2008

An Analysis Of Florida Public Community College Foundations' Performance Measures From 2002-2004

Karen Sanders
University of Central Florida

AN ANALYSIS OF FLORIDA PUBLIC COMMUNITY COLLEGE FOUNDATIONS' PERFORMANCE MEASURES FROM 2002-2004

by

KAREN M. SANDERS
B.S. Embry-Riddle Aeronautical University, 1990
M.B.A. University of Central Florida, 1992

A dissertation submitted in partial fulfillment of the requirements
for the degree of Doctor of Education
in the Department of Educational Research, Technology, and Leadership
in the College of Education
at the University of Central Florida
Orlando, Florida

Fall Term
2008

Major Professor: Debbie Hahs-Vaughn
William Bozeman

ABSTRACT

The focus of this research was to examine the performance of Florida public community college foundations from 2002-2004 using performance ratios. The findings from this study may assist community college foundation leaders to better understand the performance of their own organizations, compare this performance to other similar organizations, establish relative performance standards, and influence the strategic initiatives to improve an existing foundation.

This study was designed to research the financial performance measurement ratios for the 28 public community college foundations in Florida. Ex post facto data that were publicly available were utilized to acquire the information needed for the statistical analyses; therefore, the population was comprised of all 28 Florida community college foundations. Data were collected from each institution's Form 990.

A total of 27 ratios were calculated by year for 2002, 2003, and 2004 and were categorized into 6 areas: (a) measures of fiscal performance, (b) measures of fundraising efficiency, (c) measures of public support, (d) measures of adequacy of resources to support mission, (e) measures of use of resources to support mission, and (f) measures of investment performance and concentration. The study included benchmarking data in the form of descriptive statistics for these ratios and comprehensive analysis. In addition, three repeated measures analysis of variance models were computed to determine if the *contributions and grants*, *fundraising expense*, and *program service expense ratios* varied over time. There were no mean differences over time during the three-year period from 2002 to 2004.

To my family

ACKNOWLEDGMENTS

Completion of this dissertation has been a most rewarding, yet challenging and humbling endeavor. Although many feel that a dissertation is an individual undertaking, this research could not have been successfully accomplished without the collaborative efforts of many who gave of their time and expertise.

Thank you to Dr. William Bozeman and Dr. Debbie Hahs-Vaughn, co-chairs of this committee, whose commitment, advice, feedback, and unwavering support were essential and instrumental. Thank you also to Dr. Walter Doherty, Mr. Robert Holmes, and Dr. Jeffrey Kaplan who served willingly on this committee and provided valuable guidance and suggestions. A special thank you is extended to Dr. Mary Ann Lynn who always exhibited a positive attitude and an eagerness to help and to Ann Magaha who extolled the virtues of pursuing a graduate education.

It was a privilege to participate in the Daytona State College Beacon II Leadership Program through which this study was realized. Thank you to the administration, faculty and staff of Daytona State for creating this opportunity and especially to the cohort: Alice, Linda, Mary, Stan, and Ted, who shared this journey.

This achievement would not have been possible without the love and support of a very dear and special family. To those who have sacrificed the most through this process, Matthew and Ray, thank you for your never-ending encouragement, inspiration, patience and understanding. Mom, Sandy, Dave, and Caroline, thank you for your steadfast optimism. You all are appreciated more than you can ever know.

TABLE OF CONTENTS

LIST OF FIGURES ix

LIST OF TABLES x

CHAPTER 1 THE PROBLEM AND ITS CLARIFYING COMPONENTS 1
- Introduction 1
- Purpose of the Study 2
- Statement of the Problem 2
- Research Questions 3
- Definition of Terms 3
- Design of the Study 10
- Significance of the Study 10
- Delimitations 11
- Limitations 12
- Organization of the Dissertation 12

CHAPTER 2 REVIEW OF RESEARCH AND RELATED LITERATURE 14
- Introduction 14
- Development, Fundraising, and Institutional Advancement 15
- Purpose of a Foundation 16
- Types of Foundations 18
- History of Higher Education Fundraising 18
  - 1636-1900 19
  - 1900-1958 20
  - 1958-1980 22
  - 1980-2000 24
- Evaluation of Fundraising Effectiveness 25
- Methods to Measure Effectiveness 28
  - Evaluation Formulas 32
- Summary 57

CHAPTER 3 METHODOLOGY 58
- Introduction 58
- Statement of the Problem 58
- Research Questions 59
- Study Population 59
- Variables, Secondary Data Sources, and Instrumentation 59
- Data Collection Procedures 61
  - Calculation of Ratios 62
  - Measures of Fiscal Performance 63
  - Measures of Fundraising Efficiency 64
  - Measures of Public Support 65

Measures of Adequacy of Resources to Support Mission 66
Measures of Use of Resources to Support Mission 67
Measures of Investment Performance and Concentration 68
Data Analysis Procedures 69
Analysis for Research Question 1 69
Analysis for Research Questions 2, 3, and 4 71
Summary 72

