizational divisions, there was interest in whether differences exist between the two and, if so, what kind. Chief academic officer perceptions were expected to differ from financial officer perceptions more than were the perceptions of the presidents (LeCroy).

Research Questions:

- 1. As perceived by the chief executive officers, to what extent is the chief financial officer responsible for the functional areas identified in the research of the literature?
- 2. As perceived by the chief academic officers, to what extent is the chief financial officer responsible for the functional areas identified in the research of the literature?
- 3. As perceived by chief financial officers, to what extent is the chief financial officer responsible for the functional areas as identified in the research of the literature?
- 4. How do the responses of the chief executive, academic, and financial officers to CFO job function responsibility level compare?

Hypothesis:

Ho_{1i} No group differences will be found among the chief executive, chief academic, and chief financial officers' perceptions of levels of responsibility for the identified functional areas $(H_{0i}: u_{Ei} = u_{Ai} = u_{Fi})$ for all i.

In addition to the perceived level of responsibility for the identified job functions, how important to the institution do the respondents perceive the job functions to be? The concept of criticalness assumes one's level of power and influence rises with the essentialness of one's activities to the organization (Mintzberg). Again, it was expected that the presidents would be in stronger agreement with the financial officers than the provosts would be. How does each population's perception of job function responsibility relate to that group's perception of job function importance? Are they strongly alike, somewhat related, weakly related, independent, or mutually exclusive? Because there are so many items (thirty eight) in the job portfolio, medium or weak associations were expected.

Research Questions:

- 5. As perceived by chief executive officers, how important are the identified functional areas to the institution?
- 6. As perceived by chief academic officers, how important are the identified functional areas to the institution?
- 7. As perceived by chief financial officers, how important are the identified functional areas to the institution?
- 8. How do the responses of the chief executive, academic, and financial officers to CFO job function importance compare?

Hypothesis:

Ho_{2i} No group differences will be found among the chief executive, chief academic, and chief financial officers' perceptions of the importance of the responsibilities to the institution $(H_{0i}: u_{Ei} = u_{Ai} = u_{Fi})$ for all i.

Research Ouestions:

9. What is the relationship between the responses of the chief executive officers to the responsibility for the job functions and their responses to the institutional importance of the job functions?

- 10. What is the relationship between the responses of the chief academic officers to the responsibility for the job functions and their responses to the institutional importance of the job functions?
- 11. What is the relationship between the responses of the chief financial officers to the responsibility for the job functions and their responses to the institutional importance of the job functions?

Hypotheses:

- Ho_3 No relationship exists between the executive officers' perceptions of responsibility level and institutional importance (H_0 : $R_{R,I}$ = 0).
- Ho₄ No relationship exists between the academic officers' perceptions of responsibility level and institutional importance $(H_0: R_{R,I} = 0)$.
- Ho_5 No relationship exists between the financial officers' perceptions of responsibility level and institutional importance (H_0 : $R_{R,I} = 0$).

There was additional interest in addressing CFO organizational relationships beyond the job function responsibilities and their importance to the institution. The study also explored the extent to which the chief financial officers were perceived by themselves and their presidents and provosts to be involved and influential in other organizational areas. Questionnaire items which addressed chief financial officers' relationship to their institution's controlling board, their relationship to their institution's executive decision-making council or committee, their relationship to policy formulation and implementation in both business and nonbusiness areas within their institution, their representation of the institution in external relations, and their formal rank within the institution were identified for exploration (Mintzberg).

It was thought that Jenkins' finding on CFO formal rank within the institution would hold, i.e., that chief financial officers would perceive themselves as being ranked slightly lower than the chief academic officer

and equal to or somewhat higher than other vice presidents. This assumption was also made for both the chief executive and the chief academic officers—the expected finding was that the tradition of the academic officer being the "second in command" would hold for all three respondent types.

Research Questions:

- 12. What are the chief executive, chief academic, and chief financial officers' perceptions of financial officer formal rank within the institution?
- 13. How do the chief executive, chief academic, and chief financial officers' perceptions of financial officer formal rank within the institution compare?

Hypothesis:

Ho_{6i} No group differences will be found among the chief executive, chief academic, and chief financial officers' perceptions of CFO formal rank $(H_{0i}: u_{Ei} = u_{Ai} = u_{Fi})$ for all .

Chief financial relationships to the outside governing board were also addressed in the questionnaire through a series of items which asked about the CFO's involvement with board activities and board members as compared to the board involvement of the president, provost, and other vice presidents. The presidents were expected to view themselves as having stronger relationships with the board than the financial officers, to view the provost and financial officers as being equal in board relations, and to view CFO board relations as somewhat stronger than the other vice presidents' board relationships. LeCroy's description of the stereotypical image the CFOs and provost hold of each other led to the speculation that perhaps the provosts would view the financial officers as having somewhat stronger board relations than the provosts and other vice presi-

dents. It was expected that the CFOs would perceive themselves as having board relationships less strong than the presidents, equal to the provosts, and stronger than the other vice presidents.

Research Questions:

- 14. What are the chief executive, chief academic, and chief financial officers' perceptions of financial officer board relations? Descriptive statistics will be presented.
- 15. How do the chief executive, chief academic, and chief financial officers' perceptions of financial officer board relations compare?

Hypothesis:

Ho_{7i} No group differences will be found among the chief executive, chief academic, and chief financial officers' perceptions of chief financial officer board relations $(H_{0i}: u_{Fi} = u_{Ai} = u_{Fi})$ for all i.

Chief financial officer internal relationships were examined through a series of items about major areas of decision-making, policy setting, and policy implementation in colleges and universities. It was expected that the CFOs would view themselves as having a higher impact in their own areas and a lower impact in academic and student areas. No expectations were formulated for the presidents and academic officers.

Research Questions:

- 16. What are the chief executive, chief academic, and chief financial officers' perceptions of financial officer institutional relations? Descriptive statistics will be presented.
- 17. How do the chief executive, chief academic, and chief financial officers' perceptions of institutional relations compare?

Hypothesis:

Ho_{8i} No group differences will be found among the chief executive, chief academic, and chief financial officers' perceptions of financial officer institutional relations $(H_{oi}: u_{Ei} = u_{Ai} = u_{Fi})$ for all i.

The involvement of the chief financial officer in legislative, public, and community relations was also examined.

Research Questions:

- 18. What are the chief executive, academic, and financial officers' perceptions of CFO external relations?
- 19. How do the chief executive, academic, and financial officers' perceptions of CFO external relations compare?

Hypothesis:

Ho₉ No group differences will be found among the chief executive, chief academic, and chief financial officers' perceptions of financial officer external relations $(H_0: u_E = u_A = u_E)$.

The chief financial officers received a slightly longer questionnaire than did the chief executive and chief academic officers. The CFOs
were asked to list the job functions for which they most and least often
delegated assignments to other staff members. The intent was to identify
those areas in which the CFOs spent the greatest and least amount of their
time. They were also asked to list their most frequent weekly campus contacts in an attempt to build a picture of the typical CFO campus network.
This has been done only at the community college level (Calver and Whims).

Research Ouestions:

- 20. In rank order, with which five functional areas are the chief financial officers least likely to be involved?
- 21. In rank order, with which five functional areas are the chief financial officers most likely to be involved?
- 22. In rank order, what are the ten most frequent chief financial officer weekly contacts with other campus individuals?

The independent variables were examined to determine whether relationships between them and the questionnaire response patterns exist.

Research Ouestion:

23. Are there relationships among the demographic characteristics (head count enrollment, budget, number of years served, and geographic location) and the responses to items addressing functional responsibilities, importance of functional responsibilities to the institution, formal rank, and board, institutional, and external relations?

Hypothesis:

Ho₁₀ There are no associations in response patterns as a function of years served, geographic area, budget, or enrollment

Ouestionnaire Administration and Data Collection

The questionnaire was mailed to the chief executive, chief academic, and chief financial officers at selected institutions with an accompanying cover letter which described the purpose of the study, its importance, the importance of the response, and the desired response date. In addition, the investigator offered to provide a summary of the findings. Each surveys was printed on a different color of paper to expedite the administration, collection, and data coding processes (Borg and Gall, and Dillman).

A week after the original mailing, the first followup procedure was implemented. The complete respondent group was thanked for responding or reminded, if they had not already done so, that their response was important (Dillman, and Calver, 1973). Copies of this correspondence are included in Appendix D.

The second followup effort consisted of mailing a new cover letter (Borg and Gall) and a second copy of the appropriate questionnaire to non-respondents several weeks after the reminder/thank you letter was sent. In the instances where only one or two responses were received from a given institution, a personal note was handwritten on the followup cover letter which informed the nonrespondent that responses had been received

from their executive, academic, and/or financial officer (s), and that filling out and returning the questionnaire would help round out or complete the data set (Calver). Copies of the followup letters are presented in Appendix E.

The final followup effort was to telephone those chief executive and academic officers whose other two officers (financial and president or provost) had previously responded to either the initial or second mailing and asking if they would be willing to complete the questionnaire.

Questionnaires were individually stamped with an identification number, and an identical number was placed next to the corresponding institution on the master mailing list (Calver, Dillman). A slash mark was made in the appropriate officer column next to the number on the list when the matching questionnaire was received. A second slash mark (which formed an 'X' in the column) was made when each reply was double checked for accurate entry prior to further followup and processing activities.

Data Organization

The individual questionnaire items about job function responsibility, job function importance, board relations, institutional involvement, and external relations were grouped into subscales for the following several reasons. First, keeping the number of statistical analyses to the minimum reduces Type I error, the probability of statistically significant differences occurring because of chance. With some thirty-eight responsibility items, thirty-eight importance items, two formal rank items, fourteen board relations items, nine institutional relations items, and five external relations items, there were 106 separate comparisons possible for each respondent population. Testing each comparison separately would lead

one to predict that several statistically significant results would be found in the data by chance alone, even if the populations do not differ.

Second, the scope of the individual indicator may not match the scope of the concept that we wish to measure, i.e., particular questions may indicate what we wish to measure for some respondents but not for others. To know what a particular response should be taken to indicate, we can see whether it forms part of a larger pattern of response.

Third, the response to any single question may be in error and the effects of such an error on a single item will be diluted if more aggregate data is analyzed. Last, indices and scales are efficient mechanisms for data analysis; considering several items may give a more comprehensive and more accurate indication (Orenstein and Phillips, p. 258-260, Babbie, p. 390-391).

The thirty-eight job function areas were divided into five categories taken from the reading of the literature and presented below (NACUBO, Whims, Calver, et al). Ten subscales were developed from this consolidation--five responsibility subscales and five importance subscales. The job function groupings were then reviewed by several chief financial officers who agreed with the placement of the job functions within the groups.

Job Function Area Subscales Based on Reading of the Literature

<u>Accountancy</u>

Accounting
Auditing
Bursar/Cashier Operations
Internal Control
Payroll
Reporting

<u>Finance</u>

Borrowing of Finances
Budget Control
Budget Development
Cost Information Determin.
Development/Fund Raising
Economic Dev./Real Estate
Indirect Cost Rate Estab.
Investment Management

Administration

Grant & Contract Administration
Labor Relations (academic)
Labor Relations (nonacademic)
Legal Management
Management Information Systems
Institutional Research
Personnel Administration (nonacademic)
Risk Management and Insurance
Space Management

General Services

Campus Mail Service
Data Processing (academic)
Data Processing (nonacademic)
Facility Planning/Construction
Facility Operation/Maintenance
Physical Plant
Purchasing
Safety and Security
Transportation

Business Services

Bookstore Food Services Housing Press/Copy Centers University Center Telecommunications

The thirty relationship items in Part II of the parallel portion of the survey instruments reflecting Mintzberg's controlling board, internal, and external influence considerations were collapsed into nine sub-scales:

1) CFO organization rank; 2) CFO board relations compared to the president; 3) CFO board relations compared to the provost; 4) CFO board relations compared to the other vice presidents; 5) CFO executive council impact; 6) CFO involvement in academic areas; 7) CFO involvement in business areas; 8) CFO involvement in student affairs; and, 9) CFO external relations. Examination of both Part I and Part II data focused on subscale rather than on individual item analyses.

Data Analysis

The parallel portions of the questionnaires consisted of a fivepoint scale. In the past, scaled data of this nature would be considered as only ordinal data, and the statistics appropriate for this level of measurement would be limited (Stevens, 1975, in Bohrnstedt and Knoke, 1988: p. 16-17). More recently, Bohrnstedt and Knoke have argued that the most important distinction in selecting appropriate statistical techniques is whether the underlying variables being considered are continuous or discrete: "Since most ordinal scales are assumed to reflect an underlying concept which is continuous, their measures will often be treated as if they were continuous as well" (p. 18). In this study, the underlying variables are considered to be continuous and statistical techniques appropriate to this type of data were used.

Preliminary analysis included obtaining frequency counts and percents for all items. This produced a basic descriptive analysis, as well as making it possible to check for any incorrect coding or other irregularities not found in the original data entry examination.

The focus was on summary scores for each of the subscales rather than on each of the 106 items separately. First, a priori groupings were formed based upon a conceptual interpretation of a reading of the literature, then a reliability analysis was conducted to examine their cohesiveness (scale reliability). Several indices based on more than one data item were calculated for each of the three respondent groups. Items were dropped from their subscales when or if the item-total correlation was below .3; if there was a moderate item-total correlation, below .5, and the other variables in the group had noticeably stronger item-total correlations; or if the alpha score for the scale was considerably improved by dropping an item. Further, alpha coefficients above .4 were required for subscale retention. Adjustments were made to subscale content prior to further analytic activity and are discussed fully in Chapter Four. When reporting subscale percent distributions, data were categorized into five

discrete units to represent the five-point scale used in the survey instrument. The ranges were 1 to 1.50 (1), 1.51 to 2.50 (2), 2.51 to 3.50 (3), 3.51 to 4.50 (4), and 4.51 to 5 (5).

The Pearson's correlation coefficient technique was used to measure the degree of association between the presidents' perception of both CFO job function responsibility and job function importance and to indicate the strength of agreement about the relationship, if any. This technique was repeated for the chief academic officer population and for the chief financial officer population.

Statistical differences among the three groups were tested at the .05 level of significance using analysis of variance (Anova), with the Scheffe test employed as the post hoc comparison. These procedures were applied when looking for differences in the independent means among the three populations on job function responsibility levels, on the importance of the job functions to the institution, on formal rank, on board relations, on institutional relations, and on external relations.

CFO responses to the most and least delegated job functions were tabulated to determine the five most often named activities, and weekly campus contact replies were analyzed to determine the ten most often named contacts. The chi square test was used to determine whether there were associations between the response patterns and the independent variables undergraduate enrollment, graduate enrollment, budget size, years served, or geographic location.

Summary

The purpose of the study; characteristics of the population and sample; the rationale for using a mail questionnaire; the development of the

survey instrument, including a presentation of underlying research questions and testable hypotheses; procedures for administration of the survey and collection of data; and the techniques selected for analyzing the data resulting from the research project were discussed in this chapter. The study involved using two questionnaires which shared a common core of items to gather responses from the three types of respondents. Comparisons by respondent type and questionnaire item groupings were proposed. Chapter Four will present fully the findings of the study.

CHAPTER FOUR

ANALYSIS AND PRESENTATION OF THE DATA

Surveys were mailed to three populations, 190 chief executive, 190 chief academic, and 190 chief financial officers at large, four-year public colleges and universities. The response rate for the chief academic and chief financial officer populations was very good, the 127 responses needed to attain the 95 percent confidence level was obtained. The response rate for the chief executive officers was lower, only 96 replies were received from this population. Additionally, several of their returned forms bore initials which might indicate that replies were made by another administrator. Because the t-test comparisons of the responding and nonresponding CEOs on the geographic region, undergraduate enrollment, graduate enrollment, and budget variables produced no significant differences, analyses were conducted as described in the previous chapter. However, caution in interpreting the chief executive officers' responses was observed throughout the presentation and discussion of the data.

Table 1: Actual and Percent Respondent Rates*

Population	Number of Respondents	Percent of Respondents
Chief Executive	96	50.5
Chief Academic	127	66.8
Chief Financial	130	68.4

^{*} A total of 190 surveys was sent to each respondent group

Subscale Reliability

The reliability check on the subscales developed from the literature assumed three criteria for the rejection of an item from its a priori subscale: (1) an item-total correlation below 0.3; (2) a moderate item-total correlation, between .3 and .5, when the other variables in the group had noticeably stronger item-total correlations; or, (3) the potential impact on the alpha score of dropping an item.

Reliabilities for job function responsibility subscales led to the deletion of auditing (.23), reporting (.24), development/fund raising (.15), and grant and contract administration (.18) from their original groupings because item-total correlations were below 0.3. The item-total correlations for the business services variables ranged from .56 to .76 with the exception of telecommunications (.44) which was pulled from the group based on the second criterion. Item-total correlations for general services variables ranged from .58 to .82 with the exception of academic data processing (.33) and non-academic data processing (.42), which were removed from that subscale. The item-total correlations for the external relations variables ranged from .51 to .72 with the exception of liaison with student and parents (.38) which was deleted from the external relations subscale.

Auditing, reporting, development/fund raising, grant and contract administration, telecommunications, academic data processing, and non-academic data processing were then grouped tentatively. Only the telecommunications, academic data processing, and non-academic data processing variables exhibited item-total correlations above a 0.3; the other variables ranged from .13 to .21. A subsequent grouping of just telecommunications, academic data processing, and non-academic data processing

produced an alpha coefficient of .7888, and an experimental subscale containing the communications functions, data services, was proposed for investigative purposes. The adjusted groupings follow.

Job Function Area Subscales Modified to Reflect Reliability Testing

Accountancy

Accounting
Bursar/Cashier Operations
Internal Control
Payroll

Administration

Labor Relations (academic)
Labor Relations (nonacademic)
Legal Management
Management Information Systems
Institutional Research
Personnel Administration (nonacademic)
Risk Management and Insurance
Space Management

Business Services

Bookstore Food Services Housing Press/copy centers University Center

Data Services

Data Processing (academic)
Data Processing (nonacademic)
Telecommunications

<u>Finance</u>

Borrowing of Finances
Budget Control
Budget Development
Cost Information Determination
Economic Dev./Real Estate
Indirect Cost Rate Estab.
Invest Management

General Services

Campus Mail Service
Facility Planning/Construction
Facility Operation/Maintenance
Physical Plant
Purchasing
Safety and Security
Transportation

The Part II questionnaire subscales, board relations, institutional relations, and external relations (without the student and parent liaison item) had alpha coefficients ranging from .69 to .94. There was a total of twenty subscales after the reliability adjustments were made--six job function responsibility level subscales, six job function importance to the institution subscales, three board relations subscales, four institutional relations subscales, and an external relations subscale.

Table 2: Subscale Reliability Coefficients

Subscale Name	Alpha Score
PART I SUBSCALES:	
Accountancy (Responsibility)	.7979
Administration (Responsibility)	.7744
Business Services (Responsibility)	.8370
Data Services (Responsibility)	.7888
Finance (Responsibility)	.6915
General Services (Responsibility)	.9371
Accountancy (Importance)	.7765
Administration (Importance)	.8339
Business Services (Importance)	.7846
Data Services (Importance)	.7414
Finance (Importance)	.7445
General Services (Importance)	.8697
PART II SUBSCALES:	
Board (CFO to CEO)	.7900
Board (CFO to CAO)	.8930
Board (CFO to other Vice Presidents)	.9217
Executive Council	.8171
CFO in Academic Areas	.7325
CFO in Business Areas	.7605
CFO in Student Areas	.8061
CFO External Relations	.7925

The comparison of the chief financial officer rank with that of the provost and the comparison of the chief financial officer rank to those of the other vice presidents were treated separately. The auditing, reporting, grant and contract administration, and perform as liaison to students and parents items were not included in any of the subscales. Again, the focus of analyses was on the twenty subscales and on the two formal rank items.

Survey Part I CFO Job Function Subscale Percent Distributions

Part I of the questionnaire listed thirty-eight job function responsibilities identified in the literature on the chief business/financial officer in higher education. The focus was on large, four-year public colleges and universities and the intent was to obtain the perceptions of the chief executive and chief academic officers as well as the self report of the chief financial officers. When reporting subscale percent distributions for responsibility levels and importance, data were categorized into five discrete units to represent the five-point scale used in the survey instrument. The ranges were 1 to 1.50 (none/none), 1.51 to 2.50 (minor/low), 2.51 to 3.50 (shared/medium), 3.51 to 4.50 (major/high), and 4.51 to 5 (complete/critical). Associated ANOVA tables begin on page 69.

Table 3 presents the perceived level of CFO responsibility for the accountancy subscale job functions and for their perceived institutional importance by respondent type. Some 86.7 percent of the presidents, 85.7 percent of the academic officers, and 95.3 percent of the financial officers indicated the CFO has major or complete responsibility for accountancy functions. Some 83.1 percent of the presidents, 77.3 percent of the academic officers, and 78.2 percent of the financial officers perceived

accountancy to be of high or critical importance to their institutions.

Table 3: Percent Distributions for the Accountancy Subscale by Respondent Type

Val	ue	Pero Execu		Percent Academic		Percent Financial	
Respon- sibility		Respon- sibility	Impor- tance	Respon- sibility	Impor- tance	Respon- sibility	Impor- tance
None	None	2.2	0.0	0.9	0.0	0.8	0.0
Minor	Low	5.6	0.0	3.6	1.8	0.8	0.8
Shared	Medium	5.5	16.9	9.8	20.9	3.1	21.0
Major	High	27.8	47.1	44.6	57.3	32.8	58.0
Complete	Critical	58.9	36.0	41.1	20.0	62.5	20.2
Tot	Total		100.0	100.0	100.0	100.0	100.0

The percent distributions for responses to the administrative job functions and the perceived importance of them to the institution are presented in Table 4. The majority of the academic officers, 53.9 percent, reported the administrative subscale assignments were shared compared to 44.3 percent of the responding presidents and financial officers.

Table 4: Percent Distributions for the Administration Subscale by Respondent Type

Val	ue	Perce Execut		Percent Academic		Percent Financial	
Respon- sibility		Respon- sibility	Impor- tance	Respon- sibility	Impor- tance	Respon- sibility	Impor- tance
None	None	8.0	0.0	7.7	0.0	5.6	0.0
Minor	Low	26.1	1.2	23.9	2.6	26.7	5.5
Shared	Medium	44.3	29.3	53.9	35.7	44.3	41.3
Major	High	18.2	56.1	14.5	49.5	21.8	47.7
Complete	Critical	3.4	13.4	0.0	12.2	1.6	5.5
Tot	Total		100.0	100.0	100.0	100.0	100.0

Nearly a third of all three respondent groups viewed the administrative functions as minor or not the responsibility of the CFO. Only 14.5 percent of the CAOs perceived the administrative functions as major or complete CFO responsibilities while 21.6 percent of the presidents and 23.4 percent of the financial officers indicated major or complete responsibility for the administrative functions identified in the questionnaire.

Sixty-six percent of the responding presidents rated the administrative functions as being of high or critical importance with 61.7 percent of the academic officers and 53.2 percent of the financial officers sharing that perception.

The percent distributions for the business services subscale are displayed in Table 5. Data indicate that 47.7 percent of the presidents, 45.4 percent of the academic officers, and 40.8 percent of the financial officers viewed the chief financial officers' responsibility level for business services functions as minor or none, while close to 30 percent of respondents in each of the groups viewed business services functions as being shared.

Table 5: Percent Distributions for the Business Services Subscale by Respondent Type

Val	ue	Perce Execut		Percent Academic		Percent Financial	
Respon- sibility	Impor- tance	Respon- sibility	Impor- tance	Respon- sibility	Impor- tance	Respon- sibility	Impor tance
None	None	22.1	0.0	18.5	1.0	18.3	1.8
Minor	Low	25.6	3.7	26.9	1.9	22.5	1.8
Shared	Medium	32.6	52.4	30.5	44.2	29.2	41.9
Major	High	13.9	32.9	17.6	47.0	24.2	48.1
Complete	Critical	5.8	11.0	6.5	5.9	5.8	6.4
Tot	al	100.0	100.0	100.0	100.0	100.0	100.0

Thirty percent of the chief financial officers ranked business services functions as major or complete CFO responsibilities compared to 24.1 percent of the CAOs and 19.7 percent of the presidents. Some 54.5 percent of the financial officers and 52.9 percent of the academic officers perceived business services functions as high or critical compared to 43.9 percent of the presidents. The majority of the presidents, 52.4 percent, rated business services as being of medium importance to the institution.

Finance functions were identified as the major or complete responsibility of the CFO by 68.6 percent of the presidents, 57.9 percent of the academic officers, and 69.4 percent of the financial officers. Interestingly, 81.9 percent of the presidents and 78 percent of the CAOs perceived finance functions as being of high or critical institutional importance compared to 65.1 percent of the financial officers. A third of the financial officers ranked financial responsibilities as being of medium institutional importance compared to 15.7 percent of the presidents and 21.1 percent of the academic officers. The percent distributions for the finance subscale are provided in Table 6.

Table 6: Percent Distributions for the Finance Subscale by Respondent Type

Val	ue	Percent Executive		Percent Academic		Percent Financial	
Respon- sibility		Respon- sibility	Impor- tance	Respon- sibility	Impor- tance	Respon- sibility	Impor tance
None	None	0.0	0.0	0.0	0.0	0.8	0.0
Minor	Low	9.3	2.4	7.0	0.9	8.9	0.0
Shared	Medium	22.1	15.7	35.1	21.1	20.9	34.9
Major	High	55.8	65.0	50.9	63.3	52.5	61.4
Complete	Critical	12.8	16.9	7.0	14.7	16.9	3.7
To	tal	100.0	100.0	100.0	100.0	100.0	100.0

The percentage distributions for the general services subscale are presented in Table 7. These functions were rated as major or complete CFO responsibilities by 65.6 percent of both the executive and financial officers and by 71.2 percent of the academic officers. General services assignments were rated as minor or not CFO responsibilities by 29.2 percent of the executive officers, 22.4 percent of the academic officers, and 25.0 percent of the financial officers. Less than 10 percent of each respondent type viewed general services job functions as shared. General services functions were considered as being highly or critically important to the institution by 83.3 percent of the presidents, 72.7 percent of the academic officers, and 71.1 percent of the financial officers.

Table 7: Percent Distributions for the General Services Subscale by Respondent Type

Val	Value		Percent Executive		Percent Academic		Percent Financial	
Respon- sibility	Impor- tance	Respon- sibility	Impor- tance	Respon- sibility	Impor- tance	Respon- sibility	Impor- tance	
None	None	10.4	0.0	8.0	0.0	4.7	0.0	
Minor	Low	18.8	1.1	14.4	0.8	20.3	1.7	
Shared	Medium	5.2	15.6	6.4	26.5	9.4	27.2	
Major	High	28.1	61.1	33.6	52.9	23.4	60.4	
Complete	Critical	37.5	22.2	37.6	19.8	42.2	10.7	
Tot	al	100.0	100.0	100.0	100.0	100.0	100.0	

Table 8 presents the percent distributions for the data services subscale. All three respondent types were divided on the perception of CFO responsibility for data services functions, but were in agreement that the functions were of high or critical importance to the institution. From 44 to 49 percent of all three respondent groups perceived data services

Table 8: Percent Distributions for the Data Services Subscale by Respondent type

Val	Value		ent cive	Percent Academic		Percent Financial	
Respon- sibility	Impor- tance	Respon- sibility	Impor- tance	Respon- sibility	Impor- tance	Respon- sibility	Impor- tance
None	None	21.3	1.1	18.3	0.0	21.5	0.0
Minor	Low	24.4	0.0	26.1	1.6	17.7	1.6
Shared	Medium	23.4	6.7	24.6	8.2	20.8	9.9
Major	High	19.2	58.9	21.5	55.0	22.3	59.0
Complete	Critical	11.7	33.3	9.5	35.2	17.7	29.5
Tot	al	100.0	100.0	100.0	100.0	100.0	100.0

as being minor or not a CFO responsibility. Conversely, 30 to 40 percent of all three groups viewed data services functions as major or complete CFO responsibilities. Data services were rated as shared CFO functions by 23.4 percent of the presidents, 24.6 percent of the academic officers, and 20.8 percent of the financial offices.

Some 92.2 percent of the responding presidents, 90.2 percent of the CAOs, and 88.5 percent of the financial officers perceived data services functions as being highly or critically important to the institution.

Survey Part I Responsibility to Importance Correlation Coefficients

The CFO job function responsibility subscales were compared to the parallel job function importance subscales for each of the three sample populations, the chief executive, the chief academic, and the chief financial officers. The resulting correlation coefficients are presented in Table 9. All significant coefficients were positive; the responses concerning responsibility and importance tended to yield either high scores or low scores on both items.

Table 9: Comparison of Responsibility to Importance--Subscale Correlation Coefficients by Respondent Type

Subscale Name	Executive	Academic	Financial
Accountancy	.4371**	.2878**	.3936**
Administration	.1848*	.1970*	.2684**
Business Services	.2714**	.3149**	.3617**
Data Services	.1525	.1336	.1387
Finance	.4521**	.3752**	.4391**
General Services	. 2804**	.3280**	.2055*

^{*} significant at less than the .05 level

Coefficients ranging from .00 to .20 were interpreted as no or negligible correlations; .20 to .40 coefficients represented the range for low correlation; .40 to .60 coefficients represented the range for moderate correlations; .60 to .80 coefficients represented a marked degree of correlation; and, coefficients above .80 were interpreted as high correlations (Franzblau). Although significant correlations were obtained, most were in the no or low categories, while a few attained moderate status.

There was a moderate correlation between the presidents' perceived level of financial officer responsibility for accountancy and finance and the perceived importance of those functions to the institution. The correlations between the presidents' responses to the level of financial officer responsibility and institutional importance for the business services and general services subscales indicated a low relationship, while the correlations for the administration and data services subscales fell in the no relationship category.

^{**} significant at less than the .01 level

The chief academic officers indicated no correlation between CFO level of responsibility and institutional importance for the administration and data services subscales. They indicated a low relationship between responsibility and importance for the accountancy, business services, finance, and general services subscales.

The financial officers indicated a moderate relationship between the CFO responsibility level and importance to the institution on the finance subscale and no relationship on the data services subscale. The financial officers indicated a low relationship between CFO responsibility and institutional importance for the remaining subscales, administration, accountancy, business services, and general services.

Overall, only the accountancy and finance subscales for the presidents and the finance subscale for the financial officers attained a moderate relationship level. No significant correlations at the .05 level were obtained for the data services subscale.

Survey Part I CFO Job Function Delegation

The chief financial officers were asked to indicate five job functions which they most often delegate (were least personally involved with) and the five job functions which they least often delegate (were most personally involved with). The findings are illustrated in Table 10.

The payroll, accounting, bursar/cashier, reporting, and purchasing and transportation job functions were identified as the most often delegated job functions. Budget development, budget control, borrowing of finances and financial planning, investment management, and physical plant were the job functions the financial officers delegated least of-

ten. Four of the least delegated items are in the finance subscale, which was viewed by about two thirds of the chief executive, chief academic and chief financial officers as being the major or complete responsibility of the CFO. Over two thirds of all three respondent types also agreed that finance was of high or critical importance to the institution.

Table 10: CFO Most and Least Delegated Job Functions as Reported by the Chief Financial Officers

	Most Delegated	(Percent) Respondents	(Percent) <u>Least Delegated</u> Respondents
1.	Payroll	(10.0)	1. Budget Development (13.2)
2.	Accounting	(9.6)	2. Budget Control (9.5)
3.	Bursar/cashier	(7.9)	3.5 Borrowing Finances (7.3)
4.	Reporting	(5.2)	3.5 Financial Planning (7.3)
5.5	Purchasing	(5.0)	5. Investment Management(6.3)
5.5	Transportation	(5.0)	6. Physical Plant (6.2)

Summary of Survey Part I

In summary, the findings for Part I of the questionnaire, the chief financial officer job function responsibility levels and the importance of the functions to the institution indicate that at least three fifths of all respondent types perceived the CFO as having major or complete responsibility for the accountancy and general services job functions. The chief financial officers appear to view themselves as significantly more responsible for accountancy functions than do the academic officers. Over three fifths of the responding presidents and financial officers also concurred that the CFO has major or complete responsibility for finance

job functions, and a majority of the academic officers (57.9 percent) were in agreement. Four of the least delegated job functions identified by the responding chief financial officers fell within the parameters of the finance subscale.

Less than a third of each respondent group perceived the CFO as having major or complete responsibility for the administration and business services subscale job functions. Fewer than one third of the presidents and academic officers perceived the CFO as having major or complete responsibility for data services functions whereas 40 percent of the CFOs viewed data services functions as major or complete CFO responsibilities.

More than three fifths of each respondent group ranked all of the job function subscales, except the business services subscale, as being of high or critical importance to the institution. About one half of the academic officers and financial officers viewed the business services job functions as highly or critically important, while about one half of the presidents perceived them to be of medium importance to the institution.

Survey Part I Comparisons of Respondent Types on CFO Responsibility

The responses of the chief executive, the chief academic and the chief financial officers to the job function responsibility subscales were compared using oneway analysis of variance (ANOVA) tests. The subscale means for each respondent type were compared to discover whether differences exist. Where significance at or below the .05 level were found, a multiple comparison test was applied to ascertain where the differences were. The Scheffe test was selected as post hoc comparison for this study.

Analysis of variance data for the accountancy responsibility subscale is presented in Table 11 and associated descriptive statistic data is presented in Table 12.

Table 11: Responsibility for Accountancy: Subscale ANOVA Data

Source	Degrees of	Sum of	Mean	F	F
	Freedom	Squares	Squares	Ratio	Probability
Between Group Within Groups Total	2 327 329	5.9662 169.0461 175.0123	2.9831 .5170	5.7704	.0034

Table 12: Responsibility for Accountancy: Subscale Descriptive Statistics

Group Type	Count	Mean	Standard Deviation	Standard Error
Executive Academic Financial Total	90 112 128 330	4.4000 4.3058 4.6133 4.4508	.8723 .7479 .5558 .7294	.0920 .0707 .0491 .0401
Fixed Effe Random Eff			.7190	.0396 .0963
Random Effo Estimate o		n Compone	nt Variance (0.0226

Because significance between the three respondent types was found at less than the .05 level, a multiple comparison was made to ascertain where the difference occurred. The means of the academic officers and the CFOs differed. The financial officers viewed themselves as significantly more responsible for the accountancy functions than the academic officerss perceived the CFOs to be. The means between the financial officers and the presidents and between the academic officers and the presidents were not found to be significant at the .05 level and are considered as equiva-

lent. Table 13 presents the post hoc procedure data.

Table 13: Responsibility for Accountancy: Subscale Post Hoc Data

Mean	Group	Academic	Executive	Financial
4.3058 4.4000 4.6133	Academic Executive Financial	*		

(*) Denotes pairs of groups significantly different at the 0.050 level

The analysis of variance data for the perceptions of financial officer responsibility for administration job functions and the associated descriptive statistics data are presented in Tables 14 and 15, respectively. No significant differences were identified among the three groups at the .05 level of significance.

Table 14: Responsibility for Administration: Subscale ANOVA Data

Source	Degrees of	Sum of	Mean	F	F
	Freedom	Squares	Squares	Ratio	Probability
Between Groups Within Groups Total	2 326 328	1.1192 213.2756 214.3948	.5596 .6542	.8554	.4261

Table 15: Responsibility for Administration: Subscale Descriptive Statistics

Group Type	Count	Mean	Standard Deviation	Standard Error
Executive Academic Financial Total	88 117 124 329	2.8722 2.7906 2.9264 2.8636	.8855 .7561 .8002	.0944 .0699 .0719
Fixed Effect Random Effe	cts	2.0030	.8088	.0446
Random Effo Estimate o		. Componen	t Variance	-0.0009

The means of the three respondent types for the business services subscale were compared and no significant differences were found. The ANOVA and descriptive statistic data are presented in Tables 16 and 17.

Table 16: Responsibility for Business Services: Subscale ANOVA Data

Source	Degrees of	Sum of	Mean	F	F
	Freedom	Squares	Squares	Ratio	Probability
Between Groups Within Groups Total	2 311 313	1.6640 430.5949 432.2589	.8320 1.3845	.6009	.5490

Table 17: Responsibility for Business Services: Subscale Descriptive Statistics

Group Type	Count		Standard Deviation	Standard Error
Executive Academic Financial Total	86 108 120 314	2.5930 2.7074 2.7750 2.7019	1.1526 1.1860 1.1852 1.1752	.1243 .1141 .1082 .0663
Fixed Effect Random Effe	cts	2.7019	1.1767	.0664 .0664
Random Effe Estimate of		Component	Variance	-0.0053

The ANOVA test for the finance subscale was also conducted and resulted in no significant differences among the three respondent types. Analysis of variance data and associated descriptive statistics for the finance subscale are shown in Table 18 and Table 19. There were no significant differences among the sample populations at the .05 level for the finance subscale.

Table 18: Responsibility for Finance: Subscale ANOVA Data

Source	Degrees of	Sum of	Mean	F	F
	Freedom	Squares	Squares	Ratio	Probability
Between Groups Within Groups Total	2 321 323	3.0305 167.7501 170.7805	1.5152 .5226	2.8995	.0565

Table 19: Responsibility for Finance: Subscale Descriptive Statistics

Group Type	Count	Mean	Standard Deviation	Standard Error
1706	Count	Heali	DEVIGCION	LITUI
Executive	86	3.6860	.7264	.0783
Academic	114	3.5589	.6433	.0602
Financial	124	3.7846	.7868	.0707
Total	324	3.6790	.7271	.0404
Fixed Effe	cts		.7229	.0402
Random Eff	ects			.0691
Random Eff Estimate o		n Componei	nt Variance (0.0093

Comparisons were also made for general services responsibility subscale group means. The ANOVA and descriptive statistic data for this subscale are presented below in Tables 20 and Table 21. There were no significant differences among the three responding officer types on this subscale.

Table 20: Responsibility for General Services: Subscale ANOVA Data

Source	Degrees of	Sum of	Mean	F	F
	Freedom	Squares	Squares	Ratio	Probability
Between Groups Within Groups Total	2 346 348	1.3969 593.5209 594.9178	.6985 1.7154	.4072	.6658

Table 21: Responsibility for General Services: Subscale Descriptive Statistics

Group Type	Count	Mean	Standard Deviation	Standard Error
Executive Academic Financial Total	96 125 128 349	3.6131 3.7600 3.7489 3.7155	1.3983 1.2418 1.3058 1.3075	.1427 .1111 .1154 .0700
Fixed Effect Random Effe	cts	3./155	1.3075	.0700 .0701 .0701
Random Effe Estimate of	•	Component	. Variance	-0.0088

The means comparison for the data services responsibility subscale yielded no significant differences in the response patterns of the three respondent groups. The analysis of variance and descriptive statistic data are presented in Table 22 and Table 23, respectively.

Table 22: Responsibility for Data Services: Subscale ANOVA Data

Source	Degrees of	Sum of	Mean	F	F
	Freedom	Squares	Squares	Ratio	Probability
Between Groups Within Groups Total	2 347 349	3.5721 574.0964 577.6686	1.7861 1.6545	1.0796	.3409

Table 23: Responsibility for Data Services: Subscale Descriptive Statistics

Group Type	Count		Standard Deviation	Standard Error
Executive Academic Financial Total	94 126 130 350	2.7766 2.7619 2.9769 2.8457	1.2909 1.2102 1.3527 1.2865	.1331 .1078 .1186 .0688
Fixed Effect Random Effe			1.2863	.0688 .0715
Random Effe Estimate of		Component	Variance	0.0011

There was, overall, only one significant difference among the three respondent types on the six job function responsibility subscales. The academic officers and the chief financial officers differed significantly on the accountancy subscale, the CFOs indicated that they held more responsibility for these functions than the provost viewed them as having. There were no significant differences between the presidents and either the academic officers or financial officers on the accountancy subscale.

Survey Part I Comparisons of Respondent Types on CFO Importance

The job function importance subscale group means were also compared for differences among the three respondent types using analysis of variance and applying the Scheffe procedure as the post hoc treatment when differences were found. Analysis of variance data for the accounting importance subscale is presented in Table 24 on the following page. The associated descriptive statistic data is displayed in Table 25. No significant differences were found among the means for the chief executive, chief academic, and chief financial officers on the accountancy importance subscale.

Table 24: Importance of Accountancy: Subscale ANOVA Data

Source	Degrees of	Sum of	Mean	F	F
	Freedom	Squares	Squares	Ratio	Probability
Between Groups Within Groups Total	2 315 317	1.5094 112.2901 113.7995	.7547 .3565	2.1171	.1221

Table 25: Importance of Accountancy: Subscale Descriptive Statistics

Group Type	Count	Mean	Standard Deviation	Standard Error
Executive Academic Financial Total	89 110 119 318	4.2472 4.0977 4.0903 4.1368	.5989 .5934 .5990 .5992	.0635 .0566 .0549
Fixed Effe	cts	4.1300	.5971	.0335
Random Eff Estimate		en Compon	ent Variance	0.0038

Comparisons were also made for administration importance subscale group means. The ANOVA and descriptive statistic data for this subscale are presented in Tables 26 below and Table 27 on the following page.

Table 26: Importance of Administration: Subscale ANOVA Data

Source	Degrees of	Sum of	Mean	F	F
	Freedom	Squares	Squares	Ratio	Probability
Between Groups Within Groups Total	2 303 305	3.1031 110.1937 113.2968	1.5516 .3637	4.2663	.0149

Table 27: Importance of Administration: Subscale Descriptive Statistics

Group Type	Count	Mean	Standard Deviation	Standard Error
Executive Academic Financial Total	82 115 109 306	3.8552 3.7717 3.6078 3.7357	.5752 .6102 .6158 .6095	.0635 .0569 .0590 .0348
Fixed Effe Random Eff			.6031	.0345 .0720
Random Effe Estimate		en Compone	ent Variance	0.0118

Significance among the three respondent groups on the administration importance subscale was found at less than the .05 level. The multiple comparison test indicated that the means of the presidents and the chief financial officers differed. The presidents viewed the administrative functions as being significantly more important to the institution than did the chief financial officers. The means between the academic officers and the presidents were not significantly different at the .05 level and are considered equivalent. Table 28 presents the post hoc procedure data.

Table 28: Importance of Administration: Subscale Post Hoc Data

Mean	Group	Financial	Academic	Executive
3.6078 3.7717 3.8552	Finance Academic Executive	*		

(*) Denotes pairs of groups significantly different at the 0.050 level

The means of the three respondent groups for the business services importance subscales were compared and did not result in significant differences among the groups. Analysis of variance and associated descriptive statistic data are presented in Tables 29 and 30 below.

Table 29: Importance of Business Services: Subscale ANOVA Data

Source	Degrees of Freedom	Sum of Squares	Mean Squares	F Ratio	F Probability
Between Groups Within Groups	2 291	.1009 123.0214	.0505 .4228	.1194	.8875
Total	293	123.1223	.4220		

Table 30: Importance of Business Services: Subscale Descriptive Statistics

Group Type	Count	Mean	Standard Deviation	Standard Error		
Executive Academic Financial	82 102 110	3.5293 3.5490 3.5055	.6482 .6366 .6640	.0716 .0630 .0633		
Total	294	3.5272	.6482	.0378		
Fixed Effect Random Effe			.6502	.0379 .0379		
Random Effects, Estimate of Between Component Variance -0.0038						

The application of the analysis of variance procedure when checking for differences among the means of the three respondent groups on the finance importance subscale resulted in significance at less than the .05 level. Tables 31 and 32 contain the ANOVA and descriptive statistic data and are presented on the following page.

Table 31: Importance of Finance: Subscale ANOVA Data

Source	Degrees of	Sum of	Mean	F	F
	Freedom	Squares	Squares	Ratio	Probability
Between Groups Within Groups Total	2 298 300	2.3041 92.3854 94.6895	1.1521 .3100	3.7161	.0255

Table 32: Importance of Finance: Subscale Descriptive Statistics

Group Type	Count	Mean	Standard Deviation	Standard Error		
1700	Count	nean	DCVIGCIOIL	EITOI		
Executive	83	3.9501	.6091	.0669		
Academic	109	3.9069	. 5692	. 0545		
Financial	109	3.7471	.4997	.0479		
Total	301	3.8609	.5618	.0324		
Fixed Effect		. 5568	.0321 .0624			
Kandom Erre	ECLS			.0024		
Random Effects, Estimate of Between Component Variance 0.0085						

Table 33 presents the post hoc multiple comparison data for the finance importance subscale. The mean of the presidents differed significantly from the mean of the financial officers. The presidents perceived the finance functions to be significantly more important to the institution than did the chief financial officers.

Table 33: Importance of Finance: Subscale Post Hoc Data

Mean	Group	Financial	Academic	Executive
3.7471 3.9069	Finance Academic			
3.9501	Executive	*		

(*) Denotes pairs of groups significantly different at the 0.050 level

No significant differences between the chief academic and the chief financial officers or between the academic officers and the presidents were observed for the finance subscale.

Significant differences at less than the .05 level were also found for among the means of the three respondent types for the general services importance subscale. The analysis of variance and associated descriptive statistic data are presented below in Tables 34 and 35.

Table 34: Importance of General Services: Subscale ANOVA Data

Source	Degrees of	Sum of	Mean	F	F
	Freedom	Squares	Squares	Ratio	Probability
Between Groups Within Groups Total	2 329 331	2.5139 113.8310 116.3449	1.2570 .3460	3.6330	.0275

Table 35: Importance of General Services: Subscale Descriptive Statistics

Group Type	Count	Mean	Standard Deviation	Standard Error		
Executive Academic Financial Total	90 121 121 332	4.0365 3.9079 3.8158 3.9092	.5570 .6177 .5804 .5929	.0587 .0562 .0528 .0325		
Fixed Effect Random Effe	cts	3.3032	. 5882	.0323		
Random Effects, Estimate of Between Component Variance 0.0083						

There was a significant difference in perception of the importance of the general services functions to the institution between the presidents and the chief financial officers. The presidents perceived the general services functions to be significantly more important to the in-

stitution than the financial officers did. There were no significances reported at the .05 level between the president and the academic officer or between the chief financial officers and the chief academic officers. Table 36 presents the post hoc comparison data.

Table 36: Importance of General Services: Subscale Post Hoc Data

Mean	Group	Financial	Academic	Executive
3.8158 3.9079	Finance Academic			
4.0365	Executive	*		

(*) Denotes pairs of groups significantly different at the 0.050 level

No significant differences were observed between the three respondent types when the analysis of variance test was applied to the data services importance subscale. Tables 37 and 38 present the ANOVA and associated descriptive statistic data for the data services subscale.

Table 37: Importance of Data Services Subscale ANOVA Data

Source	Degrees of	Sum of	Mean	F	F
	Freedom	Squares	Squares	Ratio	Probability
Between Groups Within Groups Total	2 331 333	.4383 128.6053 129.0436	.2191 .3885	.5640	. 5695

Table 38: Importance of Data Services:
Subscale Descriptive Statistics

Group Type	Count	Mean	Standard Deviation	Standard Error		
1700	Count	rican	DEVIALION	LITOI		
Executive	90	4.1704	.6246	.0658		
Academic	122	4.2158	.6165	.0558		
Financial	122	4.1311	.6292	.0570		
Total	334	4.1727	.6225	.0341		
 Fixed Effe	cts		. 6233	.0341		
Random Eff	ects			.0341		
Random Effects, Estimate of Between Component Variance -0.0015						

Significance among the means of the responding chief executive, chief academic, and chief financial officers was identified at the .05 level for three job function importance subscales, administration importance, finance importance, and general services importance. In all three instances, the presidents viewed the importance of the subscale functions to their institutions as being significantly more important than the financial officers perceived them to be. No significant differences at the .05 level were observed between the presidents and the academic officers or between the financial officers and the academic officers for any of the six importance subscales.