CHAPTER 4 ANALYSIS OF THE DATA 73
Introduction 73
Research Question 1 73
Measures of Fiscal Performance 73
Measures of Fundraising Efficiency 80
Measures of Public Support 83
Measures of Adequacy of Resources to Support Mission 89
Measures of Use of Resources to Support Mission 97
Measures of Investment Performance and Concentration 106
Research Question 2 112
Research Question 3 114
Research Question 4 117
Summary 119

CHAPTER 5 SUMMARY, DISCUSSION OF FINDINGS, AND RECOMMENDATIONS 120
Introduction 120
Purpose of the Study 120
Statement of the Problem 120
Design of the Study 121
Summary and Discussion of Findings 122
Research Question 1 122
Research Question 2 138
Research Question 3 141
Research Question 4 143
Recommendations for Future Research 145

APPENDIX A FINANCIAL PERFORMANCE MEASUREMENT RATIOS AND PRELIMINARY CATEGORIES 147

APPENDIX B PERFORMANCE MEASUREMENT RATIOS BY PURPOSE 149

APPENDIX C PERFORMANCE MEASUREMENT RATIOS WITH IRS FORM 990 CALCULATIONS 151

APPENDIX D PERFORMANCE MEASUREMENT RATIOS USED IN DATA ANALYSIS 153

APPENDIX E PERFORMANCE MEASUREMENT RATIOS BY CATEGORY OF ANALYSIS 157

APPENDIX F FLORIDA COMMUNITY COLLEGE FOUNDATIONS AND SERVICE AREAS 160

APPENDIX G INSTITUTIONAL REVIEW BOARD APPROVAL 163

APPENDIX H DATA COLLECTION WORKSHEET AND SPSS INPUT NUMBERS 165

APPENDIX I INTERNAL REVENUE SERVICE FORM 990 FOR YEAR 2004 167

LIST OF REFERENCES 174

LIST OF FIGURES

Figure 1. Contributions and Grants Ratio by Year (Filtered to Exclude Cases >1.0) 88

Figure 2. Fundraising Expense Ratio by Year 102

Figure 3. Program Services Ratio by Year 104

LIST OF TABLES

Table 1 Comparison of Criteria Important for Evaluating the Fundraising Program 29

Table 2 Evaluation Methods as Judged by Mississippi Community Colleges 32

Table 3 Ratio Analysis for Education Institutions for 1993 38

Table 4 Selected Ratios Analyzed for Education Institutions for 1999 39

Table 5 Ratio Analysis for University Foundations for 1999 40

Table 6 Trend Analysis for Education, Instruction, and Related Activities 43

Table 7 Ratio Analysis for Organizations with Revenues between $1,000,000 and $1,999,999 for the Arts, Culture, and Humanities Sector for 2003 45

Table 8 Selected Ratios Analyzed for Human Services Organizations for 1999 46

Table 9 Ratio Analysis for Social Welfare Organizations for 2001 47

Table 10 Ratio Analysis for Animal Rescue Organizations for 2003 49

Table 11 Relationship of Import Sheet Items to Research Questions 72

Table 12 Descriptive Statistics for Measures of Fiscal Performance Ratios 74

Table 13 Descriptive Statistics for Measures of Fundraising Efficiency Ratios 81

Table 14 Descriptive Statistics for Measures of Public Support Ratios 84

Table 15 Descriptive Statistics for Measures of Adequacy of Resources to Support Mission Ratios 90

Table 16 Descriptive Statistics for Measures of Use of Resources to Support Mission Ratios 98

Table 17 Descriptive Statistics for Measures of Investment Performance and Concentration Ratios 107

Table 18 Test of Within Subjects Effects--Contributions and Grants Ratio 114

Table 19 Test of Within Subjects Effects--Fundraising Expense Ratio 116

Table 20 Test of Within Subjects Effects--Program Service Expense Ratio 119

CHAPTER 1
THE PROBLEM AND ITS CLARIFYING COMPONENTS

Introduction

Financial support has become a significant concern for American community college administrators and business officers (Schuyler, 1997). Community colleges have historically generated operating revenue from several different sources including local, state, and federal funding, local taxation, and student fees and tuition reflective of enrollment (Jenkins, 1997; Schuyler). Unfortunately, this public support has been in a state of decline that was likely to continue (Meaders, Carrier, & Keener, 2003; Schuyler). As a result, community colleges were encouraged to find alternative funding sources such as those provided by the colleges' foundations (Daniel, 2002; Jenkins).

Many community colleges have embraced fundraising as evidenced by the creation of direct support organizations, usually incorporated, to receive tax-deductible contributions under Section 501(c)(3) of the Internal Revenue Code (Schuyler, 1997). "These foundations are independent legal entities guided by the mission of soliciting private monetary contributions and investing them for the benefit of their affiliated colleges" (Schuyler, ¶1). The solicitation and procurement of private donations to fund special initiatives or to balance the institution's budget has long been practiced by private colleges and universities (Kelley, 1999). Since the late 19th century, institutionally-related foundations have grown in number and size in public colleges and universities (Kelley). These foundations are critical to the future of the community college with respect to the procurement of private support by creating relationships within the

community and by involving the community in the activities of the institution (Grace, 1996; Kelley; Meaders, Carrier, & Keener, 2003; Schuyler).