Survey Part II CFO Organization Rank Percent Distributions

The respondents were asked how the rank of the CFO compared to the rank of the provost and other vice presidents. Figure 1 displays the percent distributions for each respondent type for CFO rank compared to the rank of the provost. Some 5.3 percent of the presidents and 5.4 percent of the financial officers viewed CFO rank as much lower than that

of the provost compared to only 2.4 percent of the academic officers. However, 53.8 percent of the presidents, 55.5 percent of the CAOs, and 51.9 percent of the financial officers viewed the position of the CFO as being somewhat lower in rank than the provost. Fully a third of the presidents and academic officers (35.5 percent and 35.7 percent) viewed the CFO and provost as being equal in rank, while 41.1 percent of the financial officers indicated they were equal in rank to the provost. Of the responding presidents, 3.2 percent indicated CFO rank was somewhat higher than provost rank compared to 5.6 percent of the academic officers

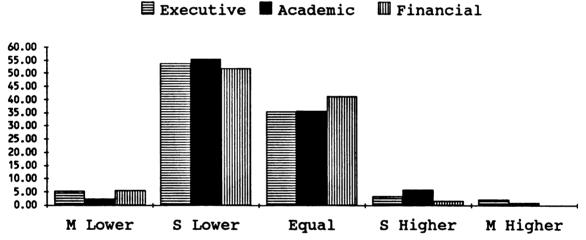


Figure 1: CFO Rank Compared to CAO Rank by Respondent Type

and 1.6 percent of the financial officers. None of the financial officers viewed CFO rank as much higher than provost rank but 2.2 percent of the presidents and .8 percent of the academic officers did.

The percent distributions for financial officer rank compared to the rank of other vice presidents are presented in Figure 2. None of the academic officers and only 3.2 percent of the presidents and 1.6 percent of the financial officers perceived CFO rank to be much lower than the rank of other vice presidents. Of the responding presidents, 9.6

percent viewed CFO rank as somewhat lower than that of the other vice presidents as did 6.4 percent of the academic officers and 10.2 percent of the financial officers.

Fifty percent of the presidents and 52 percent of the financial officers viewed CFO rank as equal to the other vice presidents compared to 59.7 percent of the academic officers. About a third of the presidents considered CFO rank to be somewhat higher than the rank of other vice presidents compared to 26.6 percent of the CAOs and 28.3 percent of the financial officers. Only 4.3 percent of the presidents, 7.3 percent

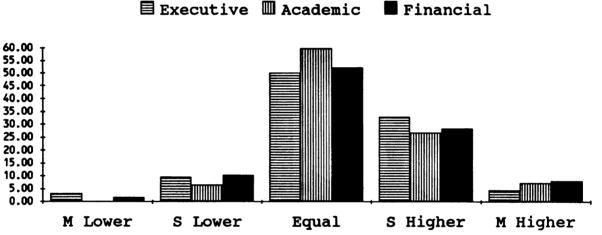


Figure 2: CFO Rank Compared to Rank of Other Vice Presidents by Respondent Type

of the academic officers, and 7.9 percent of the financial officers viewed the CFO as holding a much higher rank than the other vice presidents.

Survey Part II Comparisons of Respondent Types on CFO Rank:

Analysis of variance was computed for both the financial officer rank compared to provost rank item and for the item financial officer rank compared to the organization rank of other vice presidents. Tables 39 and 41 present the ANOVA data for these subscales while Tables 40 and

42 present the associated descriptive statistic information for these subscales. Significance at the .05 level was not observed for either of the rank items.

Table 39: CFO Rank Compared to Provost Rank: Item ANOVA Data

Source	Degrees of	Sum of	Mean	F	F
	Freedom	Squares	Squares	Ratio	Probability
Between Groups Within Groups Total	2 338 340	.5112 154.5210 155.0323	. 2556 . 4572	. 5592	.5722

Table 40: CFO Rank Compared To Provost Rank: Item Descriptive Statistics

Group			Standard	Standard
Type	Count	Mean	Deviation	Error
Executive	92	2.4239	.7447	.0776
Academic	123	2.4634	.6810	.0614
Financial	126	2.3730	6162	.0549
Total	341	2.4194	.6753	.0366
Fixed Effe	cts		.6761	.0366
Random Effe	ects			.0366
Random Effo Estimate		en Compon	ent Variance	-0.0018

Table 41: CFO Rank Compared to Rank of Other Vice Presidents: Item ANOVA Data

Source	Degrees of	Sum of	Mean	F	F
	Freedom	Squares	Squares	Ratio	Probability
Between Groups Within Groups Total	2 338 340	.3995 205.3953 205.7947	.1997 .6077	.3287	.7201

Table 42: CFO Rank Compared to Rank of Other Vice Presidents: Item Descriptive Statistics

Group Type	Count	Mean	Standard Deviation	Standard Error		
Executive Academic Financial Total	92 123 126 341	3.2717 3.3577 3.3095 3.3167	.8134 .7028 .8243	.0848 .0634 .0734 .0421		
Fixed Effe	cts	3.0107	.7795	.0422		
Random Effects, Estimate of Between Component Variance -0.0036						

Again, no differences at the .05 level of significance were found for either the CFO rank compared to provost rank item or the CFO rank compared to the rank of the other vice presidents item.

Survey Part II CFO Board Involvement Subscale Percent Distributions

This section of the survey compared the board activities of the chief financial officer to those of the presidents, provosts, and other vice presidents. Involvement of the chief financial officers with the institution's controlling board is compared to the involvement of the presidents with the institution's controlling board in Table 43.

Eighty-seven percent of the presidents, 91.1 percent of the academic officers, and 93.5 percent of the financial officers perceived the CFO as somewhat less or much less involved with the controlling board compared to the president.

Table 43: Percent Distributions for Comparison of CFO to CEO Board Involvement by Respondent Type

Value	Percent Executive	Percent Academic	Percent Financial
Much Less	39.1	43.9	36.6
Somewhat Less	47.9	47.2	56.9
Equal	11.9	8.1	6.5
Somewhat More	1.1	0.8	0.0
Much More	0.0	0.0	0.0
Total	100.0	100.0	100.0

The involvement of the chief financial officer with the controlling board is compared to the involvement of the provosts with the controlling board in Table 44. One third of the chief academic officers, 26.1 percent of the presidents, and 18.5 percent of the financial officers viewed the CFO as being somewhat less or much less involved with the board than were the academic officers.

Table 44: Percent Distributions for Comparison of CFO to CAO Board Involvement by Respondent Type

Value	Percent Executive	Percent Academic	Percent Financial
Much Less	6.5	8.1	4.8
Somewhat Less	19.6	25.2	13.7
Equal	60.9	54.5	58.9
Somewhat More	13.0	12.2	21.0
Much More	0.0	0.0	1.6
Total	100.0	100.0	100.0

A majority of each of the three respondent types perceived the CFO to be equally as involved in board activities as the provosts. Twenty-one percent of the financial officers perceived the CFO to be somewhat more involved in board activities than the provosts; 13.0 percent of the presidents and 12.2 percent of the academic officers ascribed to this view. Only 1.6 percent of the financial officers and none of the presidents or academic officers perceived CFO board involvement as much more than that of the provosts.

Table 45 presents the percent distributions for financial officer involvement with the controlling board compared to the involvement of other vice presidents with the controlling board. Forty-five percent of the presidents, 41.3 percent of the academic officers, and 34.4 percent of the financial officers indicated that CFO board involvement was equal to that of the other vice presidents. About 46.2 percent of the presidents, 52.1 percent of the academic officers, and 57.4 percent of the financial officers perceived CFO involvement as somewhat more or much more that of the other vice presidents.

Table 45: Percent Distributions for Comparison of CFO to Other Vice Presidents' Board Involvement by Respondent Type

Value	Percent Executive	Percent Academic	Percent Financial
Much Less	5.5	3.3	4.1
Somewhat Less	3.3	3.3	4.1
Equal	45.0	41.3	34.4
Somewhat More	39.6	40.5	41.8
Much More	6.6	11.6	15.6
Total	100.0	100.0	100.0

Selected CFO Only Board Relations Items

Part III of the chief financial officers' questionnaire asked the financial officers a few additional questions about their relationship to their controlling board. Table 46 reflects the percent distributions for these items.

Nineteen percent of the responding financial officers held office on their governing board and five financial officers (3.8 percent) were voting members. Some 23.1 percent of the responding financial officers serve as members of their governing board's finance or similar subcommittee, and 27.7 percent of responding financial officers work directly with

Table 46: Percent Distributions for Selected CFO Board Relations Items

	Υ	es	No		No Response		Total	
Item	No.	Percent	No.	Percent	No.	Percent	No.	Percent
Hold Office	25	19.2*	103	79.2	2	1.5	130	100.0
Vote	5	3.8	56	43.1	69	53.1	130	100.0
Subcommittee	30	23.1	92	70.8	2	6.2	130	100.0
Work w/treas	36	27.7	37	28.5	57	43.8	130	100.0
Downplay	45	34.6	62	47.7	23	17.7	130	100.0

^{*} Of those CFOs who serve as officers, 60 percent (15) serve as board treasurers; .08 percent (2) serve as board secretaries; .04 percent (1) indicated s/he chairs the board; .08 percent (2) serve as "other" types of board officers; and, 20 percent (5) did not respond to this item.

the treasurer of the board. Although 93.5 percent of the responding financial officers perceived CFO board activities to be somewhat or much less than that of the president and only 6.5 percent of the CFOs reported their relationships with the controlling board were equal to or greater than the presidents (Table 11), fully a third, 34.6 percent, of the financial offi-

cers indicated that they at times downplayed the strength of their board relationships.

Survey Part II Comparisons of Respondent Types on CFO Board Relations:

Analysis of variance was calculated for each of the three CFO Board relations subscales. Financial officer involvement with the institution's controlling or governing board compared to the involvement of the president, provost, and other vice presidents with the controlling board was investigated. The means comparison data for CFO board relations compared to the president are presented in Tables 47 and 48. No significant differences were found for this subscale.

Table 47: CFO Board Relations Compared to President: Subscale ANOVA Data

Source	Degrees of	Sum of	Mean	F	F
	Freedom	Squares	Squares	Ratio	Probability
Between Groups Within Groups Total	2 335 337	.3717 132.2527 132.6244	. 1859 . 3943	.4708	.6249

Table 48: CFO Board Relations Compared to President Subscale Descriptive Statistics

Count.	Mean	Standard Deviation	Standard Error
0000	710411	DOT 1401011	21101
92	1.8478	.6712	.0700
123	1.7663	.6392	.0576
123	1.7846	. 5826	.0525
338	1.7951	.6273	.0341
cts		.6283	0342
ects			.0342
ects, of Betwee	en Compone	ent Variance	-0.0019
	123 123 338 ets ects	92 1.8478 123 1.7663 123 1.7846 338 1.7951 ets ects	Count Mean Deviation 92 1.8478 .6712 123 1.7663 .6392 123 1.7846 .5826 338 1.7951 .6273 ets .6283

Tables 49 presents the analysis of variance data for the comparison of financial officer board relations to provost board relations, and Table 49 presents associated descriptive data.

Table 49: CFO Board Relations Compared to Provost: Subscale ANOVA Data

Source	Degrees of	Sum of	Mean	F	F
	Freedom	Squares	Squares	Ratio	Probability
Between Groups Within Groups Total	2 336 338	6.0014 169.5840 175.5854	3.0007 .5047	5.9454	.0029

Table 50: CFO Board Relations Compared to Provost: Subscale Descriptive Statistics

Group			Standard	Standard
Type	Count	Mean	Deviation	Error
Executive	92	2.8152	.6821	.0711
Academic	123	2.7122	.7111	.0641
Financial	124	3.0194	.7300	.0656
Total	339	2.8525	.7208	.0391
Fixed Effects			.7104	.0386
Random Effects				.0951
Random Effe Estimate		en Compon	ent Variance	0.0223

There was a significant difference in perception between the financial officers and the academic officers on this subscale. The financial officers viewed themselves as having stronger relations with the controlling board than the academic officers viewed the CFOs as having. There was no significance found at the .05 level between the president and the academic officers or between the chief financial officers and the presidents. Table 51 presents the post hoc comparison data for this subscale.

Table 51: CFO Board Relations Compared to Provost: Subscale Post Hoc Data

Mean	Group	Academic	Executive	Financial
2.7122 2.8152 3.0194	Academic Executive Financial	*		

(*) Denotes pairs of groups significantly different at the 0.050 level

When the means on the CFO board relations compared to the board relation of the other vice presidents subscale were contrasted, no significant differences were observed. Tables 52 and 53 present the ANOVA and associated descriptive statistic data for this subscale.

Table 52: CFO Board Relations Compared to Other Vice Presidents: Subscale ANOVA Data

Source	Degrees of	Sum of	Mean	F	F
	Freedom	Squares	Squares	Ratio	<u>Probability</u>
Between Groups Within Groups Total	2 331 333	2.9697 225.4480 228.4177	1.4849 .6811	2.1801	.1147

Table 53: CFO Board Relations Compared to Other Vice Presidents: Subscale Descriptive Statistics

Group			Standard	Standard
Type	Count	<u> Mean</u>	<u>Deviation</u>	Error
Executive	91	3.4110	.8156	.0855
Academic	121	3.5107	.7920	.0720
Financial	122	3.6459	.8639	.0782
Total	334	3.5329	.8282	.0453
Fixed Effe	cts		.8353	.0452
Random Effects				.0671
Random Effe	ects.			
		en Compon	ent Variance	0.0073
		·		

Survey Part II Board Relations Summary

In summary, all three respondent types indicated that chief financial involvement with the controlling board was somewhat or much less than that of the president and about equal to that of the provosts. Significantly more of the financial officers indicated the CFO had stronger involvement with the controlling board than did the academic officers, more of whom tended to view the chief financial officer as somewhat less involved with the board than the provosts were. All three respondent groups indicated that the chief financial officers had at least equally strong involvement with the board as did the other vice presidents. Over one half of the academic officers and financial officers reported somewhat more or much more chief financial officer board involvement compared to the board involvement of other vice presidents and 46.2 percent of the presidents shared that perception.

Survey Part II Institutional Relations Subscale Percent Distributions

The questionnaire presented a series of questions about the level of CFO involvement and influence with the executive, decision-making, council of the institution. The percent distributions for CFO influence on the executive council are presented in Figure 3.

None of the financial officers, 2.2 percent of the presidents, and 1.6 percent of the academic officers indicated that the CFO had no influence on the institution's executive council. Some 9.6 percent of the presidents, 9.7 percent of the academic officers, and 10.2 percent of the financial officers viewed CFO influence on the executive council as low. Executive council influence was rated as moderate by 36.6 percent of the presidents and 36.7 percent of the financial officers compared to almost

one half, 49.2 percent, of the academic officers. Some 44.1 percent of the presidents, 36.3 percent of the academic officers, and 46.1 percent of the financial officers viewed CFO executive council influence as high, while 7.5 percent of the presidents, 3.2 percent of the academic officers, and 7 percent of the financial officers perceived CFO council influence as very high.

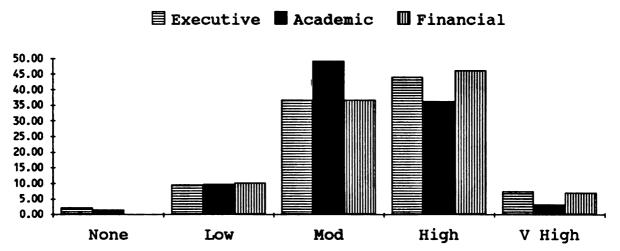


Figure 3: Perceptions of CFO Influence on Executive Council by Respondent Type

Financial officer involvement in academic policy formulation and implementation as perceived by each of the respondent types was explored in Part II of the mail questionnaire. Percent distributions for the academic policy subscale are displayed in Table 54.

Eighty percent of the financial officers, 80.2 percent of the presidents, and 87.3 percent of the academic officers viewed CFO involvement in formulating and implementing academic policy as low or none. Financial

officer academic policy involvement was perceived as moderate by 16.7 percent of the presidents, 18.5 percent of the financial officers, and 9.5 percent of the academic officers.

Table 54: Percent Distributions for the CFO Academic Policy Involvement Subscale by Respondent Type

Value	Percent Executive	Percent Academic	Percent Financial
None	18.8	26.2	10.8
Low	61.4	61.1	69.2
Moderate	16.7	9.5	18.5
High	2.1	3.2	1.5
Very High	1.0	0.0	0.0
Total	100.0	100.0	100.0

The percent distributions for chief financial officer involvement in the formulation and implementation of student services policy is presented in Table 55.

Table 55: Percent Distributions for the CFO Student Services Policy Involvement Subscale by Respondent Type

Value	Percent Executive	Percent Academic	Percent Financial
None	16.7	15.1	8.5
Low	47.9	64.3	58.4
Moderate	29.2	16.6	26.2
High	4.1	3.2	6.9
Very High	2.1	0.8	0.0
Total	100.0	100.0	100.0

CFO involvement in student policy formulation and implementation was perceived as low or none by 64.6 percent of the presidents, 79.4 percent of the academic officers, and 66.9 percent of the financial officers. Moderate involvement in student policy formulation and implementation was indicated by 29.2 percent of the presidents, 16.6 percent of the academic officers, and 26.2 percent of the financial officers.

The percent distributions for CFO business policy involvement are displayed in Table 56. Chief financial officer involvement in business policy formulation and implementation was perceived as high or very high by 88.4 percent of the presidents, 87.2 percent of the academic officers, and 97.7 percent of the financial officers. While 10.5 percent of the presidents and 11.2 percent of the academic officers indicated moderate CFO involvement in business policy formulation and implementation, only 1.5 percent of the financial officers agreed that their involvement was moderate.

Table 56: Percent Distributions for the CFO Business Policy Involvement Subscale by Respondent Type

Value	Percent Executive	Percent Academic	Percent Financial
None	0.0	0.0	0.0
Low	1.1	1.6	0.8
Moderate	10.5	11.2	1.5
High	38.9	44.8	40.8
Very High	49.5	42.4	56.9
Total	100.0	100.0	100.0

The chief financial officers were asked to list by general title, in rank order, those campus individuals they most frequently came into

contact with on a weekly basis. Table 57 presents the ten most often identified responses.

The president and academic officer were ranked as the first and second most frequent CFO weekly campus contacts. The budget director or associate vice president for budget, and the director of physical plant were identified as the third and fourth most frequent CFO weekly campus contacts. The fifth most frequent CFO weekly campus contact was the student affairs vice president. The sixth through ninth ranked CFO weekly campus contacts were the assistant vice president for business and finance, the personnel director, the controller, and the bursar. There was a tie for the tenth-ranked most frequent CFO weekly campus contact between the vice president for development and the director of media relations.

Table 57: CFO Ten Most Frequent Campus Contacts

Rank	Title	Number	Percent
11	President	109	86.5
2	Vice Pres. Academic Affairs/Provost	103	81.7
3	Assoc. Vice President/Dir. Budget	93	73.8
4	Director, Physical Plant	80	63.5
5	Vice President Student Life	59	46.8
6	Assistant Vice President, Bus/Fin.	54	42.9
7	Director, Personnel	53	42.1
8	Controller	52	41.3
9	Bursar	46	36.5
10.5	Vice President Development	25	19.8
10.5	Director, Media Relations	25	19.8

It is interesting to note that the responsibility for four of the finance subscale job functions (budget development, budget control, the borrowing of finances and financial planning, and investment management) as well as the responsibility for the physical plant were earlier identified by the financial officers as the five least delegated CFO job functions. It appears that the chief financial officers keep in close touch with the personnel from these areas.

Survey Part II Comparisons of Respondent Types on Institutional Relations

The responses of the chief executive, the chief academic and the chief financial officers to the institutional relations subscales were also compared using oneway analysis of variance (ANOVA) tests. Where significance at or below the .05 level was found, a post hoc treatment was applied to ascertain where the difference(s) were.

Analysis of variance data for the executive council subscale is presented in Table 58 and associated descriptive statistic data is presented in Table 59. The difference among the three group means was found to be significant at less than the .05 level. The chief financial officers indicated they had more involvement with the institution's major decision-making body than the academic officers thought the CFOs had. Table 60 presents the post hoc comparison data.

Table 58: CFO Executive Decision-Making Council Involvement: Subscale ANOVA Data

Source	Degrees of	Sum of	Mean	F	F
	Freedom	Squares	Squares	Ratio	Probability
Between Groups Within Groups Total	2 342 344	3.8471 190.4763 194.3233	1.9235 .5569	3.4537	.0327

Table 59: CFO Executive Decision-Making Council Involvement: Subscale Descriptive Statistics

Group Type	Count	Mean	Standard Deviation	Standard Error
Executive Academic Financial Total	93 124 128 345	3.4301 3.2500 3.4896 3.3874	.8247 .6914 .7376	.0855 .0621 .0652
Fixed Effe Random Eff	cts		.7463	.0402 .0754
Random Effo Estimate	•	en Compon	ent Variance	0.0120

Table 60: CFO Executive Decision-Making Council Involvement:
Subscale Post Hoc Data

Mean	Group	Academic	Executive	Financial
3.2500 3.4301 3.4896	Academic Executive Financial	*		

(*) Denotes pairs of groups significantly different at the 0.050 level

When the group means for financial officer involvement in academic policy development and implementation were contrasted, significance at less than the .05 level was found. The post hoc procedure indicated that the financial officers differed significantly from the academic officers on this subscale. The financial officers viewed themselves as having more involvement in the formulation and implementation of academic policy than the academic officers perceived the CFOs to have. Table 61, Table 62, and Table 63 present the analysis of variance data, the descriptive statistic data, and the post hoc comparison data for the CFO academic involvement subscale.

Table 61: CFO Academic Policy Involvement: Subscale ANOVA Data

Source	Degrees of	Sum of	Mean	F	F
	Freedom	Squares	Squares	Ratio	Probability
Between Groups Within Groups Total	2 349 351	2.8884 155.4752 158.3636	1.4442	3.2418	.0403

Table 62: CFO Academic Policy Involvement: Subscale Descriptive Statistics

Group Type	Count	Mean	Standard Deviation	Standard Error
Executive Academic Financial Total	96 126 130 352	2.2188 2.0635 2.2692 2.1818	.7138 .7042 .5911 .6717	.0729 .0627 .0518 .0358
Fixed Effe Random Eff			. 6674	.0356 .0646
Random Eff Estimate		en Compone	ent Variance	0.0086

Table 63: CFO Academic Policy Involvement: Subscale Post Hoc Data

Group	Academic	Executive	Financial
Academic Executive	•		
	Academic	Academic Executive	Academic Executive

(*) Denotes pairs of groups significantly different at the 0.050 level

Significance at the .05 level was not found when the group means for the three respondent types were compared on the CFO involvement in student affairs policy formulation and implementation subscale. The analysis of variance data and associated descriptive statistic data are presented in Tables 64 and 65, respectively.

Table 64: CFO Student Affairs Policy Involvement: Subscale ANOVA Data

Source	Degrees of	Sum of	Mean	F	F
	Freedom	Squares	Squares	Ratio	Probability
Between Groups Within Groups Total	2 349 351	3.0793 190.9598 194.0391	1.5397 .5472	2.8139	.0613

Table 65: CFO Student Affairs Policy Involvement: Subscale Descriptive Statistics

Group Type	Count	Mean	Standard Deviation	Standard Error
Type	Count	Mean	DEVIGLION	LITUI
Executive	96	2.4479	.8094	.0826
Academic	126	2.2659	.7119	.0634
Financial	130	2.4692	.7119	.0624
Total	352	2.3906	.7435	.0396
Fixed Effe	cts		.7397	.0394
Random Eff	ects			.0667
Random Eff		on Compon	ant Vauianaa	0 0005
Estimate (or perme	en compone	ent Variance	0.0085

The groups means comparison for the three respondent types for the CFO involvement in business policy subscale found a difference at less than the .05 level of significance. Subsequent post hoc treatment identified a significant difference between the academic officers and the chief financial officers on this subscale. The financial officers perceived themselves as having a higher level of involvement in setting and implementing policy in their own areas than the academic officers viewed the CFOs as having. No significant differences were observed between the financial officers and the presidents or between the academic officers and

the presidents. Analysis of variance data, associated descriptive data, and post hoc comparison data are shown in Tables 66, 67, and 68, respectively.

Table 66: CFO Business Policy Involvement: Subscale ANOVA Data

Source	Degrees of	Sum of	Mean	F	F
	Freedom	Squares	Squares	Ratio	Probability
Between Groups Within Groups Total	2 347 349	3.4495 120.7998 124.2493	1.7247 .3481	4.9543	.0076

Table 67: CFO Business Policy Involvement: Subscale Descriptive Statistics

Group Type	Count	Mean	Standard Deviation	Standard Error		
Executive Academic Financial Total	95 125 130 350	4.4632 4.3960 4.6231 4.4986	.6451 .6391 .4905 .5967	.0662 .0572 .0430 .0319		
Fixed Effe Random Eff		. 5900	.0315			
Random Effects, Estimate of Between Component Variance 0.0119						

Table 68: CFO Business Policy Involvement: Subscale Post Hoc Data

Group	Academic	Executive	Financial
Academic			
Executive			
Financial	*		
	Academic Executive	Academic Executive	Academic Executive

^(*) Denotes pairs of groups significantly different at the 0.050 level

Survey Part II Institutional Relations Summary

In summary, slightly over one half of the presidents and financial officers perceived CFO executive council influence to be high or very high while slightly less than forty percent of the academic officers agreed. Almost one half of the academic officers viewed CFO executive council impact as moderate, compared to fully a third of the presidents and CFOs.

The chief financial officers were perceived by all three respondent types as having little overall impact on academic and student services policy formulation and implementation and as having high or very high impact on the development and implementation of policy in their own unit.

When group means were compared, several differences significant at the .05 level were found. The CFOs perceived themselves as having more involvement with the major decision-making council than the academic officers viewed them as having. The CFOs also viewed themselves as having more involvement with academic and business policy formulation and implementation than the academic officers thought the financial officers had.

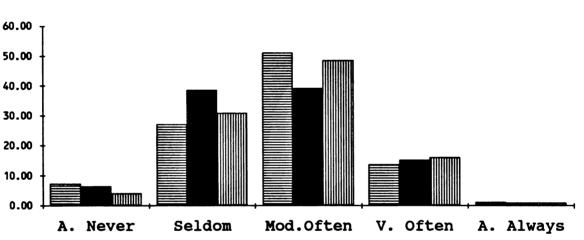
Survey Part II CFO External Relations Subscale Percent Distributions

The questionnaire contained several items which attempted to assess the extent to which CFOs serve as the institutions' representative to outside agencies and groups. The percent distributions for the chief financial officer external relations subscale are exhibited in Figure 4.

Of the responding presidents, 7.3 percent indicated the CFOs were almost never involved in external relations activities compared to 6.4 percent of the academic officers and 4.0 percent of the chief financial officers. Some 27.1 percent of the presidents, 38.4 percent of the academic officers, and 30.9 percent of the chief financial officers perceived

the CFO as seldom being involved with the external relations items.

Slightly over one half, 51 percent, of the presidents perceived the CFOs as being involved in external relations moderately often compared to 39.2 percent of the academic officers and 48.4 percent of the financial officers. The CFOs were perceived as being very often involved in external relations by 13.6 percent of the presidents, 15.2 percent of the academic officers, and 15.9 percent of the financial officers. Only one percent of the presidents, 0.8 percent of the academic officers, and 0.8 percent of the financial officers viewed the CFOs as being almost always



III Financial

■ Executive ■ Academic

Figure 4: Perceptions of CFO External Relations Activities by Respondent Type

involved in external relations. All three respondent types viewed chief financial officer involvement in external relations as occurring moderately often or seldomly.

Survey Part II Comparison of Respondent Types on CFO External Relations

Again, the group means of the chief executive, chief academic, and chief financial officers were compared using the oneway analysis of variance procedure. Significance at the .05 level was not found for the CFO

external relations subscale. The analysis of variance data and associated descriptive data are presented in Table 69 and Table 70, respectively.

Table 69: CFO Involvement in External Relations Activities: Subscale ANOVA Data

Source	Degrees of	Sum of	Mean	F	F
	Freedom	Squares	Squares	Ratio	Probability
Between Groups Within Groups Total	2 344 346	2.5743 197.7455 200.3199	1.2872 .5748	2.2392	.1081

Table 70: CFO Involvement in External Relations: Subscale Descriptive Statistics

Group			Standard	Standard
Type	Count	Mean	<u>Deviation</u>	Error
Executive	96	2.8438	.7550	.0771
Academic	125	2.7500	.7867	.0704
Financial	126	2.9524	.7312	.0651
Total	347	2.8494	.7609	.0408
Fixed Effe	cts		.7582	.0407
Random Effe	ects			.0613
Random Effo Estimate		en Compon	ent Variance	0.0062

Survey Variable Response Patterns

The undergraduate enrollment, graduate enrollment, budget, years served in position, and geographic region variables were compared to the responses of each sample population for the chief financial officer formal rank items and for each of the various subscales. A total of 330 variable comparisons were computed and 30 were significant at the .05 level and are included in this report. Chi square significance at the .05 level was obtained for those items and subscales presented in the following tables

when compared to the independent variables. Table 71 presents the chi square data for business services responsibility by years for the CFOs.

Table 71: Business Services Responsibility by Years Served: Chi Square Data

Count Row Pct Col Pct	0-5Yrs	6-10Yrs	11-15Yrs	16-25Yrs	>25Yrs	Row Total
RBUSSER/financial					_	
Minor/None	28 57.1 52.8	12 24.5 42.9	6.1 20.0	4.1 14.3	8.2 40.0	49 40.8
Shared	11 31.4 20.8	6 17.1 21.4	9 25.7 60.0	5 14.3 35.7	4 11.4 40.0	35 29.2
Major/Complete	14 38.9 26.4	10 27.8 35.7	8.3 20.0	7 19.4 50.0	5.6 20.0	36 30.0
Col Total	53 44.2	28 23.3	15 12.5	14 11.4	10 8.3	120 100.0
Chi Square Value	16.49	854 D).F. 8	Significa	ance .0	3578

Fully two thirds of the responding financial officers across all categories of years served in position indicated a tenure of ten or less years, and the majority or most of them indicated CFO responsibility for business services was minor or none. The majority of financial officers in the 11-15 year range perceived CFO responsibility for business services functions as shared, while CFOs in the 16-25 year range indicated major/complete responsibility for these functions. Chief financial officers with more than 25 years of experience were divided between minor/no and shared CFO responsibility for business services functions.

There were three chi square significances at the .05 level for the region variable. The region variable appeared to impact the presidents' and academic officers' responses for the business services responsibility

functions and the presidents' responses for the finance responsibility functions.

Table 72: Business Services Responsibility by Region: Chi Square Data

Count Row Pct Col Pct	Northeast	South	Midwest	West	Row Total
RBUSSER/executive Minor/None	7 17.1 87.5	9 22.0 29.0	17 41.5 58.6	8 19.5 44.4	41 47.7
Shared		13 46.4 41.9	7 25.0 24.1	8 28.6 44.4	28 32.6
Major/Complete	1 5.9 12.5	9 52.9 29.0	5 29.4 17.2	2 11.8 11.1	17 19.8
Col Total	8 9.3	31 36.0	29 33.7	18 20.9	86 100.0
Chi Square Value	12.87989	D.F.	6 Sigr	nificance	.04498

The presidents differed by region in their perception of the level of financial officer responsibility for business services functions. The majority of presidents from the northeast and midwest regions indicated that the CFO level of responsibility for business services functions as minor/none, whereas the responses of presidents from the western region were divided between minor or none and shared. The presidents from the south differed in that most of their responses indicated shared financial officer responsibility for business services while their remaining responses were evenly distributed among the minor or none and major or complete responsibility levels.

Table 73 presents the chi square data for the business services responsibility subscale by region for the academic officers. The level

of CFO responsibility for business services differed among the academic officers from various regions. The majority of academic officers from the midwest, northeast, and west indicated minor or none as the CFO level of

Table 73: Business Services Responsibility by Region: Chi Square Data

<u>.</u>	J Oqua. J				
Count Row Pct Col Pct	Northeast	South	Midwest	West	Row Total
RBUSSER/academic					
Minor/None	7	12	20	10	49
Titliot / None	14.3	24.5	40.8	20.4	45.8
	50.0	30.0	58.8	52.6	43.6
Shared	4	13	6	9	32
	12.5	40.6	18.8	28.1	29.9
	28.6	32.5	17.6	47.4	
Major/Complete	3	15	8		26
	11.5	57.7	30.8		24.3
	21.4	37.5	23.5		
Col Total	14	40	34	19	107
	13.1	37.4	31.8	17.8	100.0
Chi Square Value	14.97276	D.F.	6 Sigr	nificance	.02047

responsibility for business services, while the responses from academic officers from the south were fairly evenly divided across the responsibility levels. Some 47.4 percent of academic officers from the west, however, indicated shared CFO responsibility for business services.

Table 74 presents the chi square data for the presidents for the finance subscale by region. The region variable also appeared to influence somewhat the presidents' perceptions of CFO level of responsibility for the finance functions identified in the questionnaire. CFO finance major/complete responsibility level was either the majority or the most frequent response of the presidents in the northeast, south, and midwest.

Most of the replies of responding presidents from the west, however, were divided between shared and major or complete CFO responsibility for the finance functions.

Table 74: Finance Responsibility by Region: Chi Square Data

Count Row Pct Col Pct	Northeast	South	Midwest	West	Row Total
RFINANCE/executive					
Minor/None	2	1	3	2	8
	25.0	12.5	37.5	25.0	9.3
	28.6	3.0	10.3	11.8	
Shared	2	4	9	8	23
	8.7	17.4	39.1	34.8	26.7
	28.6	12.1	31.0	47.1	
Major/Complete	3	28	17	7	55
	5.5	50.9	30.9	12.7	64.0
	42.9	84.8	58.6	41.2	
Col Total	7	33	29	17	86
	8.1	38.4	33.7	19.8	100.0
Chi Square Value	14.05229	D.F.	6 Sign	ificance	.02906

Chi square significance at the .05 level was obtained for four subscales on the budget variable, three for the presidents and one for the academic officers. Table 75 presents the chi square data for the presidents on the CFO board relations compared to the provost subscale by the budget variable.

The majority of presidents at institutions with budgets of \$600 million or less indicated that provost and CFO board involvement was equal. However, a third of the presidents at institutions budgets in the \$301-600 million category reported that the chief financial officers had more involvement with the board than did the provosts, while the

the presidents with budgets greater than \$600 million divided between equal and less CFO board involvement.

Table 75: CFO Board Relations Compared to Provost by Budget: Chi Square Data

Count Row Pct	Budge	et in Mill	ions		Row
Col Pct	0-100	101-300	301-600	>600	Total
CFOVCAO/executive Somewhat/Much Less	10 41.7 30.3	9 37.5 25.0	8.3 14.3	3 12.5 33.3	24 26.1
Equal	23 41.1 69.7	22 39.3 61.1	7 12.5 50.0	7.1 44.4	56 60.9
Somewhat/Much More		5 41.7 13.9	5 41.7 35.7	16.7 22.2	12 13.0
Col Total	33 35.9	36 39.1	14 15.2	9.8	92 100.0
Chi Square Value	12.68513	D.F.	6 Sigr	nificance	.04832

Table 76 presents the chi square data for the CFO board relations compared to other vice presidents subscale by budget. When comparing CFO board involvement with the board involvement of the other vice presidents, there was a tendency for the chief financial officer to be perceived by the presidents as having more board involvement than the other vice presidents as budget levels increased. The majority of presidents with budgets of \$100 million or less indicated equal involvement; most of the presidents with budgets of \$101-300 million were divided between equal and more CFO involvement compared to the other vice presidents; and, the majority of presidents in the categories above \$300 million indicated the financial officer more involvement with the board than the other vice presidents.

Table 76: CFO Board Relations Compared to Other Vice Presidents by Budget: Chi Square Data

Count Row Pct	Budge	t in Milli	ions		Row
Col Pct	0-100	101-300	301-600	>600	Total
CFOVSVPS/executive					
Somewhat/Much	3	2	1 1	2	8
Less	37.5 9.1	25.0 5.7	12.5 7.1	25.0	8.8
Equal	20	17	3	1	41
	48.8	41.5	7.3	2.4	45.1
	60.6	48.6	21.4	11.1	
Somewhat/Much	10	16	10	6	42
More	23.8	38.1	23.8	14.3	46.2
	30.3	45.7	71.4	66.7	
Col Total	33	35	14	9	91
	36.3	38.5	15.4	9.9	100.0
Chi Square Value	12.72990	D.F.	6 Sig	nificance	.04753

Table 77 presents the chi square data for administration responsibility by budget for the financial officers. The chief financial officers

Table 77: Administration Responsibility by Budget: Chi Square Data

Count	on oqual	Julu			
Row Pct	Ві	Row			
Col Pct	0-100	101-300	301-600	>600	Total
RADMIN/finance Minor/None	12 30.0 26.1	15 37.5 31.9	8 20.0 42.1	5 12.5 41.7	40 32.3
Shared	16 29.1 34.8	23 41.8 48.9	11 20.0 57.9	5 9.1 41.7	55 44.4
Major/Complete	18 62.1 39.1	9 31.0 19.1		2 6.9 16.4	29 23.4
Col Total	46 37.1	47 37.9	19 15.3	12 9.7	124 100.0
Chi Square Value	13.33400	D.F.	6 Sig	nificance	.03803

with institutional budgets of \$100 million or less were evenly dispersed along the no-minor-shared-major-complete response scale, whereas most of the CFOs in the \$101-300 million and the majority of CFOs in the \$301-600 million categories indicated shared financial officer responsibility for administration functions. The financial officers with budgets larger than \$600 divided evenly between the shared and minor/none categories. Overall, there were fewer major/complete responses as budgets increased.

Table 78 presents the chi square data for the administration importance subscale for CAOs by budget. A majority of CAOs in all categories except the \$301-600 million range indicated the administration functions were of high or critical importance to the institution; the CAOs in that range, however, indicated these functions were of medium importance.

Table 78: Administration Importance by Budget: Chi Square Data

Count Row Pct Col Pct	0-100	101-300	301-600	>600	Row Total
IADMIN/academic Minor/No	2 66.7 4.3		33.3 6.3		3 2.6
Medium	16 39.0 34.8	10 24.4 24.4	12 29.3 75.0	7.3 27.3	41 36.0
High/Critical	28 40.0 60.9	31 44.3 75.6	3 4.3 18.8	8 11.4 72.7	70 61.4
Col Total	46 40.4	41 36.0	16 14.0	11 9.6	114 100.0
Chi Square Value	17.55442	D.F.	6 Sign	ificance	.00745

Chi square significance at the .05 level was obtained for the presidents for the administrative responsibility subscale on the undergraduate

enrollment variable. Tables 79 presents the chi square data for this subscale for the executive officers.

Table 79: Administration Responsibility by Undergraduate Enrollment:
Count

Row Pct Col Pct	<15,000	16-20,000	>20,000	Row Total	
RADMIN/executive Minor/None	13 43.3 25.0	14 46.7 53.8	3 10.0 30.0	30 34.1	
Shared	26 66.7 50.0	12 30.8 46.2	2.6 10.0	39 44.3	
Major/Complete	13 68.4 25.0		6 31.6 60.0	19 21.6	
Col Total	52 59.1	88 29.5	10 11.4	88 100.0	
Chi Caussa Valua	20 06040	חר	A Cia	.ifiaa	00

Chi Square Value 20.06849 D.F. 4 Significance .00048

One half of the presidents at institutions with undergraduate enrollments of less than 15,000 indicated chief financial officer responsibility for administrative functions was shared. Although 46.2 percent of the presidents at institutions with an undergraduate enrollment range of 16-20,000 agreed that financial officer responsibility for administration functions were shared, the majority (53.8 percent) viewed the financial officer responsibility level for the administrative functions as minor or none. Conversely, the majority response of the presidents at institutions with an undergraduate enrollment exceeding 20,000 was major or complete chief financial officer responsibility for administration job functions.

Table 80 presents the chi square data for the presidents on the general services responsibility subscale by undergraduate enrollment. The

presidents at institution with undergraduate enrollments of 16-20,000 divided their responses between minor/none and major/complete whereas a large majority of presidents at institutions with less undergraduate enrollments of less than 15,000 and greater than 20,000 indicated major or complete CFO responsibility for general services functions.

Table 80: General Services Responsibility by Undergraduate Enrollment: Chi Square Data

Count Row Pct Col Pct	<15,000	16-20,000	>20,000	Row Total
RADMIN/executive Minor/None		12 42.9 46.2	2 7.1 18.2	28 29.2
Shared	2 40.0 3.4	3 60.0 11.5		5.2
Major/Complete	43 68.3 72.9	11 17.5 42.3	9 14.3 81.8	63 65.6
Col Total	59 61.5	26 27.1	22 11.5	96 100.0

Chi Square Value

9.64044

D.F. 4

Significance .04694

Chi square data for the presidents on administration responsibility by graduate enrollment is presented in Table 81. The majority of presidents at institutions with graduate enrollments less than 3,000 indicated shared CFO responsibility for these functions. Presidents at institutions with graduate enrollments in the 4-6,000 range divided between shared and minor/none, while the majority of presidents at institutions with graduate enrollments of 7,000 or more indicated minor or no CFO responsibility for administration functions. CFO responsibility for administration functions appears to decrease as size of graduate programs increases.

Table 81: Administration Responsibility by Graduate Enrollment: Chi Square Data

Count Row Pct Col Pct	0-3,000	4-6,000	7,000+	Row Total
RADMIN/executive	12	12	6	30
Minor/None	12	12	6	- M
	40.0	40.0	20.0	34.1
	22.6	46.2	66.7	
Shared	30	9		39
	76.9	23.1		44.3
	56.6	34.6		
Major/Complete	11	5	3	19
.	57.9	26.3	15.8	21.6
	20.8	19.2	33.3	
Col Total	53	26	9	88
	60.2	29.5	10.2	100.0

Chi Square Value 12.95428 D.F. 4 Significance .01150

Table 82 presents the chi square data for the presidents on the general services responsibility subscale by graduate enrollment. Very few responding presidents in any graduate enrollment category indicated that CFO responsibility for general services functions was shared. A large majority of presidents at institutions with graduate programs of less than 3,000 reported major/complete CFO responsibility while those with graduate program enrollments of 4-6,000 split between the major/complete and minor/none categories. A majority of presidents of institutions with graduate enrollments over 7,000 indicated minor/no financial officer responsibility for general services functions, but a substantial number, 45.5 percent, contradicted that perception with their indication of major/complete as the level of CFO responsibility for general services.

Table 82: General Services Responsibility by Graduate Enrollment: Chi Square Data

Count Row Pct Col Pct	0-3,000	4-6,000	7,000+	Row Total	
RGENSER/executive	V P				
Minor/None	12	10	6	28	
,	42.9 20.3	35.7 38.5	21.4 54.5	29.2	
Shared	2	4		6	
	33.3	66.7		6.3	
	3.4	15.4			
Major/Complete	45	12	5	62	
	72.6	19.4	8.1	64.6	
	76.3	46.2	45.5		
Col Total	59	26	11	96	
	61.5	27.1	11.5	100.0	
Chi Square Valu	e 12.945	06 D.F.	4 Sign	nificance	.01155

Chi square significance at the .05 level was also obtained for the graduate enrollment variable for the financial officers on the business services responsibility subscale and the data services responsibility subscales.

Table 83 presents the chi square data for the financial officers on the business services responsibility subscale for graduate enrollment. The financial officers at institutions with graduate enrollments of 3,000 or less were divided in perceptions of CFO responsibility for business services whereas the majority of financial officers at the large and very large graduate institutions viewed CFO responsibility for these functions as minor or none.

Table 83: Business Services Responsibility by Graduate Enrollment: Chi Square Data

Count Row Pct				Row	
Col Pct	0-3,000	4-6,000	7,000+	_ Total	
 RBUSSER/financia	1				
Minor/None	21	19	9	49	
	42.9	38.8	18.4	40.8	
	29.6	55.9	60.0		
Shared	23	7	5	35	
	65.7	20.0	14.3	29.2	
	32.4	20.6	33.3		
Major/Complete	27	8	1	36	
	75.0	22.2	2.8	30.0	
	38.0	23.5	6.7		
Col Total	71	34	15		
	59.2	28.3	12.5	100.0	
Chi Square Value	11.36	097 D.F	. 4 Sia	nificance	.02

Chi Square Value 11.36097 D.F. 4 Significance .02279

Table 84: Data Services Responsibility by Graduate Enrollment: Chi Square Data

Count Row Pct	0 2 000	4.6.000	7.000	Row
Col Pct	0-3,000	4-6,000	7,000+	_¬ Total
RDATASER/financi	ial			
Minor/None	21	22	8	51
·	41.2	43.1	15.7	39.2
	27.3	61.1	47.1	
Shared	18	5	4	27
	66.7	18.5	14.8	20.8
	23.4	13.9	23.5	
Major/Complete	38	0	5	52
	73.1	17.3	9.6	40.0
	49.4	25.0	29.4	
Col Total	77	36	17	」 130
	59.2	27.7	13.1	100.0

Table 84 presents the chi square data for the financial officers on the data services responsibility subscale for the graduate enrollment

Chi Square Value 12.78493 D.F. 4 Significance .01238

variable. Most financial officers at institutions with large and very large graduate enrollments indicated minor/no financial officer responsibility for data services while most financial officers at institutions with graduate enrollments of 3,000 or less indicated major/complete CFO responsibility for the data services functions.

Chi square significance at the .05 level was also obtained for several other subscales/items. These significance were interpreted as resulting from an overwhelming response to and/or a corresponding shortage or, in a few cases, a complete absence of, responses to a dependent variable level across all categories of the independent variable. For example, no chief financial officer in any budget or undergraduate enrollment category indicated the CFO had more involvement with the board than did the presidents; yet a strong majority in each instance reported financial officer involvement with the controlling board was less than that of the presidents. Such concentrated responses left numerous cells with much higher and/or much lower than expected cell frequencies, but did not appear to result in a pattern of responses which could be attributed to the uniqueness of the independent variable. The chi square tables for these cases are located in Appendix H.

Summary of Variable Response Patterns

Chief financial officer perceptions of responsibility for business services by years served in position were concentrated in the 0-10 year category. About two thirds of the financial officers were in this range and most or a majority of them indicated minor or no CFO responsibility for these functions.

There were several differences in response patterns by the geographic region variable. CFO responsibility for business services functions were reported by presidents from the northeast, midwest, and west as minor/none while presidents in the south were evenly divided across the responsibility levels. The presidents' response patterns for the finance functions by geographic region indicated that these functions were perceived as major/complete CFO responsibilities by presidents in the northeast, south, and midwest. However, presidents in the west divided between shared and major/complete CFO responsibility for finance functions.