Purpose of the Study

The focus of this research was to examine the performance of Florida public community college foundations from 2002-2004 using performance ratios. The findings from this study may assist community college foundation leaders to better understand the performance of their own organizations and compare this performance to other similar organizations. This information may then be used to establish relative performance standards and influence the strategic initiatives to improve an existing foundation.

Statement of the Problem

Public community colleges have long relied upon state and federal funding to provide programs and educational opportunities for their students and constituents. Unfortunately, these sources of public funding have become less dependable, and competition for available dollars has increased. As a result, community colleges have begun soliciting private funds in order to maintain or expand the quality and range of services offered to students.

Public community college foundations are relatively new to fundraising when compared with private universities or other nonprofit entities that have fundraising histories spanning hundreds of years. As such, evaluation has not been emphasized, and very little literature pertaining to the evaluation of public community college foundation

fundraising was available for review. The review of the literature did not reveal any prior studies of public community college foundation performance ratios.

Research Questions

The following research questions guided this study:

1. What are the performance measurement ratios for community college foundations in Florida for 2002, 2003, and 2004?
2. Does the *contributions and grants ratio* (total contributions divided by total revenue) differ, on average, from 2002 to 2004?
3. Does the *fundraising expense ratio* (fundraising expenses divided by total expenses) differ, on average, from 2002 to 2004?
4. Does the *program service expense ratio* (program service expenses divided by total expenses) differ, on average, from 2002 to 2004?

Definition of Terms

Terminology in this study was based upon the following definitions:

Accounts payable--a calculation derived by taking the sum of accounts payable and accrued expenses (IRS Form 990, line 60 (B)) and grants payable (IRS Form 990, line 61 (B)) as of year end.

Average monthly expenses--a calculation derived by dividing the organization's total expenses for the year (Form 990, line 17) by 12.

Average total assets--a calculation derived by taking the sum of total assets at the beginning of the year (IRS Form 990, line 59 (A)) and total assets at the end of the year (IRS Form 990, line 59 (B)) and dividing that amount by 2.

Average total debt--a calculation derived by taking the sum of total liabilities at the beginning of the year (IRS Form 990, line 66 (A)) and total liabilities at the end of the year (IRS Form 990, line 66 (B)) and dividing that amount by 2.

Cash--a numerical value derived from the IRS Form 990, line 45 (B) that indicates the organization's non-interest-bearing cash position at year end.

Cash and savings--a calculation derived by taking the sum of non-interest-bearing cash investments (IRS Form 990, line 45 (B)) and savings and temporary cash investments (IRS Form 990, line 46 (B)) at year end.

Charity--an organization established for the purpose of assisting individuals or organizations that need financial assistance.

Community college--a public institution of higher education recognized by the State of Florida, Division of Community Colleges.

Contributions and grants ratio--a calculation derived by dividing an institution's total contributions by its total revenue.

Direct public support--a numerical value derived from the IRS Form 990, line 1a, that indicates the revenues attributed to contributions, gifts, grants, and bequests that the charity received directly from the public.

Extraordinary gift--a gift that is extraordinary in value when compared to the mean, median, or mode of all gifts received by the foundation. An example would be a one-time bequest.

Form 990--the annual information return form for community college foundations exempt from income tax as recognized under Internal Revenue Code 501(c)(3).

Foundation--a direct support organization as defined by Florida State statutes to solicit and receive private cash and noncash contributions to benefit a specific community college.

Fund balance (net assets)--a numerical value derived from the IRS Form 990, line 73(B) that indicates the organization's holdings at year end that are not offset by liabilities. Educational foundations categorize net assets as unrestricted, temporarily restricted, and permanently restricted.

Fundraising expense ratio--a calculation derived by dividing an institution's fundraising expenses by its total expenses

Fundraising expenses--a numerical value derived from the IRS Form 990, line 15 indicating the amount that an institution spent to perform fundraising activities. The value on line 15 is equivalent to the value on line 44, column D which is the summation of the institution's functional expense breakdown attributed to fundraising, excluding program services and management and general expenses.

Land, property, plant, and equipment--a numerical value derived from the IRS Form 990, line 57 c (B) indicating the basis of land, buildings, and equipment less accumulated depreciation.

Management and general expense--a numerical value derived from the IRS Form 990, line 14 that indicates the expenses associated with overall operation of the organization such as personnel, leases, and supplies, but not including expenses directly incurred due to fundraising.

Marketable securities--a numerical value derived from the IRS Form 990, line 46 (B) that is equivalent to savings and temporary cash investments.

Net assets (fund balance)--a numerical value derived from the IRS Form 990, line 73(B) that indicates the organization's holdings at year end that are not offset by liabilities. Educational foundations categorize net assets as unrestricted, temporarily restricted, and permanently restricted.