On the CFO board relations compared to provost board relations subscale, the majority or most presidents at all budget levels indicated equal board involvement; although fully a third of presidents in the \$301-600 category indicated more CFO involvement with the board than provost involvement with the board, while a third of the presidents in the greater than \$600 million budget category reported less CFO board involvement compared to the board involvement of the provosts. The response patterns of the presidents by budget on the CFO board involvement compared to the other vice presidents subscale demonstrated a tendency for more rather than equal CFO board involvement as budget levels increased. The response patterns of the academic officers varied by budget level on the administration importance subscale. The majority of academic officers in all budget categories indicated high or critical administration function importance except those in the \$301-600 million category who reported medium importance.

The presidents' response pattern to CFO responsibility for administration functions by undergraduate enrollment was mixed. At institutions with undergraduate enrollments of less than 15,000, the presidents

reported shared; for the 16-20,000 category the majority of the presidents indicated minor/no, but forty-six percent indicated shared; and a majority of presidents at institutions with undergraduate enrollments greater than 20,000 indicated major/complete chief financial officer responsibility for administration functions.

As graduate enrollment increased, fewer presidents reported major/complete CFO responsibility for general services functions and more presidents indicated minor/no CFO responsibility for these functions. As size of graduate enrollment increased, financial officers also moved from reporting CFO responsibility for business services functions as major/complete and shared to minor/no responsibility. The financial officers also reported less CFO responsibility for the data services subscale as graduate enrollment increased.

The next chapter will examine the findings of this study in light of the observations discussed in the earlier review of the literature on the chief financial officer in large, four-year public institutions of higher education in particular as well as in other types of institutions of higher education. Additionally, the expected findings identified in the third chapter will be compared to the actual findings presented in this chapter, and suggestions for future research will be proposed.

CHAPTER FIVE

SUMMARY, IMPLICATIONS, AND RECOMMENDATIONS

The study was designed to enlarge the existing profile of the chief financial officer at large, four-year public institutions of higher education. Unlike previous research efforts addressing the chief financial officer position at such colleges and universities, which were limited to the self report of the financial officers, this study sought the perceptions of the chief executive officers (presidents, chancellors) and the chief academic officers (provosts, vice presidents for academic affairs) in addition to those of the chief financial officers. To attain this objective, a mail questionnaire was developed and sent to the chief executive, chief academic, and chief financial officer at each of the 190 colleges and universities identified in the 1988 Higher Education Directory as having a student head count enrollment of at least 10,000.

The first part of the study focused on verification of previous reports in the literature which noted position-specific financial officer responsibility for various job function areas. In addition, this portion of the investigation examined the extent of consensus in the perceptions which those in three prominent university positions have concerning the importance of the those job functions to the university. The intent was to gain information in two areas. There was interest in establishing which of the job function areas were considered by all three respondent types as being concentrated solely and nonsubstitutably with the chief

financial officer and, in addition, with determining which were perceived as being of high or critical importance to the institution.

The second part of the study focused on several broader responsibilities of the chief financial officer and attempted to obtain some clear idea of the level of organizational involvement and influence which chief financial officers have, as a group, in large, four-year public colleges and universities. Information about the formal organizational rank of the chief financial officer, that individual's relationship to the institution's controlling board, involvement in the organization's executive decision-making activities, impact on the formulation and implementation of policy in other divisions of the institution, and involvement in the organization's external relations was gathered.

Job Function Responsibility and Importance

The accountancy, finance, and general services operations were perceived by the majority of subjects in each respondent group as being the major or complete responsibility of the chief financial officer. Further, the CFOs viewed themselves as being significantly more responsible for accountancy functions than the academic officers viewed the CFOs as being. This outcome is in overall agreement with the findings in Jenkins's 1983 study of the financial officer at large, public institutions of higher education which reported complete or major CFO responsibility for various accountancy, finance, and general services functions. The Hungerman small college research, the Whims community college research, the Javidpour report, and the Keller study of assorted post secondary institutions of education also indicated that many of the accountancy, finance, and general services functions were the major, complete, or primary responsibility of

the chief financial officer.

A detailed review of the items within the subscales revealed that the subscale findings held for all items within the accountancy and general services subscales. That is, the findings for these subscales and for the items within them were consistent with the majority opinion of all respondent types.

Within the finance subscale, all items but one were perceived by a majority of respondents in all three groups as major or complete CFO responsibilities. The majority of the presidents were divided between those who viewed budget development as a major or complete financial officer responsibility and the slightly smaller group of presidents who viewed these functions as a shared CFO responsibility. However, the academic officers perceived the financial officers to be less responsible for the development of the institution's budget than the CFOs perceived themselves to be. Almost one half of the academic officers indicated that budget development was a responsibility which the financial officers shared. The difference between the academic officers and the financial officers on this item was found to be significant at the .05 level. The difference between the financial officers and the presidents and between the academic officers and the presidents were not statistically significant.

The differing perceptions of the academic and financial officers at large, four-year public institutions of higher education about budget development is comparable to the differences between the perceptions of the presidents and financial officers reported by both Seetodeh in his study of 200 randomly selected presidents and CFOs at public and private, large and small higher education institutions and by Whims who reported the differences in perception regarding responsibility for financial

policy were a significant area of disagreement in his study of Michigan community colleges.

The administration subscale was found to contain several inconsistent job function items. Although a majority was not realized for any of the responding officer types, the administration subscale classification attained for most of each respondent group in this study was shared rather than absolute chief financial officer responsibility. This overall finding differed from the reports of other researchers cited earlier on some of the administration subscale items. A majority of each respondent group perceived the administration functions to be highly or critically important, but the presidents differed significantly from the financial officers in that they viewed these functions as being more important to the institution than did the CFOs.

The administrative subscale contained eight items based upon both the CUBA classification and the writings of other researchers in the field. As Table 22 illustrates, the nonacademic labor relations, the nonacademic personnel administration, and the risk management and insurance items were perceived to be major or complete responsibilities of the chief financial officer by a majority of all three respondent types. This is in concert with the findings of Jenkins, Hungerman, Javidpour, Keller and Whims.

While Jenkins's responding financial officers reported that financial officers shared responsibility for institutional research, the majority of all three respondent types in this study viewed financial officers as having only minor or no responsibility for this area. Chief financial officer responsibility for this item may be diminishing, or perhaps inclusion of two additional respondent groups had an impact on CFO responses.

Table 85: Percent Distributions for CFO Administration Subscale Items*

		Exect	Executive**			Acade	Academic**			Finan	Financial**	
Item	Minor/ None	Shared	linor/ None Shared Complete Total	Total	Minor/ None	Shared	Minor/ Major/ None Shared Complete Total	Total	Minor/ None	Shared	Minor/ Major/ None Shared Complete Total	Total
Instnl. Res.	9.99	14.6	66.6 14.6 18.8 100.0 75.6 15.0 9.4 100.0	100.0	75.6	15.0	9.4	100.0	67.0	15.4	67.0 15.4 17.7 100.0	100.0
Lab. Rel.(acad.)	83.9	9.3	83.9 9.3 6.8 100.0 80.5 13.0	100.0	80.5	13.0		6.5 100.0	77.5	17.8	77.5 17.8 4.7 100.0	100.0
Lab. Rel.(nonacad) 34.7 13.0 52.2 99.9 26.6 19.4 54.0 100.0 36.1 10.0 53.8	34.7	13.0	52.2	6.66	26.6	19.4	54.0	100.0	36.1	10.0	53.8	99.9
Legal Management	74.0	13.5	74.0 13.5 12.5 100.0 58.4 28.0 13.6 100.0 64.1 21.9 14.0 100.0	100.0	58.4	28.0	13.6	100.0	64.1	21.9	14.0	100.0
Mgmt. Info. Sys.	30.5	32.6	30.5 32.6 36.9 100.0 36.5 40.5 23.0 100.0 19.4 43.4 37.2 100.0	100.0	36.5	40.5	23.0	100.0	19.4	43.4	37.2	100.0
Nonacad. Per. Adm. 26.3 8.4	26.3	8.4	65.2	99.9	22.1	14.2	65.2 99.9 22.1 14.2 63.8 100.1 24.1 6.2	100.1	24.1	6.2	8.69	100.1
Risk Mgmt.& Insur. 18.1 14.9 67.0 100.0 14.6 13.7 71.8 100.1 19.4 9.3 71.3 100.0	18.1	14.9	0.79	100.0	14.6	13.7	71.8	100.1	19.4	9.3	71.3	100.0
Space Management	38.9	27.4	38.9 27.4 33.6 99.9 29.9 49.6 20.5 100.0 35.3 30.0 34.6	99.9	29.9	49.6	20.5	100.0	35.3	30.0	34.6	99.9

* Majority perceptions are shaded ** Totals equal 99.9-101.1 percent

Although both Hungerman, in his research of small private and public colleges, and Javidpour, in his study of private and public medium and large institutions, reported major or complete financial officer responsibility for legal management, the majority of all three respondent types in this study reported CFO responsibility as minor or none for legal management and for academic labor relations. This difference in findings may have to do with the inclusion of private institutions and with the size of institutions in the Hungerman and Javidpour studies. Responses to the management information systems item and to the space management item were divided within each of the respondent groups and a majority opinion was not obtained.

Most, but not a majority, of the responding presidents, academic officers and financial officers indicated that CFOs have minor or no responsibility for the business services job functions. This finding is not in accordance with the findings of Jenkins for large colleges and universities, of Hungerman for small private and public colleges, of Whims for community colleges, or of Javidpour and Keller for a mixture of types of higher education institutions. These investigators reported major, complete, or primary CFO responsibility for those business services functions included in their respective studies: bookstore, food services, housing (Jenkins, (Hungerman, Keller, and Whims) and press/copy centers and university center (Keller).

All items within the business services subscale, except the bookstore item, were perceived by a majority or most of the respondents as minor or not a CFO responsibility. One half of the academic officers viewed the bookstore function as a major or complete responsibility of the financial officer. However, the presidents and financial officers were

divided in their perception of CFO responsibility for the bookstore. Some 44.2 percent of the presidents indicated the bookstore function was minor or not a CFO responsibility, and another 42.1 percent of the presidents viewed this function as the major or complete responsibility of the financial officer. Financial officer perception of CFO responsibility for the bookstore function was 44.9 percent major or complete and 41.6 percent minor or none. The differences among the responding presidents, academic officers, and financial officers on the bookstore item were not significant at the .05 level. Chief financial officer responsibility for the data services subscale functions was viewed by most, but not a majority, of the presidents and academic officers as minor or none, while the financial officers were almost evenly divided between those who perceived financial officer responsibility for data services as either minor/none or major/complete. The data services subscale which included three items, academic and non-academic data processing and telecommunications, had been derived ad hoc as a result of earlier reliability analysis.

The responses to the individual data services items indicated that chief financial officer responsibility for the academic data processing function was viewed by a majority of each respondent group as minor/none, while most, but not a majority, of each respondent group perceived nonacademic data services to be the major or complete responsibility of the financial officer. These data are in agreement with Hungerman's findings for CFOs in small colleges. Data processing was not classified in any of the resulting designated responsibility level categories reported by Jenkins.

The presidents and academic officers held divided perceptions about the level of CFO responsibility for telecommunications, with a full third indicating both minor/none and major/complete CFO responsibility. However,

one half of the CFOs reported major or complete responsibility for telecommunications, while one third reported minor or no CFO responsibility for telecommunications. The chief financial officers reported payroll, accounting, bursar/ cashier, reporting, purchasing, and transportation as the job functions they are least personally involved in. These more routine activities are the most delegated of the CFO job function responsibilities, and the chief financial officers appear to control these areas through their subordinates. However, several of the finance subscale functions were identified by the financial officers as areas in which they were most personally involved--those which they least often delegated to These functions contrast to the CFO most delegated functions in that they are not routine and in that they require policy decisions to determine where the organization's money goes, how it is used, for what purposes, and whether it was used as designated. These functions also include investing the organization's money, financial planning, and borrowing finances (bonding, etc.) when necessary or advantageous.

Mintzberg's notion of organizational impact based upon control of decisions and actions included control of operation(s) critical to the organization. While this study was successful in verifying the areas of operation controlled by the CFOs, success in identifying those items which were critical to the operation of the organization is less clear. The majority of each of the three respondent types viewed the importance of all the identified job functions as being highly or critically important to the institution, with the single exception of the business services job functions which were perceived to be of medium institutional importance by a majority of the responding presidents. The comparison of financial officer responsibility levels to the institutional importance of the

functional areas yielded only moderate and weak positive correlations which were significant at the .05 level. The strongest correlations were observed in both the accountancy and finance categories. Accountancy responsibility and importance correlations for the presidents and finance officers were .4371 and .3936 respectively, and the finance correlations for the presidents, provosts, and financial officers were .4521, .3752, and .4391 respectively. However, the high or critical institutional importance response patterns may simply be an affirmation of the selection of job function responsibilities, and a ranking of these functions within the high or critical categories would serve better the ordering of the importance of these items.

Overall, major or complete CFO responsibility for the accountancy, finance and general services functions was indicated by a majority or most of the chief executive and the chief financial officers. The academic officers agreed with these perceptions, with the exception that they perceived the budget development function to be shared. The findings were in accord with the conclusions of several other researchers. The perception that the CFO responsibility level for business services is minor or none is a finding which differed from the cited literature. All business services subscale items except the bookstore function were viewed by a majority or most of the three respondent types as minor or not a CFO responsibility.

The administration subscale findings were obscured by the contradictory responses to several of the individual items contained within that subscale (the financial officer is perceived to have major or complete responsibility for nonacademic labor relations, nonacademic personnel administration, and risk management and insurance functions but to have minor or no responsibility for institutional research, academic labor relations, and legal management functions). The chief financial officer is clearly perceived to have minor or no responsibility for academic data processing, while most of each respondent group perceived nonacademic data processing as a major or complete CFO responsibility. However, no clear consensus regarding the financial officer responsibility level for the management information services, space management, and telecommunications functions was found in the responses of the presidents, academic officers, and financial officers at large, four-year public colleges and universities. Table 86 presents a summary of the findings of this and other studies of the chief financial officer job function responsibilities.

Table 86: CFO Job Function Responsibility Research Summary*

Job Function	Ringguist	Jenkins	Hungerman	Javidpour	Keller	Whims
Accounting	MC	С	MC	MC	MC	Р
Bursar/Cashier	MC	С			MC	
Internal Control	MC	С	MC	MC	MC	
Payroll	MC	С	MC	MC	MC	Р
Labor Relations (academic)	MN					
Labor Relations (nonacademic)	MC					Р
Legal Management	MN		MC	MC		
Mgt.Info. Systems	INC					
Institutional Research	MN	S				
Personnel Admin. (nonacademic)	MC	M	MC	MC	MC	Р
Risk Management/ Insurance	MC	С	MC	MC	MC	Р
Space Management	INC					
Bookstore	INC	M	MC		MC	Р

Table 86: CFO Job Function Responsibility Research Summary* (Cont'd.)

Job						
	Ringquist	Jenkins	Hungerman	Javidpour	Keller	Whims
Food Services	MN	M	MC		MC	Р
Housing	MN	M	MC		MC	Р
Press/Copy Centers	MN				MC	
University Center	MN				MC	
Data Processing (academic)	MN	INC	MN			
Data Processing (nonacademic)	MC	INC	MC			
Telecommunications	INC					
Borrowing Finances	MC					Р
Budget Control	MC	С	MC	MC	MC	Р
Budget Development	INC	С	MC	MC	MC	Р
Cost Information Determination	MC					
Economic Development /Real Estate	MC					
Indirect Cost Rate Establishment	MC	С				
Investment Mgmt.	MC	С	MC		MC	Р
Campus Mail	MÇ					
Facility Planning/ Construction	MÇ	M			MC	
Facility Operation/ Maintenance	MC					Р
Physical Plant	MC	С	MC	MC	MC	
Purchasing	MC	С	MC	MC	MC	Р
Safety and Security	MC	М	MC		MC	Р
Transportation	MC					Р

^{*} MN = minor or no responsibility
S = shared responsibility
MC = major or complete responsibility
P = primary responsibility
INC = inconclusive findings

Rank, Board, Institution and External Relations

A majority of the presidents, academic officers and financial officers reported CFO rank as somewhat lower than the rank of the provosts while at least a third of all respondent groups reported CFO rank as equal to provost rank. This is in agreement with the 1985 Jenkins report concerning financial officers at large, public institutions of higher education, but differs from Hungerman's study of small colleges in which two thirds of the responding financial officers reported formal rank equal to that of the academic officer.

The majority of presidents, academic officers, and financial officers agreed that CFO rank was equal to that of the other vice presidents, while one third of the presidents and fully a fourth of the academic officers and financial officers viewed CFO rank as somewhat higher than the rank of the other vice presidents. The financial officers do not appear to be ranked higher than the other vice presidents.

Financial officer board involvement was examined to explore CFO links to other players who have influence on the organization. There was agreement among the majority of the three respondent groups that financial officer involvement with the controlling board was somewhat less or much less than the involvement of the presidents with the controlling board. No financial officer indicated somewhat more or much more board involvement than the presidents, yet a third of the financial officers reported they did at times downplay the strength of their relationship to the board.

When comparing CFO board involvement to academic officer board involvement, a majority of all three respondent groups indicated that board involvement was equal. However, significantly more financial officers in-

dicated they had stronger relations with the board than the academic officers perceived the CFOs as having. A majority of the chief academic and financial officers perceived CFO board involvement as being somewhat more or much more than that of the other vice presidents while the presidents were divided between equal and more CFO board involvement compared to the other vice presidents.

Mintzberg's concept of having access to and influencing other areas important to the operation of the organization was examined by exploring financial officer involvement in policy development and implementation in the major areas of the organization. A majority of the presidents and chief financial officers perceived CFO influence and involvement with their institution's major decision-making committee or council to be at a high or very high level, while most of the academic officers perceived CFOs to have moderate influence and involvement. This difference between the academic officers and the financial officers was significant at the .05 level; the chief financial officers perceived themselves as having more council influence than the academic officers viewed the financial officer as having.

The majority of all three respondent groups indicated that financial officer had little or no involvement in the development and implementation of both academic and student services policy and program. Conversely, the majority of all three respondent types indicated that financial officer involvement in developing and implementing program and policy in the business division was high or very high. The academic and financial officers did, however, differ at the .05 level of significance in their perception of financial officer involvement in business policy; the CFOs perceived themselves as having a higher level of involvement in setting and imple-

menting policy in their own areas than the academic officers viewed them as having.

Financial officer involvement in external relations activities were examined to explore the extent of CFO direct links to Mintzberg's external organization influencer. The academic officers were rather evenly divided in reporting the chief financial officers as seldom or moderately often involved in the external relations identified in the questionnaire. However, one half of the presidents and slightly under one half of the chief financial officers viewed CFO involvement in external relations as moderate. These differences were not found to be significant at the .05 level. Moderate or low financial officer involvement in external relations corresponds to Keller's finding that financial officers spend less than 20 percent of their time on external activities.

Implications

The study, which included for the first time the perceptions of the chief executive and chief academic officers at large, four-year colleges and universities verified several earlier findings based on self report by chief financial officer. The accounting, general services, and finance (with the exception of budget development) functions were confirmed by the presidents and academic officers as either major or complete financial officer responsibilities. These same items were also identified as financial officer responsibilities in studies of other kinds of post-secondary institutions. These functions should be acknowledged as the main components of the chief financial officer job responsibility profile at large-four year public colleges and universities, and other areas of the chief financial officer position explored more fully.

Although several job functions were confirmed by a majority of the responding presidents, academic officers, and financial officers as being major or complete financial officer administrative responsibilities, several previously-identified administration functions were also identified by a majority of the responding, presidents, academic and financial officers as minor or not CFO responsibilities. The CFO job profile at large, four-year public colleges and universities should be modified to reflect these findings. For instance, the institutional research, academic labor relations, and legal management items were classified as minor or not a CFO responsibility by a large majority of all three respondent groups in this study.

Business services functions were listed separately in the questionnaire and, for the first time, all but the bookstore functions were not
recognized as a major or complete chief financial officer responsibility.

In fact, the majority of the presidents, academic officers and financial
officers viewed them as minor or not CFO responsibilities. Which executive officer is now responsible for them becomes the new question. Why
has the responsibility for these functions shifted and where it went is
deserving of further investigation.

The experimental data services subscale did not work; there does not appear to be a cluster of data services functions which are the major or complete responsibility of the chief financial officer. The study did, however, establish agreement among the responding presidents, academic officers, and financial officers at large, four-year public colleges and universities that CFOs have minor or no responsibility for academic data processing but may have substantial responsibility for nonacademic data processing. This finding is in accordance with research concerning the

chief financial officer at small colleges and establishes a factor for large institutions of higher education. Financial officers definitely do not control academic data processing. Although the majority of financial officers viewed telecommunications as a major or complete CFO responsibility, this function did not emerge as a major or complete CFO responsibility in the responses of the presidents and academic officers.

Data services operations will become even more important to the institutions as technological advancement in this area continues. Control of the campus communications (telecommunications) operations and both academic and nonacademic data processing functions could, applying the Mintzberg concept, provide an avenue to influence on the organization's decision-making process. Overall, the data services subscale received one of the highest importance scores across all respondent groups. This area will continue to grow as technology advances and associated functions will become more and more critical to organizations.

The associate vice president for, or director of, budget was listed in Table 57 as the third most frequent CFO campus contact. Several presidents noted on their returned questionnaire forms that they were or had reorganized their budget activities into a separate unit which reported directly to the president. If this should be the beginning of a trend at large, four-year colleges and universities, financial officer responsibility for budget development could be changing.

An additional title which appeared in the financial officer listing of weekly campus contacts, but which was not one of the ten most frequent weekly contacts, was the vice president for administrative affairs. What job function responsibilities are being assigned to this relatively new unit? Existing CFO responsibilities could be shifted to this portfolio,

e.g. data services, nonacademic personnel, etc.

If there are trends toward moving selected CFO functions directly into the president's office or into new or different existing units, the profile of the CFO at large, four-year public colleges and universities could be diminishing in terms of Mintzberg's concept of control of critical operations as a base for the exercise of power and influence in the organization.

Of the nine discernable significant findings, only three significant differences were between the financial officers and the presidents. The financial officers and presidents differed significantly on three of the importance subscales—the administration importance, finance importance, and general services importance subscales. The academic officer also, but not significantly, perceived these functions as being more important to the institution than the financial officers did. Because the financial officers do not appear to place as high a level of importance on these items as do the presidents and academic officers, the financial officers may not be taking full advantage of the potential influence factors available to them.

The other six significant differences were between the financial officers and the academic officers. The mean of the presidents' responses was closer to the mean of the academic officers' responses in all instances (importance, responsibility, and institutional relations subscales) except on the academic policy subscale and budget development item where the presidents appeared to be in closer agreement with the financial officers.

The financial and academic officers differed significantly on three of the four institutional relations subscales; in each instance, the fin-

ancial officers indicated they had more involvement than the academic officers thought the CFOs had. The two institutional relations subscales of most concern to the academic officers are the executive decision-making council involvement subscale (a majority of presidents and financial officers indicated high or very high CFO involvement while about one half of the academic officers indicated moderate CFO involvement) and the academic policy involvement subscale (a majority of all types viewed CFO involvement as low, but more financial officers and presidents than academic officers indicated moderate). The presidents were in closer agreement with the financial officers than with the academic officers on both subscales. The academic officers may not have an accurate perception of the true impact of financial officers in areas which have important consequences for their (the academic officers') own operations.

Resource allocations are generally determined through budget development processes. The financial officers view themselves as having significantly more responsibility for this process than the academic officers thought the CFOs had, and the presidents were in closer agreement with the financial officers than with the academic officers on this item. Should the financial officers actually have more responsibility for budget development, more involvement in the institution's executive decision-making council, and more involvement in academic policy areas than the academic officers think the CFOs have, then the academic divisions may be operating under false assumptions in terms of their ability to set their own directions and to determine their own actions.