Net gain or loss on sale of securities--a numerical value derived from the IRS Form 990, line 8 c (A) that indicates the amount of annual revenue attributable to gain or loss on sale of assets other than inventory.

Nonprofit organization/Nonprofit--a public charity or a private foundation granted tax-exempt status by the Internal Revenue Service.

Payments to affiliates--a numerical value derived from the IRS Form 990, line 16 that indicates the amount paid to an organization that is closely affiliated to the reporting organization such as a state or national (parent) organization.

Performance measurement ratio--one of several calculations used to assess the financial condition and operations of an organization. Calculations recognized by Ritchie and Kolodinsky (2003) may be found in Appendix A. Those recognized by Greenlee and Bukovinsky (1998) may be found in Appendix B. Ratios calculated by McLean and Coffman (2004) may be found in Appendix C. Calculations utilized within this study may be found in Appendix D.

Program service expense ratio--a calculation derived by dividing an institution's program service expenses by its total expenses.

Program service expenses--a numerical value derived from the IRS Form 990, line 13 indicating the total amount expended for program services. The value on line 13 is equivalent to the value on line 44, column B which is the summation of the institution's functional expense breakdown attributed to program support, excluding fundraising and management and general expenses.

Receivables--a calculation derived by taking the sum of the following: accounts receivable less allowance for doubtful accounts (IRS Form 990, line 47 c (B)), pledges receivable less allowance for doubtful accounts (IRS Form 990, line 48 c(B)), grants receivable (IRS Form 990, line 49), receivables from officers, directors, trustees, and key employees (IRS Form 990, line 50 (B)), and other notes and loans receivable less allowance for doubtful accounts (IRS Form 990, line 51 c (B)).

Restricted endowment/Endowment/Permanently restricted--a numerical value derived from the IRS Form 990, line 69 (B) indicating the organization's net assets that were permanently restricted at year end.

Return on securities--a numerical value derived from the IRS Form 990, line 5 that indicates the amount of dividends and interest earned by the charity during the year from investments in securities.

Savings--a value derived from the IRS Form 990, line 46 (B) that indicates the organization's savings and temporary cash investments at year end.

Total assets--a numerical value derived from the IRS Form 990, line 59(B) that indicates the end of year assets that were held by the organization. Line 59(B) is the summation of lines 45 (B) through 58 (B) including, but not limited to cash, savings, accounts receivable, investments, and land, buildings, and equipment. Total assets is equal to the sum of net assets plus liabilities.

Total contributions other than government grants--a calculation derived by subtracting government contributions (grants) received during the year (IRS Form 990, line 1 c) from total contributions, gifts, grants, and similar amounts received (IRS Form 990, line 1 d).

Total contributions/Revenue from contributions and grants--a numerical value derived from the IRS Form 990, line 1d, indicating the total amount received by the institution in the form of contributions, gifts, grants, and similar amounts. Line 1d is the summation of lines 1a, 1b, and 1c which itemize direct public support, indirect public support, and government contributions (grants).

Total expenses/Expenses--a numerical value derived from the IRS Form 990, line 17, indicating the institution's total expenses. Line 17 is the summation of lines 16, payments to affiliates, and line 44, column A, the institution's total functional expenses.

Total revenue/Revenues--a numerical value derived from the IRS Form 990, line 12, indicating the institution's total revenues. Line 12 is the summation of lines 1d, 2, 3, 4, 5, 6c, 7, 8d, 9c, 10c, and 11 which itemize total contributions, gifts, grants, and similar amounts; program service revenue including government fees and contracts; membership dues and assessments; interest on savings and temporary cash investments; dividends and interest from securities; net rental income or loss; other investment income; net gain or loss from sale of assets other than inventory; net income or loss from special events; and other revenue.

Total revenue available for programs--a numerical value derived from the IRS Form 990 by subtracting management and general expenses (line 14), fundraising expenses (line 15), and payments to affiliates (line 16) from total revenue (line 12). This value represents the portion of annual revenues that could be utilized for program expenses that year.

Total revenue minus total expenses--a calculation derived by subtracting total expenses (IRS Form 990, line 17) from total revenue (IRS Form 990, line 12).

Total securities--a numerical value derived from the IRS Form 990, line 54(B) that indicates the book value (market value) of assets that were invested in securities as of year end. Securities include common and preferred stocks, bonds, governmental obligations, and mutual funds.

Design of the Study

This study was designed to research the financial performance measurement ratios for the 28 public community college foundations in Florida. Ex post facto data that were publicly available were utilized to acquire the information needed for the statistical analyses; therefore, the population was comprised of all 28 Florida community college foundations. Data were collected from each institution's Form 990, which was evaluated for a three year period including 2002, 2003, and 2004. This raw data was then utilized in the computation of 27 performance measurement ratios that were calculated by year for 2002, 2003, and 2004.

A total of 81 ratios (27 ratios for three years) were calculated. To answer Research Question 1, descriptive statistics were calculated. To answer Research Questions 2-4, a repeated measures analysis of variance was computed to determine if the *contributions and grants*, *fundraising expense*, and *program service expense ratios* varied over time.

Significance of the Study

Funding for community colleges has become less reliable from public sources so community colleges have been required to seek alternative sources of financial support. A review of the literature revealed little evaluative information for higher education fundraising. On a broader scope, evaluation measures have been discussed for nonprofits as a general type of entity. An analysis of Florida community college foundation performance was not found. Fundraising for public higher education is distinct from other

nonprofit organizations because the foundations may be supported in part directly by the institutions that are benefited or indirectly by the state.

This study provided a comparative analysis of performance measures for Florida's 28 community college foundations. These measures may provide benchmarks to which each respective institution can compare its effectiveness and efficiency with others within the Florida community college system, and it may provide a basis upon which the institution can grow. By specifically reviewing the three primary performance ratios over time through evaluation of a repeated measures analysis of variance (one within subjects design), it was determined if performance differed, on average, over time. Institutions may want to further investigate causal factors for differences that may be affecting the performance either positively or negatively.

Delimitations

According to Creswell (2003), delimitations "narrow the scope of a study" (p. 148). The following delimitations were acknowledged in this study:

1. This study only included the foundations of the 28 public community colleges in Florida.
2. Data were obtained electronically from GuideStar.
3. Data were only used if a full 12-month reporting period was included in the Form 990. As a result, institution number 23 was excluded for year 2004.
4. This study includes 27 measures of nonprofit performance calculated by year for 2002, 2003, and 2004.

Limitations

Limitations, however, are potential weaknesses of the study (Creswell, 2003, p. 148). The following limitations are acknowledged in this study:

1. The results of this study may only be generalized to public community college foundations in Florida.
2. This study relied upon the accuracy of information submitted to the Internal Revenue Service and transmitted to GuideStar.
3. This study may have been affected by differing accounting practices and the recognition of gifts or assets by the foundation, other direct support organizations, or the community college.
4. This study may have been affected by the organizational structure of the institution. Some institutions may administer public grants through their foundations.
5. This study was limited by financial activity reported for the years 2002, 2003, and 2004. Results for these years may have been influenced by activities that commenced in prior years.

Organization of the Dissertation

This chapter served as an introduction to the study including the statement of the problem and the purpose of study. In addition, the research questions were introduced and vocabulary terms were defined. An overview of the methodology was described as well as the significance of the study and delimitations and limitations. Chapter 2 provides

a review of relevant literature. The research methodology is presented in Chapter 3 followed by an analysis of the data in Chapter 4. Chapter 5 contains a summary and discussion of the findings of the study as well as implications for practice and recommendations for future research.

CHAPTER 2
REVIEW OF RESEARCH AND RELATED LITERATURE

Introduction

This review of literature was written to document relevant literature and research on the subject of nonprofit organization evaluation methods. It has been organized to discuss (a) development, fundraising, and institutional advancement; (b) the purpose of a foundation; (c) types of foundations; (d) the history of higher education fundraising; (e) the evaluation of fundraising effectiveness; and (f) methods used to measure effectiveness.

Since the late 1990s, community colleges have experienced significant demand for their lower tuition rates due to population changes, restricted enrollment at four-year institutions, displaced workers needing retraining, and a threatened recession. At the same time, many states have seen a stall or reductions in higher education spending (Hendrick, Hightower, & Gregory, 2006). According to Lyall and Sell (2006), public colleges and universities have seen a decline in state funding from over 50% in the 1980s to approximately 30% in the first decade of 2000. At many institutions, tuition has been increased to offset the negative impact of budget cuts (Lyall & Sell). Cheslock and Gianneschi (2008) cautioned that less selective institutions that serve lower-income or underserved populations will reach their tuition thresholds first. At the point where tuition cannot be increased any further because of consumer demand, these institutions will be forced to find alternate sources of revenue such as private fundraising (Cheslock & Gianneschi).

Attracting external funding sources is essential for most community colleges today because public support, such as local, state, and federal funding, is in a state of decline (Jenkins, 1997; Schuyler, 1997). Private colleges and universities have a history of soliciting personal or corporate gifts, but due to reductions in government support, public institutions have had to embrace fundraising as well (Comegno, 2004). Community colleges patterned their fundraising programs and techniques after university and four-year institution models; however, most two-year college efforts are not as formal and structured as their four-year counterparts (Bass, 2003). "Instead, they view development more as a process than a structure, one that builds upon relationships and is embedded in the whole organization" (Anderson, 2003, p. 44).

As philanthropic giving became more sophisticated and diverse gift vehicles such as challenge grants, planned gifts, bequests, and endowments became more common, the need for separate foundations to manage the operations increased (Anderson, 2003). Evaluation and planning are essential as foundations mature and grow with their respective institutions. Therefore, the purpose of this review was to examine the theories and methods used to evaluate community college fundraising effectiveness.