On the other hand, the past decade has brought increased attention to higher education. State colleges and universities have been subjected to decreases in real dollar funding; the mood of the legislators and taxpayers has become fiscal accountability; and the freedom of information act has eased the way for those outside the business division, and, indeed, outside the institutions themselves, to review what the colleges and universities are doing. It may be that the ending of the growth or boom period of the sixties and early seventies has caused the chief academic officers to pay more attention to resource allocation and to become more active in the budget development process. Such activity would, of course, detract from complete control of the budget development process by the chief financial officers and tend to move responsibility for budget development into the shared responsibility category.

However, these same trends, according to the earlier literature review, have contributed to the evolution of the comptroller or business manager position into the now common vice president for business and finance position. Perhaps a resettling of some of the budget activities is occurring. In all cases of significant difference between the financial officers and the academic officers, the financial officers reported more CFO involvement than the academic officers reported. Given the competition for resources which stems from the very different goals of what are generally the two largest university divisions within the organizational structure (academic and business), LeCroy's informal description of tension between the academic and financial officers may be well founded. The results of this study could be considered to confirmed this tension.

In light of the current accountability environment, chief executive officers are being selected not only for their academic backgrounds, leadership qualities, and vision, but also for their proven ability as managers. Perhaps this accounts for those chief executive officers who indicated they were relocating the budget officer into the president's office.

Certainly such a trend would impact the traditional portfolio of the college and university financial officers, and an associated trend to add more vice presidents could well contribute to a diminished chief financial officer portfolio. However, it may be that the financial officers are the very individuals being reassigned, and that others are being appointed to administer nonbudget development aspects of the traditional chief financial officer portfolio.

Recommendations

This investigative effort resulted in several observations which are offered for consideration in future research concerning the chief financial officer in higher education settings. First, the budget development concept should be explored in greater detail. Perhaps the setting and implementing of financial policy could be separated into several, more specific research questions which could distinctly delineate the line between establishing and implementing the budget priorities.

Second, there is a need to explore more fully the finding that one third of the responding financial officers indicate they at times downplay the strength of their relationship with the controlling board (this question was based on a Cohen and March interview observation). If none of the 130 responding chief financial officers indicated greater board involvement than the presidents, why do they at times feel a need to downplay their board relationships? Perhaps the financial officers are trying to indicate they are good team players and are trying to keep their involvement with the board in balance. Or, conversely, they may be keeping the visibility level of their involvement down to maintain it.

Third, it is time to direct attention away from the confirmed,

rather autonomous profile of the CFO within the business division and explore the more general, executive level CFO activities at the point where the financial officer links with executives from other rather autonomous divisions at the presidential executive team level. The differing perceptions of the academic and financial officers on involvement with the controlling board, on CFO influence on executive level policy development and implementation, and on CFO involvement in both academic and student policy issues should be explored in greater detail.

Fourth, future studies should attempt to test the importance concept differently, perhaps a ranking of the identified job functions which have already been established as highly or critically important to the institution. Also, future chief financial officer function responsibility and relationship research might experiment with a four-point scale to nudge the respondents into an upper-lower response which would clarify better how financial officer job function responsibility, importance, and relationships are perceived.

Fifth, those who attempt to study executive profiles and institutional relationships within higher education institutions might continue to include a second or third respondent group. When agreement and/or disagreement is discovered, the findings are strengthened.

Last, replication of parts of this study might prove a worthy endeavor, particularly because some of the findings were at odds with previous research. These findings may be indicative of new trends, or of the impact of including more than the self-report of those in the position being studied, or of some other factor.

APPENDIX A

Chief Executive Officer Cover Letter and Questionnaire

EAST LANSING . MICHIGAN . 48824-1034

COLLEGE OF EDUCATION

DEPARTMENT OF EDUCATIONAL ADMINISTRATION

EDUCKSON HALL

January 5, 1989

Dear Chief Executive Officer:

This questionnaire is concerned with expanding the existing, but limited, profile of college and university financial officers at large, four-year public institutions of higher education. The intent of the study is to determine chief executive, academic, and financial officers' perceptions of the chief financial officer position at their institutions.

Your response is especially important because a high survey return will strengthen the integrity of the findings of the study. The average time required for chief executive officers pretesting the questionnaire was 15 minutes. The prompt completion and return of the questionnaire is important to the success of this study. You indicate your voluntary agreement to participate by completing and returning this questionnaire; all responses will be strictly confidential, and the findings will be reported in aggregate data format only.

Comments or responses to the questionnaire are welcome; a summary of the study results will be made available upon request. Your contribution to making this effort a successful research endeavor is greatly appreciated.

Respectfully yours,

Barbara L. Ringquist

MSU doctoral student & Director Academic Space and Remodeling Central Michigan University Dr. Frederick R. Whims Dissertation Director 107 Agriculture Hall Michigan States University

A STUDY OF CHIEF FINANCIAL OFFICERS AT LARGE, FOUR-YEAR PUBLIC COLLEGES AND UNIVERSITIES PERCEPTION OF ROLE, RESPONSIBILITIES, AND RELATIONSHIPS

PART I. This section of the questionnaire focuses on your perceptions of the responsibility or functional areas assigned to the institution's chief business/financial officer.

First, indicate whether you consider the listed functions as "None", "Minor", "Shared", "Major", or "Complete" responsibilities of the chief business/financial officer at your institution.

- 1 = "None", the CFO is not responsible for this functional area.
- 2 = "Minor", the CFO is responsible for a minor portion of the functional area and another executive officer is responsible for the major share.
- 3 = "Shared", the CFO and another executive officer are equally responsible for a functional area.
- 4 = "Major", the CFO is responsible for the major portion of the functional area while another executive officer is responsible for a minor share.
- 5 = "Complete", the CFO is the only executive officer responsible for the functional area.

Second, indicate the importance of the function to your institution.

ſ	— Œ	O RESPO	MS IB IL IT	Y (Circ	1e One) ¬	L INSTIL	UTIONA	L IMPORT	ANCE (Circle One) 7
Functional Areas	None	Minor	Shared	<u>Major</u>	Complete	None	Low	<u>Medium</u>	<u>High</u>	Critical
1. Accounting	1	2	3	4	5	1	2	3	4	5
2. Auditing	1	2	3	4	5	1	2	3	4	5
3. Auxiliary Enterprises										
a. Bookstore	1	2	3	4	5	1	2	3	4	5
b. Food Services	1	2	3	4	5	1	2	3	4	5
c. Housing	1	2	3	4	5	1	2	3	4	5
d. Press/Copy Centers	1	2	3	4	5	1	2	3	4	5
e. University Center	1	2	3	4	5	1	2	3	4	5
4. Borrowing of Finances	1	2	3	4	5	1	2	3	4	5
5. Budget Control	1	2	3	4	5	1	2	3	4	5
6. Budget Development	1	2	3	4	5	1	2	3	4	5
7. Bursar/Cashier Operations	1	2	3	4	5	1	2	3	4	5
•										
8. College Services a. Campus Mail Service	1	2	3	4	5	1	2	3	4	5
b. Telecommunications	1	2	3	4	5	1	2	3	4	5
9. Cost Information Determination	1	2	3	4	5	1	2	3	4	5
10. Data Processing (academic)	1	2	3	4	5	1	2	3	4	5
11. Data Processing (nonacademic)	1	2	3	4	5	1	2	3	4	5
12. Development/Fund Raising	1	2	3	4	5	1	2	3	4	5
13. Economic Development/Real Estate	. 1	2	3	4	5	1	2	3	4	5
14. Facility Planning/Construction	1	2	3	4	5	1	2	3	4	5
15. Facility Operation/Maintenance	1	2	3	4	5	1	_		7	
15. Facility Operation/Maintenance	,	۲	3	•	5	1	2	3	•	5

	CF	O RESPO	MS IB IL IT	Y (Circ	1e One) —	[-INSTIT	UT IONA	L IMPORT	ANCE (Circle One)-
Functional Areas	None	Minor	Shared	<u>Major</u>	Complete	None	Low	<u>Medium</u>	<u>High</u>	Critical
16. Grant & Contract Administration	1	2	3	4	5	1	2	3	4	5
17. Indirect Cost Rate Establishmen	t 1	2	3	4	5	1	2	3	4	5
18. Internal Control	1	2	3	4	5	1	2	3	4	5
19. Institutional Research	1	2	3	4	5	1	2	3	4	5
20. Investment Management	1	2	3	4	5	1	2	3	4	5
21. Labor Relations (academic)	1	2	3	4	5	1	2	3	4	5
22. Labor Relations (nonacademic)	1	2	3	4	5	1	2	3	4	5
23. Legal Management	1	2	3	4	5	1	2	3	4	5
24. Mgmt. Information System	1	2	3	4	5	1	2	3	4	5
25. Personnel Admin. (nonacademic)	1	2	3	4	5	1	2	3	4	5
26. Payroll	1	2	3	4	5	1	2	3	4	5
27. Physical Plant	1	2	3	4	5	1	2	3	4	5
28. Purchasing	1	2	3	4	5	1	2	3	4	5
29. Reporting: Federal, State, and Intra/Inter-institutional	1	2	3	4	5	í	2	3	4	5
30. Risk Management & Insurance	1	2	3	4	5	1	2	3	4	5
31. Safety and Security	1	2	3	4	5	1	2	3	4	5
32. Space Management	1	2	3	4	5	1	2	3	4	5
33. Transportation	1	2	3	4	5	1	2	3	4	5

PART II. This section of the questionnaire attempts to examine your perceptions about CBO/CFO institutional relations, board relations, legislative relations, and public relations.

	CIRCLE ONE RESPONSE							
What is the organizational rank of the chief financial officer compared to the	Much Lower	Somewhat Lower	Equal	Somewhat Higher	Much Higher			
a. chief academic officer?	1	2	3	4	5			
b. other vice presidents?	1	2	3	4	5			
 How often does the chief financial officer interact with members of the board of directors/trustees on a formal basis (attend board meetings, present reports, make recommendations, etc.) compared to the 	Much Less	Somewhat Less	Equal	Somewhat More	Much More			
a. chief executive officer?	1	2	3	4	5			
b. chief academic officer?	1	2	3	4	5			
c. other vice presidents?	1	2	3	4	5			
How often does the chief financial officer interact with mem- bers of the board of directors/trustees on an informal basis (one-on-one contacts, social events, etc.) compared to the								
a. chief executive officer?	1	2	3	4	5			
b. chief academic officer?	1	2	3	4	5			
c. other vice presidents?	1	2	3	4	5			

		ſ	CIR	CLE ONE R	ESPONSE -	
		Much Less	Somewhat Less	Equal	Somewhat More	Much More
4.	How extensive is the involvement of the chief financial officer in developing board of director/trustee meeting agendas compared to the					
	a. chief executive officer?	1	2	3	4	5
	b. chief academic officer?	1	2	3	4	5
	c. other vice presidents?	1	2	3	4	5
5.	How influential is the chief financial officer in assisting the chief executive officer in translating board policies into operational procedures and guidelines compared to the					
	a. chief academic officer?	1	2	3	4	5
	b. other vice presidents?	1	2	3	4	5
6.	How extensive is the influence of the chief financial officer on board of director/trustee decision making compared to the					
	a. chief executive officer?	1	2	3	4	5
	b. chief academic officer?	1	2	3	4	5
	c. other vice presidents?	1	2	3	4	5
,	How extensive is the involvement of the chief financial	None	Low	Moderate	<u>H1gh</u>	Very High
,.	officer in developing executive committee/council agendas?	1	2	3	4	5
8.	How extensive is the influence of the chief financial officer on executive committee/council decision making?	1	2	3	4	5
9.	How extensive is the influence of the chief financial officer on long-range, strategic goal setting/strategy development?	1	2	3	4	5
10.	How extensive is the chief financial officer's involvement in academic policy/program development?	1	2	3	4	5
11.	How extensive is the chief financial officer's involvement in student services (other than housing and general services) policy/program development?	1	2	3	4	5
12.	How extensive is the chief financial officer's involvement in financial and business policy/program development?	1	2	3	4	5
13.	How extensive is the chief financial officer's involvement in implementing academic policy/program?	1	2	3	4	5
14.	How extensive is the chief financial officer's involvement in implementing student services (other than housing and general services) policy/program?	1	2	3	4	5
15.	How extensive is the chief financial officer's involvement in implementing financial and business policy/program?	1	2	3	4	5
		Almost Never		Moderate Often	ly Very Often	Almost Always
16.	How frequently does the chief financial officer serve as a liaison to the state legislature?	1	2	3	4	5
17.	How frequently does the chief financial officer interpret and translate legislative action into appropriate institutional			-	·	
18.	How frequently does the chief financial officer serve as an institutional linear to local and elected community officials:	1	2	3	4	5
10	institutional liaison to local and elected community officials:	. 1	ć	J	•	9
	How frequently does the chief financial officer serve as an institutional liaison to local business and community leaders?	1	2	3	4	5
	How frequently does the chief financial officer serve as an institutional liaison to student and parent groups?	1	2	3	4	5
21.	How many years have you served as a chief academic officer?					

APPENDIX B

Chief Academic Officer Cover Letter and Questionnaire

EAST LANSING . MICHIGAN . 48824 1034

COLLEGE OF EDUCATION

DEPARTMENT OF EDUCATIONAL ADMINISTRATION

EDUCASON HALL

January 5, 1989

Dear Chief Academic Officer:

This questionnaire is concerned with expanding the existing, but limited, profile of college and university financial officers at large, four-year public institutions of higher education. The intent of the study is to determine chief executive, academic, and financial officers' perceptions of the chief financial officer position at their institutions.

Your response is especially important because a high survey return will strengthen the integrity of the findings of the study. The average time required for chief academic officers pretesting the questionnaire was 15 minutes. The prompt completion and return of the questionnaire is important to the success of this study. You indicate your voluntary agreement to participate by completing and returning this questionnaire; all responses will be strictly confidential, and the findings will be reported in aggregate data format only.

Comments or responses to the questionnaire are welcome; a summary of the study results will be made available upon request. Your contribution to making this effort a successful research endeavor is greatly appreciated.

Respectfully yours,

Barbara L. Ringquist 7

MSU doctoral student & Director Academic Space and Remodeling Central Michigan University

107 Agriculture Hall Michigan States University

Dr. Frederick R. Whims

Dissertation Director

A STUDY OF CHIEF FINANCIAL OFFICERS AT LARGE, FOUR-YEAR PUBLIC COLLEGES AND UNIVERSITIES PERCEPTION OF ROLE, RESPONSIBILITIES, AND RELATIONSHIPS

PART 1. This section of the questionnaire focuses on your perceptions of the responsibility or functional areas assigned to the institution's chief business/financial officer.

First, indicate whether you consider the listed functions as "None", "Minor", "Shared", "Major", or "Complete" responsibilities of the chief business/financial officer at your institution.

- 1 = "None", the CFO is not responsible for this functional area.
- 2 = "Minor", the CFO is responsible for a minor portion of the functional area and another executive officer is responsible for the major share.
- 3 = "Shared", the CFO and another executive officer are equally responsible for a functional area.
- 4 = "Major", the CFO is responsible for the major portion of the functional area while another executive officer is responsible for a minor share.
- 5 = "Complete", the CFO is the only executive officer responsible for the functional area.

Second, indicate the importance of the function to your institution.

	r- cf	O RESPO	NS IB IL IT	Y (Circ	1e One) ¬	r INSTIT	UTIONA	L IMPORT	ANCE (Circle One)]
Functional Areas	None	Minor	Shared	<u>Major</u>	Complete	None	Low	<u>Medium</u>	<u>High</u>	Critical
1. Accounting	1	2	3	4	5	1	2	3	4	5
2. Auditing	1	2	3	4	5	1	2	3	4	5
3. Auxiliary Enterprises										
a. Bookstore	1	2	3	4	5	1	2	3	4	5
b. Food Services	1	2	3	4	5	1	2	3	4	5
c. Housing	1	2	3	4	5	1	2	3	4	5
d. Press/Copy Centers	1	2	3	4	5	1	2	3	4	5
e. University Center	1	2	3	4	5	1	2	3	4	5
	_			_	_			_		_
4. Borrowing of Finances	1	2	3	4	5	1	2	3	4	5
5. Budget Control	1	2	3	4	5	1	2	3	4	5
6. Budget Development	1	2	3	4	5	1	2	3	4	5
7. Bursar/Cashier Operations	1	2	3	4	5	1	2	3	4	5
0. Callaga Carridana										
8. College Services a. Campus Mail Service	1	2	3	4	5	1	2	3	4	5
b. Telecommunications	1	2	3	4	5	1	2	3	4	5
9. Cost Information Determination	1	2	3	4	5	1	2	3	4	5
10. Data Processing (academic)	1	2	3	4	5	1	2	3	4	5
11. Data Processing (nonacademic)	1	2	3	4	5	1	2	3	4	5
12. Development/Fund Raising	1	2	3	4	5	1	2	3	4	5
13. Economic Development/Real Estat	. 1	2	3	4	5	1	2	3	4	5
•			_	-	5	1				5
14. Facility Planning/Construction	1	2	3	4	-	•	2	3	4	-
15. Facility Operation/Maintenance	1	2	3	4	5	1	2	3	4	5

	r CF	O RESPO	MS IB IL IT	Y (Circ	1e One) -	[INSTIT	UT I ONA	L IMPORT	ANCE (Circle One)—
Functional Areas	None	Minor	Shared	<u>Major</u>	Complete	None	Low	<u>Medium</u>	<u>H1gh</u>	Critical
16. Grant & Contract Administration	1	2	3	4	5	1	2	3	4	5
17. Indirect Cost Rate Establishmen	t 1	2	3	4	5	1	2	3	4	5
18. Internal Control	1	2	3	4	5	1	2	3	4	5
19. Institutional Research	1	2	3	4	5	1	2	3	4	5
20. Investment Management	1	2	3	4	5	1	2	3	4	5
21. Labor Relations (academic)	1	2	3	4	5	. 1	2	3	4	5
22. Labor Relations (nonacademic)	1	2	3	4	5	1	2	3	4	, 5
23. Legal Management	1	2	3	4	5	1	2	3	4	5
24. Hgmt. Information System	1	2	3	4	5	1	2	3	4	5
25. Personnel Admin. (nonacademic)	1	2	3	4	5	1	2	3	4	5
26. Payroll	1	2	3	4	5	1	2	3	4	5
27. Physical Plant	1	2	3	4	5	1	2	3	4	5
28. Purchasing	1	2	3	4	5	1	2	3	4	5
29. Reporting: Federal, State, and Intra/Inter-institutional	1	2	3	4	5	i	2	3	4	5
30. Risk Management & Insurance	1	2	3	4	5	1	2	3	4	5
31. Safety and Security	1	2	3	4	5	1	2	3	4	5
32. Space Management	1	2	3	4	5	1	2	3	4	5
33. Transportation	1	2	3	4	5	1	2	3	4	5

PART II. This section of the questionnaire attempts to examine your perceptions about CBO/CFO institutional relations, board relations, legislative relations, and public relations.

chief academic officer?	CIRCLE ONE RESPONSE							
 What is the organizational rank of the chief financial officer compared to the 	Much Lower	Somewhat Lower	<u>Equal</u>	Somewhat Higher	Much Higher			
a. chief academic officer?	1	2	3	4	5			
b. other vice presidents?	1	2	3	4	5			
 How often does the chief financial officer interact with members of the board of directors/trustees on a formal basis (attend board meetings, present reports, make recommendations, etc.) compared to the 	Much Less	Somewhat Less	Equal	Somewhat More	Much More			
a. chief executive officer?	1	2	3	4	5			
b. chief academic officer?	1	2	3	4	5			
c. other vice presidents?	1	2	3	4	5			
 How often does the chief financial officer interact with mem- bers of the board of directors/trustees on an informal basis (one-on-one contacts, social events, etc.) compared to the 								
a. chief executive officer?	1	2	3	4	5			
b. chief academic officer?	1	2	3	4	5			
c. other vice presidents?	1	ż	3	4	5			

			CIR	CLE ONE R	ESPONSE -	
		Much Less	Somewhat Less	<u>Equal</u>	Somewhat More	Much More
4.	How extensive is the involvement of the chief financial officer in developing board of director/trustee meeting agendas compared to the					
	a. chief executive officer?	1	2	3	4	5
	b. chief academic officer?	1	2	3	4	5
	c. other vice presidents?	1	2	3	4	5
5.	How influential is the chief financial officer in assisting the chief executive officer in translating board policies into operational procedures and guidelines compared to the					
	a. chief academic officer?	1	2	3	4	5
	b. other vice presidents?	1	2	3	4	5
6.	How extensive is the influence of the chief financial officer on board of director/trustee decision making compared to the					
	a. chief executive officer?	1	2	3	4	5
	b. chief academic officer?	1	2	3	4	5
	c. other vice presidents?	1	2	3	4	5
,	How extensive is the involvement of the chief financial	None	Low	Moderate	H1 gh	Very High
,.	officer in developing executive committee/council agendas?	1	2	3	4	5
8.	How extensive is the influence of the chief financial officer on executive committee/council decision making?	1	2	3	4	5
9.	How extensive is the influence of the chief financial officer on long-range, strategic goal setting/strategy development?	1	2	3	4	5
10.	How extensive is the chief financial officer's involvement in academic policy/program development?	1	2	3	4	5
11.	How extensive is the chief financial officer's involvement in student services (other than housing and general services) policy/program development?	1	2	3	4	5
12.	How extensive is the chief financial officer's involvement in financial and business policy/program development?	1	2	3	4	5
13.	How extensive is the chief financial officer's involvement in implementing academic policy/program?	1	2	3	4	5
14.	How extensive is the chief financial officer's involvement in implementing student services (other than housing and general services) policy/program?	1	2	3	4	5
15.	How extensive is the chief financial officer's involvement in implementing financial and business policy/program?	1	2	3	4	5
		Almos Never			ly Very Often	Almost Always
16.	How frequently does the chief financial officer serve as a liaison to the state legislature?	1	2	3	4	5
17.	How frequently does the chief financial officer interpret and translate legislative action into appropriate institutional policy and procedure?	1	2	3	4	5
18.	How frequently does the chief financial officer serve as an institutional liaison to local and elected community officials:		2	3	4	5
19.	How frequently does the chief financial officer serve as an institutional liaison to local business and community leaders?	1	2	3	4	5
20.	How frequently does the chief financial officer serve as an institutional liaison to student and parent groups?	1	2	3	4	5
21.	How many years have you served as a chief academic officer?					

APPENDIX C

Chief Financial Officer Cover Letter and Questionnaire COLLEGE OF EDUCATION

DEPARTMENT OF EDUCATIONAL ADMINISTRATION

ERICKSON HALL

EAST LANSING . MICHIGAN . 48824-1034

January 5, 1989

Dear Chief Financial Officer:

This questionnaire is concerned with expanding the existing, but limited, profile of college and university financial officers at large, four-year public institutions of higher education. The intent of the study is to determine chief executive, academic, and financial officers' perceptions of the chief financial officer position at their institutions.

Your response is especially important because a high survey return will strengthen the integrity of the findings of the study. The average time required for chief financial officers pretesting the questionnaire was 20-25 minutes. The prompt completion and return of the questionnaire is important to the success of this study. You indicate your voluntary agreement to participate by completing and returning this questionnaire; all responses will be strictly confidential, and the findings will be reported in aggregate data format only.

Comments or responses to the questionnaire are welcome; a summary of the study results will be made available upon request. Your contribution to making this effort a successful research endeavor is greatly appreciated.