Development, Fundraising, and Institutional Advancement

The terms "development," "fundraising," and "institutional advancement" have often been used interchangeably. However, slight nuances have differentiated the terms over time. Worth and Asp (1994) stated that "development" was first used in the 1920s at Northwestern University to describe functions of fundraising, student recruitment, and

marketing. Since then, development has become associated with fundraising, and "institutional advancement" has become the umbrella term to encompass fundraising, recruitment, marketing and communications, alumni, and other related activities (Glass & Jackson, 1998; Worth & Asp, 1994).

Several researchers have further differentiated development from fundraising. Development has been defined as the complex process of identifying institutional needs, identifying prospects, creating relationships, and providing stewardship. Fundraising is the actual solicitation of a gift (Grace, 1996). Glass and Jackson (1998) further defined development as an ongoing effort to contribute to the long-term growth of the college. Community colleges patterned their fundraising programs and techniques after university and four-year institution models. Most two-year college efforts, however, have not been as formal and structured as those of their four-year counterparts (Bass, 2003).

Purpose of a Foundation

Several reasons have been stated for the establishment of an institutionally-related foundation. Worth (1989) stated that a foundation provides a means whereby funds are held separate from the institution, and care can be taken to comply with donor restrictions. Also, a foundation could invest, manage, and spend funds without being restricted by a bureaucratic state system, policies, or procedures (Banks & Mabry, 1988; Worth). In addition, the foundation structure would permit the school to engage influential individuals in the institution's activities, often as members of the board of directors or as fundraisers (Worth). On a broader scope, a foundation was said to allow

all members of the community and alumni to be engaged in 'their' community college (Banks & Mabry).

Bass (2003) found that the organizational structure of a community college foundation allowed it to recognize donors, ensure that donor intent was honored, monitor fund use, provide fiduciary oversight, and engage the community in the culture of the institution. Anderson (2003) further detailed this progress, indicating that by the 1990s the surge of public philanthropy included complex gifts, bequests, and endowments, and required a dedicated team of educated staff to administer fundraising programs, cultivate donors, and manage investments. Worth (1989) stated that, at its most basic level, the purpose of an institutionally-related foundation was to generate financial support, administer the assets, and transfer the funds to the institution to benefit its programs.

In Florida, community college foundations have been incorporated, organized, and operated as separate direct support organizations to benefit the colleges (Florida Statutes, 2008). Their purpose has been to "receive, hold, invest, and administer property and to make expenditures to, or for the benefit of, a community college in this state" (Florida Statutes, 2008, 1004.70 (1)(a)2). As such, a closely aligned organization, the colleges are authorized to allow the direct support organizations (foundations) to utilize or share their resources such as personnel, property, and facilities (Florida Statutes, 2008).

Types of Foundations

Robison (1984) identified and described five types of foundations: holding corporations, personality foundations, structural agents/operating foundations, special purpose foundations, and comprehensive foundations. Holding corporations exist solely to hold and manage assets and have very low levels of activity. Personality foundations function much like a private foundation and rely on personal solicitation from a few primary donors. Structural agents or operating foundations rarely solicit funds and facilitate transactions that would be difficult or impossible for the institution. Special purpose foundations exist to benefit one entity or purpose and actively engage in various fundraising tactics. According to Robison, the majority of community college foundations are considered comprehensive foundations which exhibit characteristics of the other four specialized types including solicitation and management of assets. The comprehensive foundation, in Robison's view, has been likely to have an active board of directors as well as permanent staff.

History of Higher Education Fundraising

The beginnings of higher education fundraising have spanned 25 centuries to the Greco-Romans and the operation of the Academy of Socrates and Plato (Brittingham & Pezzullo, 1990; Cook & Lasher, 1996). Colleges and universities in the United States began as private institutions which were primarily funded by churches and other private sources (Worth & Asp, 1994). Fundraising in America was primitive and consisted

primarily of personal "asks" by the president, trustee, or paid agent who often indicated that the funds were needed to carry forward the message of the church (Worth & Asp).

1636-1900

Hull (2004) referenced the work of Richards and Sherratt in identifying a three-period chronology of the history of advancement functions at institutions of higher education in the United States. The first stage spanned 264 years, from 1636 to 1900, during which time development activities occurred but were not structured.

It was during this period that the first planned fundraising appeal in the United States was documented (Brittingham & Pezzullo, 1990). In 1641, a group of clergymen from Massachusetts went to England specifically to raise funds for Harvard University (Brittingham & Pezzullo). Even though efforts at fundraising were directed toward Europe, local fundraising was also being practiced. Brittingham and Pezzullo indicated that in 1644, area residents were asked to contribute a shilling or a peck of wheat for scholarships so local students could attend Harvard. "While the earliest gifts to American colleges during the seventeenth century were primarily sustaining rather than transforming in nature, the colonists placed a high value on supporting higher education as a means for progress" (Hull, 2004, p. 21).