Respectfully yours,

Barbara L. Ringquist

MSU doctoral student & Director Academic Space and Remodeling

Central Michigan University

Dr. Frederick R. Whims Dissertation Director 107 Agriculture Hall

Michigan States University

A STUDY OF CHIEF FINANCIAL OFFICERS AT LARGE, FOUR-YEAR PUBLIC COLLEGES AND UNIVERSITIES PERCEPTION OF ROLE, RESPONSIBILITIES, AND RELATIONSHIPS

PART I. This section of the questionnaire focuses on your perceptions of the responsibility or functional areas assigned to the institution's chief business/financial officer.

First, indicate whether you consider the listed functions as "None", "Minor", "Shared", "Major", or "Complete" responsibilities of the chief business/financial officer at your institution.

- 1 = "None", the CFO is not responsible for this functional area.
- 2 = "Minor", the CFO is responsible for a minor portion of the functional area and another executive officer is responsible for the major share.
- 3 = "Shared", the CFO and another executive officer are equally responsible for a functional area.
- 4 = "Major", the CFO is responsible for the major portion of the functional area while another executive officer is responsible for a minor share.
- 5 = "Complete", the CFO is the only executive officer responsible for the functional area.

Second, indicate the importance of the function to your institution.

	CF	O RESPO	NS IB IL IT	Y (Circ	le One) ¬	r INSTIT	UT I ONA	L IMPORT	ANCE (Circle One) 7
Functional Areas	None	Minor	Shared	<u>Major</u>	Complete	None	Low	Medium	<u>High</u>	Critical
1. Accounting	1	2	3	4	5	1	2	3	4	5
2. Auditing	1	2	3	4	5	1	2	3	4	5
3. Auxiliary Enterprises										
a. Bookstore	1	2	3	4	5	1	2	3	4	5
b. Food Services	1	2	3	4	5	1	2	3	4	5
c. Housing	1	2	3	4	5	1	2	3	4	5
d. Press/Copy Centers	1	2	3	4	5	1	2	3	4	5
e. University Center	1	2	3	4	5	1	2	3	4	5
4. Borrowing of Finances	1	2	3	4	5	1	2	3	4	5
5. Budget Control	1	2	3	4	5	1	2	3	4	5
6. Budget Development	1	2	3	4	5	1	2	3	4	5
7. Bursar/Cashier Operations	1	2	3	4	5	1	2	3	4	5
_										
8. College Services a. Campus Mail Service	1	2	3	4	5	1	2	3	4	5
b. Telecommunications	1	2	3	4	5	1	2	3	4	5
9. Cost Information Determination	1	2	3	4	5	1	2	3	4	5
10. Data Processing (academic)	1	2	3	4	5	1	2	3	4	5
11. Data Processing (nonacademic)	1	2	3	4	5	1	2	3	4	5
12. Development/Fund Raising	1	2	3	4	5	1	2	3	4	5
13. Economic Development/Real Estat	e 1	2	3	4	5	1	2	3	4	5
14. Facility Planning/Construction	1	2	3	4	5	1	2	3	4	5
15. Facility Operation/Maintenance	1	2	3	4	5	1	2	3	4	5

	L CI	O RESPO	WZIRICII	T (Circ	ie One) —	LINSIII	UT LONA	IL IMPORT	ANCE	(Circle On
Functional Areas	None	Minor	Shared	<u>Major</u>	Complete	None	Low	<u>Medium</u>	H1 gh	Critical
6. Grant & Contract Administration	1	2	3	4	5	1	2	3	4	5
7. Indirect Cost Rate Establishmer	nt 1	2	3	4	5	1	2	3	4	5
8. Internal Control	1	2	3	4	5	1	2	3	4	5
9. Institutional Research	1	2	3	4	5	1	2	3	4	5
O. Investment Management	1	2	3	4	5	1	2	3	4	5
1. Labor Relations (academic)	1	2	3	4	5	1	2	3	4	5
2. Labor Relations (nonacademic)	1	2	3	4	5	1	2	3	4	· 5
3. Legal Management	1	2	3	4	5	1	2	3	4	5
4. Mgmt. Information System	1	2	3	4	5	1	2	3	4	5
5. Personnel Admin. (nonacademic)	1	2	3	4	5	1	2	3	4	5
6. Payroll	1	2	3	4	5	1	2	3	4	5
7. Physical Plant	1	2	3	4	5	1	2	3	4	5
B. Purchasing	1	2	3	4	5	1	2	3	4	5
9. Reporting: Federal, State, and Intra/Inter-institutional	1	2	3	4	5	1	2	3	4	5
O. Risk Management & Insurance	1	2	3	4	5	1	2	3	4	5
l. Safety and Security	1	2	3	4	5	1	2	3	4	5
2. Space Management	1	2	3	4	5	1	2	3	4	5
3. Transportation	1	2	3	4	5	1	2	3	4	5
From the preceding, list the fiv for which you delegate the <u>great</u> to a subordinate (i.e., those ar are least personally involved).	est re	esponsit	ility	for a s	m the prece which you ubordinate t personall	delegate (i.e., th	the <u>le</u> ose a r	<u>ast</u> resp	onsibi	ility to
Functional Area	<u>!</u>					Functiona	1 Area	1		
				1						
				2						
•				3						
•				4.						
•				5						
NRT II. This section of the quest relations, board relation	ionna is, le	ire atte gislativ	mpts to re relati	examine ons, an	d public re	ptions ab lations. CIR				
What is the organizational ran officer compared to the	ik of 1	the chie	ef financ	ial	Much Lower	Somewha Lower	-	Some ual Hig	what her	Much Higher
a. chief academic officer? .					1	2	:	3 4	ı	5

			Somewhat Equal Somewhat Hore Hore			
		Much Less				
2.	How often does the chief financial officer interact with members of the board of directors/trustees on a formal basis (attend board meetings, present reports, make recommendations, etc.) compared to the					
	a. chief executive officer?	. 1	2	3	4	5
	b. chief academic officer?	. 1	2	3	4	5
	c. other vice presidents?	. 1	2	3	4	5
3.	How often does the chief financial officer interact with members of the board of directors/trustees on an informal basis (one-on-one contacts, social events, etc.) compared to the					
	a. chief executive officer?	. 1	2	3	4	5
	b. chief academic officer?	. 1	2	3	4	5
	c. other vice presidents?	. 1	2	ż	4	5
4.	How extensive is the involvement of the chief financial officin developing board of director/trustee meeting agendas comparts the	-				
	a. chief executive officer?	. 1	2	3	4	5
	b. chief academic officer?	. 1	2	3	4	5
	c. other vice presidents?	. 1	2	3	4	5
5.	How influential is the chief financial officer in assisting the chief executive officer in translating board policies into operational procedures and guidelines compared to the	0	•			
	a. chief academic officer?	. 1	2	3	4	5
	b. other vice presidents?	. 1	2	3	4	5
6.	How extensive is the influence of the chief financial officer on board of director/trustee decision making compared to the					
	a. chief executive officer?	. 1	2	3	4	5
	b. chief academic officer?	. 1	2	3	4	5
	c. other vice presidents?	. 1	2	3	4	5
		Non	e Low	Moderate	H1 gh	Very <u>High</u>
7.	How extensive is the involvement of the chief financial officer in developing executive committee/council agendas?	. 1	2	3	4	5
8.	How extensive is the influence of the chief financial officer on executive committee/council decision making?	. 1	2	3	4	5
9.	How extensive is the influence of the chief financial officer on long-range, strategic goal setting/strategy development?	1	2	3	4	5
10.	How extensive is the chief financial officer's involvement in academic policy/program development?		2	3	4	5
11.	How extensive is the chief financial officer's involvement in student services (other than housing and general services) policy/program development?		2	3	4	5
12.	How extensive is the chief financial officer's involvement in financial and business policy/program development?		2	3	4	5
13.	How extensive is the chief financial officer's involvement in implementing academic policy/program?		2	3	4	5
14.	How extensive is the chief financial officer's involvement in implementing student services (other than housing and general services) policy/program?		2	3	4	5
15.	How extensive is the chief financial officer's involvement in implementing financial and business policy/program?		2	3	4	5

		CIRCLE ONE RESPONSE				
		Almost Never	Sel dom	Moderately Often		Almos t Always
16.	Now frequently does the chief financial officer serve as a liaison to the state legislature?	1	2	, 3	4	5
17.	Now frequently does the chief financial officer interpret and translate legislative action into appropriate institutional policy and procedure?	1	2	3	4	5
18.	Now frequently does the chief financial officer serve as an institutional liaison to local and elected community officials?	1	2	3	4	5
19.	Now frequently does the chief financial officer serve as an institutional liaison to local business and community leaders?	1	2	3	4	5 .
20.	Now frequently does the chief financial officer serve as an institutional liaison to student and parent groups?	1	2	3	4	5
21.	How many years have you served in a chief financial officer posit	ion?				
22.	Do you hold office on the board of directors/trustees? (check one) [yes [no		
	If yes: Name the office			_		
	If yes: Are you a voting member of that body? (check one) y	res 🗀	no			
23.	Are you a board of directors/trustees' finance or similar committ	ee member	? (checi	one)	res 🗀	_ no
	If no: Do you work directly with the treasurer of the board? (che	ck one) [yes	no no		
24.	Have you at times downplayed the strength of your board relations	hips?	yes	no		
	About how many times have you appeared before legislative/regulat	-		•		
26.	About how many times have you been interviewed on by the press in	the past	year?_			
27.	About how many times have you been interviewed on radio or TV in	the past	year?			
28.	About how many times have you given speeches to outside groups in	the past	year?			
PART	III. This section of the questionnaire deals with background info	rmation a	bout you	r institutio	on.	
1. To	otal fall 1988 head count enrollment to nearest thousand		ltime Jergrad _		Fullti _Gradua	
2. S	ize of institution's 1988-89 total budget to nearest million, incl	uding all	funds,	both general	& rest	ricted:
S						
				,		
PART	IV. Please rank order by general title those campus individuals y frequently on a weekly basis, listing the most frequent conta academic vice president, the director of physical plant, the fewer names than the number of spaces provided.	ct first	(example	es would be t	the	
a	f					
b.	g					
d. –	1.					

THANK YOU VERY MUCH FOR TAKING THE TIME TO COMPLETE THIS SURVEY

Please return this questionnaire in the enclosed stamped and addressed envelope

APPENDIX D

First Followup Correspondence

COLLEGE OF EDUCATION
DEPARTMENT OF EDUCATIONAL ADMINISTRATION
ERICKSON HALL

EAST LANSING . MICHIGAN . 48824-1034

January 20, 1989

Dear Chief Executive Officer:

Last week a questionnaire was mailed to you asking you to provide information about your perceptions of the chief financial officer position at large public institutions of higher education.

If you have not already done so, would you please take the short time necessary to complete the questionnaire and return it in the self-addressed, postage-paid envelope which was enclosed. Your reply is extremely important because responses from individuals with varied types of administrative experiences are needed.

If you have already completed and returned the questionnaire, I want to thank you. Your contribution to this research effort is greatly appreciated.

Sincerely,

Barbara L. Ringquist, MSU Doctoral Student, & Director Academic Space and Remodeling Central Michigan University

MSU is an Affirmative Action Equal Opportunity Institution

COLLEGE OF EDUCATION
DEPARTMENT OF EDUCATIONAL ADMINISTRATION
ERICKSON HALL

EAST LANSING . MICHIGAN . 48824-1834

January 20, 1989

Dear Chief Academic Officer:

Last week a questionnaire was mailed to you asking you to provide information about your perceptions of the chief financial officer position at large public institutions of higher education.

If you have not already done so, would you please take the short time necessary to complete the questionnaire and return it in the self-addressed, postage-paid envelope which was enclosed. Your reply is extremely important because responses from individuals with varied types of administrative experiences are needed.

If you have already completed and returned the questionnaire, I want to thank you. Your contribution to this research effort is greatly appreciated.

Sincerely,

Barbara L. Ringquist, MSU Doctoral Student, & Director Academic Space and Remodeling

Sarbara L. 19

Central Michigan University

COLLEGE OF EDUCATION

DEPARTMENT OF EDUCATIONAL ADMINISTRATION

ENICKSON HALL

EAST LANSING . MICHIGAN . 48824-1034

January 20, 1989

Dear Chief Financial Officer:

Last week a questionnaire was mailed to you asking you to provide information about your experiences as a chief financial officer of a large public college or university.

If you have not already done so, would you please take the short time necessary to complete the questionnaire and return it in the self-addressed, postage-paid envelope which was enclosed. Your reply is extremely important because responses from individuals with experience in your administrative position are needed.

If you have already completed and returned the questionnaire, I want to thank you. Your contribution to this research effort is greatly appreciated.

Barbara L. Ringquist, MSU Doctoral Student, & Director Academic Space and Remodeling Central Michigan University

Sincerely.

MSU is an Affirmative Action Equal Opportunity Institution

APPENDIX E

Second Followup Correspondence

EAST LANSING . MICHIGAN . 48824-1034

COLLEGE OF EDUCATION

DEPARTMENT OF EDUCATIONAL ADMINISTRATION

ENICKSON HALL

February 22, 1989

Dear Chief Academic Officer:

Several weeks ago, you and your chief executive and chief financial officers were mailed a questionnaire which asked you to provide information about the position of chief financial officer in large public institutions of higher education.

Your reply remains important to this research effort, not only because various administrative viewpoints are needed, but also because your response will help increase the strength of the findings. If you have not already done so, would you please take a few minutes to complete the survey. A return envelope has been enclosed for your convenience.

If you are preparing to complete your survey now, please accept our appreciation for your help. If your survey has recently been mailed, we thank you for your contribution and for your support of the graduate education process.

Respectfully yours.

Barbara L. Ringquist, MSU Doctoral Student, & Director Academic Space and Remodeling

Central Michigan University

Dr. Frederick R. Whims Dissertation Director 101 Agriculture Hall Michigan State University

MSU is an Affirmative Action/Equal Opportunity Institution

COLLEGE OF EDUCATION

DEPARTMENT OF EDUCATIONAL ADMINISTRATION

ERICKSON HALL

EAST LANSING . MICHIGAN . 48824-1034

February 22, 1989

Dear Chief Executive Officer:

Several weeks ago, you and your chief academic and chief financial officers were mailed a questionnaire which asked you to provide information about the position of chief financial officer in large public institutions of higher education.

Your reply remains important to this research effort, not only because various administrative viewpoints are needed, but also because your response will increase the strength of the findings. If you have not already done so, would you please take a few minutes to complete the survey. A return envelope has been enclosed for your convenience.

If you are preparing to complete your survey now, please accept our appreciation for your help. If your survey has recently been mailed, we thank you for your contribution and for your support of the graduate education process.

Respectfully yours,

Barbara L. Ringquist, MSU Doctoral Student, & Director Academic Space and Remodeling

Central Michigan University

Dr. Frederick R. Whims Dissertation Director 101 Agriculture Hall

Michigan State University

EAST LANSING . MICHIGAN . 48824-1034

COLLEGE OF EDUCATION
DEPARTMENT OF EDUCATIONAL ADMINISTRATION
ENCKSON HALL

February 22, 1989

Dear Chief Financial Officer:

Several weeks ago, you and your chief executive and chief academic officers were mailed a questionnaire which asked you to provide information about the position of chief financial officer in large public institutions of higher education.

Your reply remains important to this research effort, not only because various administrative viewpoints are needed, but also because your response will help increase the strength of the findings. If you have not already done so, would you please take a few minutes to complete the survey. A second questionnaire and a return envelope are enclosed for your convenience.

If you are preparing to complete your survey now, please accept our appreciation for your help. If your survey has recently been mailed, we thank you for your contribution and for your support of the graduate education process.

Respectfully yours,

Barbara L. Ringquist, MSU Doctoral Student, & Director Academic Space and Remodeling

Central Michigan University

Dr. Frederick R. Whims Dissertation Director 101 Agriculture Hall Michigan State University APPENDIX F

Definition of Terms

APPENDIX F

Definition of Terms

Accounting. To accurately record and report, through a system of accounts which utilize standard accounting procedures and terminology, all financial transactions of the institution (CUBA, 5:1, 1982; Jenkins, p. 8, 1978, Whims, p. 128, 1974)

Auditing. To conduct independent appraisals within the institution to examine and evaluate its activities (CUBA, 4:5, p. 1, 1981).

Auxiliary Enterprises. Basically self-supporting activities which provide "a service, directly or indirectly, to students, faculty, or staff, and charge a fee related to, but not necessarily equal to, the cost of the services." Typical operations include bookstores, food service, union buildings, copy centers, university press operations, the residence halls, and so forth (CUBA, 3:2, p. 1, 1981).

<u>Board Relations</u>. A variety of activities which include the preparation of materials, institutional compliance with the bylaws and policies set by the board, meeting with the board as a whole and with its subcommittees, and attendance at board meetings (Whims, p. 136, 1974).

<u>Borrowing of Finances</u>. Securing monies for the institution through capital bonding, tax anticipation notes, etc. (Whims, p. 137, 1974).

<u>Budget Control</u>. To translate institutional budget plans and strategies into operation, expressed in dollars, for a specified period of time.

<u>Budget Development</u>. To determine financial support/budget allocations to support institutional program plans and strategies.

<u>Bursar/Cashier Operation</u>. Receiving and depositing cash transactions, such as student tuition and fees, and collecting accounts receivables at the institution (Jenkins, 1978, p.8).

<u>College Services</u>. The provision of the general services to the institution, e.g. campus mail and telephone services (Whims, p. 136, 1974).

<u>Cost Information Determination</u>. To assist management and decision-making activities by providing related statistical information relative to identified program activity areas (CUBA, 4:6, 1975).

<u>Data Processing Operations/Services</u>. The orderly collection and handling of data, maintenance of files, and production of reports via electronic processing for the purpose of providing organized information to requesting academic and nonacademic departments and units (CUBA, 2:2, p. 1, 1981).

<u>Development/Fund Raising</u>. Activities designed to bring additional, nonregular, revenue into the institution through gifts and donations, etc. (Whims, p. 130, 1974).

Economic Development/Real Estate. The type of activities designed to forge alliances with government and industry for the mutual benefit of all parties, e.g. research parks. To locate and purchase property for the expansion and/or relocation of institutional facilities and to purchase property that may bring financial benefit to the institution through the leasing or selling for a profit (Whims, p. 134, 1974).

<u>Facility Planning/Construction</u>. To develop and/or maintain a plan that will permit an orderly and useful improvement and rehabilitation of plant facilities and land, and to oversee the implementation of changes

to plant facility and land (Whims, p. 128, 1974). To provide technical assistance, and general coordination of new facility planning, design, and construction phases (CUBA, 3:3, p. 1-9, 1982).

<u>Facility Operation/Maintenance</u>. To keep regularly facilities in good general operation so that program delivery can occur continuously without interruption.

Grant and Contract Administration. The administration, negotiation and control of grants and contracts received by the university from outside sponsoring agencies (Jenkins, p. 9, 1978).

<u>Indirect Cost Rate Establishment</u>. To interpret normally generated data (MIS), and obtain and provide additional data about the institution and its environment to assist in planning decisions/strategy development.

<u>Internal Control</u>. To insure the proper and accurate recording of income and expenditures.

<u>Investment Management</u>. To obtain maximum yield investments to provide additional income for the institution via the use of endowment funds as well as through the use of non-endowment funds such as current, capital, pension, and other funds, and to insure funds are used in compliance with applicable restrictions (CUBA, 4:2, 1979 and Whims, p. 129, 1974).

<u>Labor Relations</u>. The relationship between management and organized faculty groups (academic) and staff groups (nonacademic); including collective bargaining to determine salaries, wages and benefits, and working conditions (CUBA, 2:10, p. 1, 1981).

<u>Legal Management</u>. Coordination and management of business-related legal problems concerning the university (Jenkins, p. 10, 19780).

<u>Legislative Relations</u>. To assist the institution in maintaining open and effective communications with the legislators and the legislative

process, to provide opportunity for the institution to benefit from legislative actions, and to propose and support legislation that will benefit the institution (Whims, p. 131, 1974).

Management Information Systems. To support the planning and administrative leadership functions of an organization by "furnishing uniform, timely information to assist in the decision-work process.", (i.e., generate unit reports) (CUBA, 2:3, p. 1, 1981).

Organizational (Institutional) Relationships. The relationship of the chief business/financial officer to the president and other executive officers and administrative units.

<u>Payroll</u>. The preparation and distribution of personnel payments including provision of all information required by federal, state, and local taxing and retirement agencies (Whims, p. 132, 1974).

<u>Personnel Administration (nonacademic)</u>. The administration of a nonacademic personnel program which could include such factors as wage and salary administration, benefits, affirmative action and equal opportunity in hiring, labor relations, training and development, and, records and reporting systems, and so forth (CUBA, 1:9, p. 1, 1981).

<u>Physical Plant</u>. Operation, maintenance and improvement of buildings, grounds, and equipment of the institution (Jenkins, p. 10, 1978).

<u>Policy Formulation</u>. To assist the president in preparing policy recommendation for the board and, conversely, to translate board action into operational procedures and guidelines (Whims, p. 133, 1974). Also, to participate fully in administrative policy formulation.

<u>Professionally Related Activities</u>. To contact professional colleagues, attend seminars and conferences, meet with state officials, participate in local and state professional committees, serve as a consultant, and publish.

<u>Public Relations</u>. To liaison with locally elected officials (city treasurer, etc.,), participate in service organizations, liaison with state officials, and process citizens' complaints (Whims, p. 136, 1974).

<u>Purchasing</u>. To identify sources of and obtain needed support, materials, and services at the most economic cost within accepted limits or quality; may include the mailing, inventory and other related activities (CUBA, 3:1, 1982).

Reporting. To prepare information and timely reports for various agencies, federal, state, local, and inter-intrainstitutional (Whims, p. 136, 1974).

Risk Management and Insurance. To identify and analyze loss potential and prevent the occurrence of the loss to the maximum practical extent; may include insurance, bonding, and so forth (CUBA, 2:5, p.1, 1979).

<u>Safety and Security</u>. To minimize health hazards and risks of injury through administration of a program to establish and maintain safety standards and procedures, e.g., safety education, premise surveys, reporting, emergency procedures, and so forth (CUBA, 3:5, p. 1, 1982). To also proasfe environment through the protection of life and property (Jenkins, p. 11, 1978).

<u>Space Management</u>. To identify existing space in terms of its current use and utilization level(s) and, to ascertain space needs and how to provide for them economically (CUBA, 2:2, p. 1, 1981).

<u>Transportation</u>. To provide an efficient and effective motor pool, parking, pedestrian pathways, material and equipment delivery, and so forth to the inhabitants and users of the campus (CUBA, 3:5, p. 11, 1982).