Alumni associations were created as an alternative vehicle to raise funds and the first alumni association documented was the Society of Alumni at Williams College in Massachusetts, established in 1861 (Kelley, 1999). Although originally created as dues-

paying organizations, most restructured themselves to promote systematic, voluntary contributions (Worth & Asp, 1994).

A foundation created specifically to benefit an American institution of higher education can be traced to 1891 with the establishment of the Kansas University Endowment Association (Worth & Asp, 1994). Since prior contributions had not been deposited and maintained separate and apart from the university's funds, the state of Kansas was able to seize all of the assets to use as general support for the college and to balance an operating shortfall. To protect future assets from confiscation and to assure compliance with donor intent, the first institutionally-related foundation was created to accept private contributions (Kelley, 1999).

1900-1958

The previously simplistic methods of fundraising changed significantly in 1905 when Lyman Pierce and Charles Ward developed the first structured fundraising campaign (Brittingham & Pezzullo, 1990; Worth & Asp, 1994). Although not used in higher education initially, it was adopted by the University of Pittsburgh in 1914 when Ward was hired by the university to conduct a fundraising campaign using their methods, and it has been customary in higher education ever since (Worth & Asp).

Individuals and corporations began reaping the benefits of tax incentives when contributions became deductible to individuals in 1917 and to corporations in 1935 (Brittingham & Pezzullo, 1990). Corporate and private foundation giving became prevalent late in 1910 during World War I as the Carnegie and Rockefeller Foundations

and other entities such as the American Red Cross supported higher education initiatives (Brittingham & Pezzullo). It was during this period that America's longest-running community college was established in 1916 when Joliet Junior College in Illinois was separated from the Joliet Township High School (Community Colleges, n.d.). Clements (1990), however, claimed that Joliet was created as a component of the University of Chicago in 1901. The first community college foundation followed in 1922 at Long Beach City College in California (Robison, 1984). In 1944, at the end of World War II, the United States Congress passed the Servicemen's Readjustment Act, also known as the GI Bill (Community Colleges, n.d.). This act allowed servicemen and servicewomen to attend college to gain workforce skills, and it eased the transition of the servicemen and servicewomen back into the workforce, thereby preventing an oversupply of Americans seeking employment (Community Colleges, n.d.). In 1947, the President's Commission on Higher Education issued a report popularly known as the Truman Commission Report, which encouraged the development of a public community college system in America as a way to ease students' transitions to upper-level colleges and universities (Community Colleges, n.d.).

Advancement functions increased after World War II; alumni associations became more popular and fundraising by institutions became more widespread (Brittingham & Pezzullo, 1990; Hull, 2004). "As fund-raising pressures became more intense in the post-World War II era, institutional development programs became continuous efforts" (Worth & Asp, 1994, p. 9). Therefore, colleges and universities began transitioning away from the fundraising consultant and began hiring their own

fundraising personnel (Cook & Lasher, 1996; Worth & Asp). A few community colleges had formal development efforts in the 1940s and 1950s, but the majority of foundations were not established until the 1960s and beyond (Robison, 1984).

Fundraising reached new heights in the 1950s as the general public became more sophisticated about philanthropy and corporate gifts became a significant source of support for higher education (Brittingham & Pezzullo, 1990). Corporations became partners in education for several reasons including general support, good will or marketing, employee fringe benefits, and tax advantages (Brittingham & Pezzullo).

1958-1980

The period from 1958 to 1980 was focused on efforts to improve the image of higher education and thus to establish or regain public confidence in the American system (Hull, 2004). The Higher Education Facilities Act of 1963 gave communities the opportunity to expand their campuses and construct new facilities (Community Colleges, n.d.). The Higher Education Act of 1965 and its subsequent reauthorizations created access for financially needy students by providing grants and loans for educational expenses (Community Colleges, n.d.). Civil rights movements and women's rights movements were undertaken, and community colleges were established at a rapid pace to meet the demands of all Americans who desired and could now afford a higher education (Community Colleges, n.d.; LaBeouf, 2003).

These events, in addition to the establishment of favorable tax laws regarding charitable contributions, increased the need for community college foundations

(Anderson, 2003). “Thus, the establishment of foundations corresponds with the significant number of community colleges that were created during the 1960s” (Stevenson, 2001, p. 23). Robison (1984) found that more than 80% of community college foundations were established after 1965.

The push toward organized, deliberate fundraising efforts continued into the 1970s with vigor as both corporate and individual prospects were cultivated (Schuyler, 1997). Institutional advancement activities gained significance, and in 1974 the Council for the Advancement and Support of Education (CASE) was formed by the merging of the American College Public Relations Association (ACPRA) and the American Alumni Council (AAC). CASE is “an association dedicated to the support of educational advancement professionals working in alumni relations, communications, and fund raising” (Hull, 2004, p. 36).

In the 1970s, community colleges were encouraged by the American Association of Community and Junior Colleges to actively embrace development (Glass & Jackson, 1998). Community college advancement activities were also gaining acceptance and importance as evidenced by the creation of the National Council for Resource Development (NCRD) in 1973 (Hull, 2004). The NCRD, an affiliate of the American Association of Community Colleges (AACC), later dropped “National” from its name as it became global in membership. “CRD today remains a primary networking and training organization for community college fund-raising personnel” (Hull, 2004, p. 48). Both organizations have continued to provide services to their members.