APPENDIX G

Directory of Institutions

APPENDIX G

Directory of Institutions

Alabama:

- 1. Auburn University
- 2. University of Alabama
- 3. University of Alabama Birmingham

Arizona:

- 4. Arizona State University
- 5. Northern Arizona University
- 6. University of Arizona

Arkansas:

- 7. University of Arkansas Fayetteville
- 8. University of Arkansas Little Rock

California:

- 9. California Polytechnic State University San Luis Obispo
- 10. California State Polytechnic University Pomona
- 11. California State University Chico
- 12. California State University Fresno
- 13. California State University Fullerton
- 14. California State University Hayward
- 15. California State University Long Beach
- 16. California State University Los Angeles
- 17. California State University Northridge
- 18. California State University Sacramento
- 19. San Diego State University
- 20. San Francisco State University
- 21. San Jose State University
- 22. University of California Berkeley
- 23. University of California Davis
- 24. University of California Irvine
- 25. University of California Los Angeles

- 26. University of California San Diego
- 27. University of California Santa Barbara

Colorado:

- 28. Colorado State University
- 29. Metropolitan State College
- 30. University of Colorado Boulder
- 31. University of Colorado Denver

Connecticut:

- 32. Central Connecticut State University
- 33. Southern Connecticut State University
- 34. University of Connecticut

Delaware:

35. University of Delaware

Florida:

- 36. Florida Atlantic University
- 37. Florida International University
- 38. Florida State University
- 39. University of Central Florida
- 40. University of Florida
- 41. University of South Florida

Georgia:

- 42. Georgia Institute of Technology
- 43. Georgia State University
- 44. University of Georgia

Hawaii:

45. University of Hawaii - Manoa

Idaho:

46. Boise State University

Illinois:

- 47. Eastern Illinois University
- 48. Illinois State University
- 49. Northeastern Illinois University
- 50. Northern Illinois University
- 51. Southern Illinois University Carbondale
- 52. Southern Illinois University Edwardsville
- 53. University of Illinois Chicago
- 54. University of Illinois Urbana-Champaign
- 55. Western Illinois University

Indiana:

- 56. Ball State University
- 57. Indiana State University
- 58. Indiana University Bloomington
- 59. Indiana University-Purdue University Indianapolis
- 60. Indiana University-Purdue University Fort Wayne
- 61. Purdue University

Iowa:

- 62. Iowa State University of Science and Technology
- 63. University of Iowa
- 64. University of Northern Iowa

Kansas:

- 65. Kansas State University
- 66. University of Kansas
- 67. Wichita State University

Kentucky:

- 68. Eastern Kentucky University
- 69. University of Kentucky
- 70. University of Louisville
- 71. Western Kentucky University

Louisiana:

- 72. Louisiana State University and Agricultural and Mechanical College
- 73. University of New Orleans
- 74. Louisiana Tech University
- 75. Northeast Louisiana University
- 76. University of Southwestern Louisiana

Maine:

77. University of Main - Orono

Maryland:

- 78. Towson State University
- 79. University of Maryland College Park
- 80. University of Maryland University College

Massachusetts:

- 81. University of Lowell
- 82. University of Massachusetts Amherst
- 83. University of Massachusetts Boston

Michigan:

- 84. Central Michigan University
- 85. Eastern Michigan University
- 86. Ferris State University
- 87. Michigan State University
- 88. Oakland University
- 89. University of Michigan Ann Arbor
- 90. Wayne State University
- 91. Western Michigan University

Minnesota:

- 92. Mankato State University
- 93. Saint Cloud State University
- 94. University of Minnesota Duluth
- 95. University of Minnesota Twin Cities

Mississippi:

- 96. Mississippi State University
- 97. University of Southern Mississippi

Missouri:

- 98. Southwest Missouri State
- 99. University of Missouri Columbia
- 100. University of Missouri Kansas City
- 101. University of Missouri Saint Louis

Montana:

102. Montana State University

Nebraska:

- 103. University of Nebraska Lincoln
- 104. University of Nebraska Omaha

Nevada:

105. University of Nevada - Las Vegas

New Hampshire:

106. University of New Hampshire

New Jersey:

- 107. Kean College of New Jersey
- 108. Montclair State College
- 109. Rutgers The State University of New Jersey New Brunswick

New Mexico:

- 110. New Mexico State University
- 111. University of New Mexico

New York:

- 112. City University of New York Bernard M. Baruch College
- 113. City University of New York Brooklyn College
- 114. City University of New York City College

- 115. City University of New York College of Staten Island
- 116. City University of New York Hunter College
- 117. City University of New York New York City Technical College
- 118. City University of New York Queens College
- 119. State University of New York Albany
- 120. State University of New York Binghamton
- 121. State University of New York Buffalo
- 122. State University of New York Stony Brook
- 123. State University of New York College at Buffalo

North Caroling:

- 125. Appalachian State University
- 126. East Carolina University
- 127. North Carolina State University
- 128. University of North Carolina Chapel Hill
- 129. University of North Carolina Charlotte
- 130. University of North Carolina Greensboro

North Dakota:

- 131. University of North Dakota
- 132. North Dakota State University

Ohio:

- 133. Bowling Green State University
- 134. Cleveland State University
- 135. Kent State University
- 136. Miami University
- 137. Ohio State University
- 138. Ohio University
- 139. University of Akron
- 140. University of Cincinnati
- 141. University of Toledo
- 142. Wright State University
- 143. Youngstown State University

Oklahoma:

- 144. Central State University
- 145. Oklahoma State University
- 146. University of Oklahoma

Oregon:

- 147. Oregon State University
- 148. Portland State University
- 149. University of Oregon

Pennsylvania:

- 150. Pennsylvania State University
- 151. Indiana University of Pennsylvania
- 152. Temple University
- 153. University of Pittsburgh

Rhode Island:

154. University of Rhode Island

South Carolina:

- 155. Clemson University
- 156. University of South Carolina

Tennessee:

- 157. Memphis State University
- 158. Middle Tennessee State University
- 159. University of Tennessee Knoxville

Texas:

- 160. Lamar University
- 161. North Texas State University
- 162. Sam Houston State University
- 163. Southwest Texas State University
- 164. Steven F. Austin State University
- 165. Texas A & M University
- 166. Texas Tech University

- 167. University of Houston
- 168. University of Texas Austin
- 169. University of Texas Arlington
- 170. University of Texas El Paso
- 171. University of Texas San Antonio

<u>Utah</u>:

- 172. University of Utah
- 173. Utah State University
- 174. Weber State University

Vermont:

175. University of Vermont

Virginia:

- 176. George Mason University
- 177. James Madison University
- 178. Old Dominion University
- 179. University of Virginia
- 180. Virginia Commonwealth University
- 181. Virginia Polytechnic Institute and State University

Washington:

- 182. University of Washington
- 183. Washington State University

West Virginia:

- 184. Marshall University
- 185. West Virginia University

Wisconsin:

- 186. University of Wisconsin Madison
- 187. University of Wisconsin Eau Claire
- 188. University of Wisconsin Milwaukee
- 189. University of Wisconsin Oshkosh
- 190. University of Wisconsin Whitewater

Wyoming:

191. University of Wyoming

APPENDIX H

Additional Variable Comparison Data

Table 87: Accountancy Responsibility by Years Served: Chi Square Data

Count Row Pct	•				Row
Col Pct	0-5	6-10	11-15	16+	. Total
RSACCT/Executiv					7
Minor/None	4	2	1		7
,	57.1	28.6	14.3	-	7.8
	9.1	8.3	7.7		
Shared			1	2	3 3.3
			33.3	66.7	3.3
			7.7	22.2	
Major/Complete	40	22	11	7	80
, ,	50.0	27.5	13.8	8.8	88.9
	90.9	91.7	84.6	77.8	
Col Total	44	24	13	9	→ 90
	48.9	26.7	14.4	10.0	100.0
Chi Square Valu	ie 13.64	096 D.F	. 6 Sign	ificance	.03391

Table 88: CFO Rank Compared to Other Vice Presidents by Region: Chi Square Data

Count Row Pct Col Pct	Northeast	South	Midwest	West	Row _ Total
RANKB/Academic Somewhat/Much Lower	2 28.6 11.1			5 71.4 19.2	5.7
Equal	11 14.9 61.1	23 31.1 54.8	23 31.1 62.2	17 23.0 65.4	74 60.2
Somewhat/Much Higher	5 ' 11.9 27.8	19 45.2 45.2	14 33.3 37.8	9.5 15.4	42 34.1
Col Total	18 14.6	42 34.1	37 30.1	26 21.1	123 100.0
Chi Square Value	e 18.7040	5 D.F	. 6 Sign	ificance	.00469

Table 89: CFO Board Relations Compared to the President by Region: Chi Square Data

Count Row Pct					Row
Col Pct	Northeast	South	Midwest	West	Total
CFOVPRES/Execu					
Somewhat/Much	7	32	26	15	80
Less	8.8	40.0	32.5	18.8	87.0
	87.5	94.1	83.9	78.9	
Equal		2	5	4	111
•		18.2	45.5	36.4	12.0
		5.9	16.1	21.1	
Somewhat/Much	1				1
More	100.0				1.1
	12.5				
Col Total	8	34	31	19	92
	8.7	37.0	33.7	20.7	100.0
Chi Square Val	ue 14.646	77 D.F	. 6 Sign	ificance	.02319

Table 90: CFO Involvement in Student Policy by Region: Chi Square Data

Count Row Pct	·				Row
Col Pct	Northeast	South	Midwest	West	Total
STUDENT/Execut	ive				
None/Low	7	22	26	7	62
	11.3	35.5	41.9	11.3	64.6
	77.8	62.9	78.8	36.8	
Moderate	1	11	5	11	28
	3.6	39.3	17.9	39.3	29.2
	11.1	31.4	15.2	57.9	
High/Very High	1	2	2	1	6
	16.7	33.3	33.3	16.7	6.3
	11.1	5.7	6.1	5.3	
Col Total	9	35	33	19	l . 96
	9.4	36.5	34.4	19.8	100.0

Significance .04971

Chi Square Value 12.60762 D.F. 6

Table 91: Importance of Business Services by Region: Chi Square Data

Row Pct Col Pct	Northeast	South	Midwest	West	Row Total
IBUSSER/Fina					
Minor/No	1		3		4
	25.0 10.0		75.0 7.7		3.6
Medium	5 10.9 50.0	11 23.9 26.8	20 43.5 51.3	10 21.7 50.0	46 41.8
High/Critica	1 4 6.7 40.0	30 50.0 73.2	16 26.7 41.0	10 16.7 50.0	60 54.5
Col Total	10 9.1	41 37.3	39 35.5	20 18.2	110 100.0

Table 92: Importance of Finance by Region: Chi Square Data

Chi Square Value 12.99249 D.F. 6 Significance .04316

0 4	OIII	Squai & Date			
Count Row Pct Col Pct	Northeast	South	Midwest	West	Row Total
IFIN/Finance Minor/No					
Medium	7 18.4 58.3	8 21.1 20.0	16 42.1 44.4	7 18.4 33.3	38 34.9
High/Critical	5 7.0 41.7	32 45.1 80.0	20 28.2 55.6	14 19.7 66.7	71 65.1
Col Total	12 11.0	40 36.7	36 33.0	21 19.3	109 100.0
Chi Square Val	ue 8.279	14 D.F.	. 3 Sign	ificance	.04058

Table 93: CFO Board Relations Compared to President by Budget: Chi Square Data

Count Row Pct	(1	Budget in Mil	llions)		Row
Col Pct	1-100	101-300	301-600	601+	Total
CFOVPRES/Execut	tive				
Somewhat/Much	31	33	11	5	80
Less	38.8 93.9	41.3 91.7	13.8 78.6	6.3 55.6	87.0
Equal	2 18.2 6.1	3 27.3 8.3	3 27.3 21.4	3 27.3 33.3	11 12.0
Somewhat/Much More				1 100.0 11.1	1.1
Col Total	33 35.9	36 39.1	14 15.2	9.8	92 100.0
Chi Square Val	ue 16.47	779 D.F.	. 6 Sigı	nificance	.01141

Table 94: CFO Involvement in Academic Policy by Budget: Chi Square Data

	J Jq				
Count Row Pct					Row
Col Pct	0-100	101-300	301-600	601+	Total
ACADEMIC/Execut	tive				
None/Low	30	32	12	3	77
	39.0	41.6	15.6	3.9	80.2
	85.7	86.5	80.0	33.3	
Moderate	5	4	2	5	16
	31.3	25.0	12.5	31.3	16.7
	14.3	10.8	13.3	55.6	
High/Very High		1	1	1	3
		33.3	33.3	33.3	3.1
		2.7	6.7	11.1	
Col Total	35	37	15	9	96
	36.5	38.5	15.6	9.4	100.0
Chi Square Val	ue 15.48	3042 D.F.	6 Sign	ificance	.01683

Table 95: Importance of Business Services Budget: Chi Square Data

Count Row Pct	(1	Budget in Mil	llions)		Row
Col Pct	1-100	101-300	301-600	601+	Total
IBUSSER/Finance	e				
Minor/No	1	1		2	4
	25.0	25.0		50.0	3.6
	2.4	2.3		20.0	
Medium	15	21	4	6	46
	32.6	45.7	8.7	13.0	41.8
	36.6	48.8	25.0	60.0	
High/Critical	25	21	12	2	60
	41.7	35.0	20.0	3.3	54.5
	61.0	48.8	75.0	20.0	
Col Total	41	43	16	10	110
	37.3	39.1	14.5	9.1	100.0

Chi Square Value 14.94086 D.F. 6 Significance .02072

Table 96: CFO Board Relations Compared to President by Budget: Chi Square Data

Count Row Pct	()	Budget in Mi	llions)		Row
. Col Pct	1-100	101-300	301-600	601+	Total
CFOVPRES/Finance Somewhat/Much	ce 44	45	17	9	115
Less	38.3 97.8	39.1 93.8	14.8 94.4	7.8 75.0	93.5
Equal	1 12.5 2.2	3 37.5 6.3	1 12.5 5.6	3 37.5 25.0	6.5
Somewhat/Much More					
Col Total	45 36.6	48 39.0	18 14.6	12 9.8	123 100.0

Chi Square Value 8.13928

D.F. 3

Significance .04322

Table 97: CFO Rank Compared to Provost by Undergraduate Enrollment: Chi Square Data

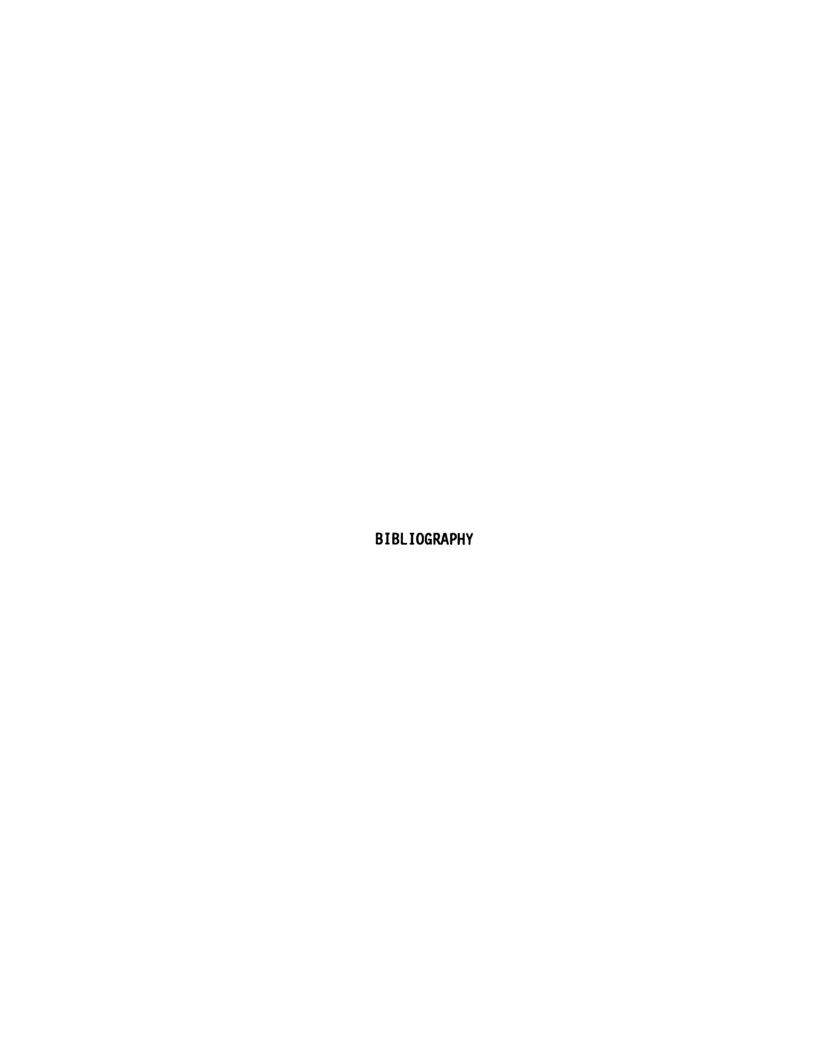
Count				
Row Pct				Row
Col Pct	0-15,000	16-20,000	20,000+	Total
RANKA/Executive		,		
Somewhat/Much	37	12	6	55
Lower	67.3	21.8	10.9	59.1
	63.8	48.0	60.0	
Equal	21	9	3	33
	63.6	27.3	9.1	35.5
	36.2	36.0	30.0	
Somewhat/Much		4	1	5
Higher		80.0	20.0	5.4
		16.0	10.0	
Col Total	58	25	10	93
	62.4	26.9	10.8	100.0

Chi Square Value 9.59737 D.F. 4 Significance .04778

Table 98: CFO Board Relations Compared to President by Undergraduate Enrollment: Chi Square Data

Count			•	_
Row Pct				Row
Col Pct	0-15,000	16-20,000	20,000+	Total
CFOVPRES/Finan	ce			
Somewhat/Much	, 71	29	15	115
Less	61.7	25.2	13.0	93.5
	95.9	96.7	78.9	
Equal	3	1	4	8
	37.5	12.5	50.0	6.5
	4.1	3.3	21.1	
Somewhat/Much More				
Col Total	74	30	19	123
COI IOCAI	60.2	24.4	15.5	100.0

Chi Square Value 7.83970 D.F. 2 Significance .01984



BIBLIOGRAPHY

- Anderson, Scarvia B., et al. <u>Encyclopedia of Educational Evaluation</u>. San Francisco: Jossey-Bass, Inc., Publishers, 1975.
- Babbie, Earl. <u>The Practice of Social Research</u>, 5th edition. Belmont, California: Wadsworth Publishing Company, 1989.
- Borg, Walter R. and Gall, Meredith. <u>Educational Research</u>. New York: David McKay Company, Inc., 1971.
- Bohrnstedt, George W. and Knoke, David. <u>Statistics for Social Data Analysis</u>. Itasca, Illinois: F.E. Peacock Publishers, Inc., 1988.
- Calver, Richard A. "The Profile, Functions, Behaviors, and Effectiveness of Chief Business Officers in American Public Community Colleges." Ph.D. dissertation, Virginia Polytechnic Institute and State University, 1973.
- Calver, Richard A. "The Role and Functions of the Chief Business Officers in Community Colleges." Paper presented at a conference of the National Council of Community College Business Officials. Dallas, Texas, November 1, 1984.
- Calver, Richard A. and Vogler, Daniel E. "Chief Business Officers' Functions: Responsibilities and Importance." <u>Community College Review</u>. Fall, 1985, 13, (2), 37-42.
- Campbell, Dale F. "Business Officials Contribute Much to Excellence."

 <u>Community and Junior College Journal</u>, 1984, 54 (5) 7.
- Campbell, Dale F., ed. "Strengthening Financial Management" in New Directions for Higher Education, no. 50, v. 13, n.2, June, 1985.
- Chaffee, Ellen E. "Successful Strategic Management in Small Private Colleges." Journal of Higher Education, 1984, 55 (2), 212-241.
- Cohen, Michael D. and March, James G. <u>Leadership and Ambiguity: The American College President</u>, 2nd ed. Boston: Harvard Business School Press, 1974.
- College and University Business Administration. 2 vols. Washington, D.C. National Association of College and University Business Officers, 1975-1983.
- Dillman, D. A. <u>Mail and Telephone Surveys</u>. New York: John Wiley and Sons, 1978.

- Dressel, Paul L. <u>Handbook of Academic Evaluation</u>. San Francisco: Jossey-Bass Publishers, 1976.
- Floyd, Brenda L. "Preferred and Actual Characteristics of Public, Community, Junior and Technical College Chief Business Officers." Ph.D. dissertation, East Texas State University, 1983.
- Ginsberg, Sigmund G. "Politics, Priorities, and Partnership." American School and University, February 1978, pp. 70-75.
- Franzblau, Abraham N. <u>A Primer of Statistics for Non-Statisticians</u>. New York: Harcourt, Brace & World, Inc., 1958.
- Harrison, Nancy S. <u>Understanding Behavioral Research</u>. Belmont, Calif.: Wadsworth Publishing Company, Inc., 1979.
- Hungerman, Andrew J., III. "The Business Officer in Small Colleges: A 1980's Profile." Ph.D. dissertation, University of Pittsburgh, 1984.
- Javidpour, Ebrahim. "Perceptions of Actual and Ideal Roles of Business officers in Selected Institutions of Higher Education." Ph.D. dissertation, George Peabody College for Teachers of Vanderbuilt University, 1981.
- Jenkins, William A. "The Role of Chief Financial Officers in Large Public Universities: A Comparative Study." Washington, D.C.: National Association for College and University Business Officers, 1978.
- Jenkins, William A. "The Role of the Chief Financial Officer in Large Pubic Universities." <u>Business Officer</u>, January 1985, pp. 27-30.
- John Minter Associates, Inc. <u>The Higher Education Market: Patterns of Responsibility. Purchasing and Influence. A Market Study</u>. Boulder: 1983.
- Keller, Charlene L. "The Chief Business Officer in Higher Education." Ph.D. dissertation, University of Texas at Austin, 1985.
- Knaugh, E.F. <u>The College Business Manager</u>. New York: New York University Press, 1955.
- LeCroy, R. Jan. "Business Officials Share Buried Talents." <u>Community and Junior College Journal</u>. February, 1984, 54 (5), 37-39.
- Miller, Danny, Friesen, Peter H., and Mintzberg, Henry. <u>Organizations:</u> <u>A Quantum View</u>. New Jersey: Prentice-Hall, Inc., 1984.
- Mintzberg, Henry. <u>Power In and Around Organizations</u>. N. Jersey: Prentice-Hall, Inc., 1983.
- Moore, Theresa C. and Sacchetti, Raymond D., Eds. <u>Graduate and Professional Programs: An Overview</u>. Princeton, New Jersey: Peterson's Guides, 1988.

- Norusis, Marija J. <u>Introductory Statistics Guide: SPSSx</u>. New York: McGraw-Hill Book Company, 1983.
- Orenstein, Alan and Phillips, William R.F. <u>Understanding Social Research</u>. Boston: Allyn and Bacon, Inc., 1978.
- Peck, R. D. "The Entrepreneurial Business Officer." <u>Business Officer</u>. 1984, 18, (4) 31-34.
- Robbins, L. F. and Nance, P. K. <u>Business Management: Survey of Chief Business Officers</u>. (United States Office of Educational Report OE-53027). Washington, C.C.: National Association of College and University Officers, 1982.
- Sarbin, T. R. and Allen, V. L. "Role Theory" in L. Gardner and L. Elliot, eds. <u>The Handbook of Social Psychology</u>. Reading, Massachusetts: Addison-Wesley Publishing Company, 1968.
- Setoodeh, Hassan. "A Study of the Position of the Chief Financial Officer in Higher Education Institutions." Ph.D. dissertation, North Texas State University, 1981.
- Silver, George. "A History and Analysis of the Duties, Functions and Professional Status of State College Business Managers in New Jersey." Ed.D. thesis, Temple University, 1964.
- Torregrosa, Constance H., ed. <u>1988 Higher Education Directory</u>. Falls Church, Virginia: Higher Education Publications, Inc., 1988.
- Twombly, Susan B. "Career Lines of Top-Level Two-Year College Administrators: Implications for Leadership in a New Era." Paper presented at the annual meeting of the Association for the Study of Higher Education. San Antonio, Texas, February 20-23, 1986.
- Wallenfeldt, E. C. "American Higher Education Servant of the People or Protector of Special Interests?" <u>Contributions to the Study of Education</u>. no. 9. Westport, Connecticut: Greenwood Press, 1983.
- Whims, Frederick R. A Descriptive Study to Establish and Clarify the Functions, Skills and Organizational Relationships of Chief Business Officers in Selected Michigan Comprehensive Community Colleges." Ph.D. dissertation, Michigan State University, 1974.
- Wizenbach, Lanora F., ed. <u>College and University Business Administration</u>, 4th ed. Washington, D. C.: National Association for College and University Business Officers, 1982.
- Wombles, James R. "The Academic Vice President in the State University." Ph.D. dissertation, Indiana University, 1971.
- Zald, Mayer N., ed. <u>Power in Organizations</u>. Nashville: Vanderbuilt University Press, 1970.