1980-2000

The period from 1980 to 2000 can be characterized as one in which advancement became legitimate. It became the subject of research, and it was considered professional (Hull, 2004). The 1980s were a time of philanthropic optimism when the capital campaign was transformed into a highly orchestrated and planned event involving technology, recognition, and creativity (Brittingham & Pezzullo, 1990; Loessin, 1997). The strategies of campaigning expanded to include lavish fundraising events and celebrations (Loessin). According to a study by Brittingham and Pezzullo (1990), public two-year institutions made significant gains in fundraising during the 1980s. The establishment of institutionally-related foundations continued to expand with 53% of American community colleges having foundations by 1987 (Glass & Jackson, 1998).

During the 1980s, however, a subtle transition was occurring whereby the products of fundraising became more than supplements to a college's budget. Fundraising became an integral and essential part of the budget (Loessin, 1997). Instead of providing additional programs, equipment, support, or improvements, money was being used to support the ongoing mission of the institution (Loessin). As a result, higher education fundraising became more serious and those involved experienced increased pressure to perform. Institutional advancement work was evolving into a skilled profession (Loessin).

The vigor of higher education fundraising slowed in the 1990s due to the proliferation of nonprofit organizations outside the field of education. This was unfortunate because higher education was facing a decline in federal and state funding,

and students were facing significant tuition increases (Loessin, 1997). Loessin's conclusion was that there was substantially increased competition for scarce resources.

Community college enrollments have exploded since the 1960s (Hendrick, Hightower, & Gregory, 2006). Increased demand combined with decreased funding have put "increasingly severe stress on the traditional open door policy of community colleges" (Hendrick, Hightower, & Gregory, p. 628). "Influences outside of academics have created financial hardships on many college presidents over the past 20 years" (Anderson, 2003, p. 52), and most colleges and universities recognized the increased need to generate financial support in lieu of federal, state, or local support or tuition (Anderson). Brittingham and Pezzullo (1990) predicted that the future of higher education fundraising in the United States would include formal, structured, and centralized programs, greater use of marketing methods targeted to specific desired donor behaviors, and greater competition among all entities, including community colleges.

Evaluation of Fundraising Effectiveness

"The process of evaluation is meant to act primarily as a trigger for considering the need for change" (Cutt & Murray, 2000, p. 138). Performance in the for-profit arena is generally described in terms of net income and shareholder return; however, there is no such significant measure for a public or private nonprofit organization (Cutt & Murray). Cutt and Murray defined value for money or the use of resources as efficiency while defining effectiveness as the achievement of the organization's mission. The term "effective" can be defined as having or producing an intended effect and the term

"effectiveness" can be defined as the ability to produce the desired effect. It seems straightforward; however, defining or describing effectiveness as it pertains to higher education fundraising is a different matter.

Many researchers have equated effectiveness with success (Anderson, 2003; Brooks, 2004; Carrier, 2002; Comegno, 2004; Hall, 2002; Hull, 2004; National Consumer, 2005; Tisdale, 2003) or attainment of a goal (National Consumer). Some researchers have also referred to it as efficiency (Brooks) or performance (Tisdale). Research in the field of fundraising effectiveness, including the variables being measured and the measurement tools, is scarce. The definitions used by researchers have varied widely (Carrier; Comegno). Most studies have focused on variables that could influence the desired outcomes, but did not research the outcomes and their measures themselves (Comegno).

Cook and Lasher (1996) defined fundraising success by analyzing an institution's performance toward attainment of a goal within a set time frame. However, they defined fundraising effectiveness as "performance relative to fund-raising potential given present capabilities and realities" (Cook & Lasher, p. 47). Loessin and Duronio (1993) concurred and included a provision for meeting the institution's fundraising potential and surpassing predicted funds raised in their definition. Hull (2004) concluded that success was a short-term measure and effectiveness was a long-term measure. Carrier (2002) stated that fundraising success or effectiveness could be defined several different ways including "amount of funds raised, the sustainability of foundation efforts, and the degree of support the foundation is able to give to the institution" (p. 28). Robison (1984) suggested

that one should also consider the foundation's ability to contribute to the college's goals through visibility, public relations, and community well-being as part of its effectiveness.

Cutt and Murray (2000) identified two types of performance standards, absolute standards and relative standards, that assist the evaluator with interpretation of the results and recognition of potential problems. "Absolute standards are previously identified targets against which the programme, organization or system is measured that allow clear indications of how close the evaluatee has become to the specified standards" (Cutt & Murray, p. 33). Relative standards, however, have allowed the organization's performance to be compared with other similar organizations (benchmarks) or compared to itself over differing time periods (time-based) (Cutt & Murray; Greenlee & Bukovinsky, 1998).

Even with measurements at hand, the data must be appropriate for its measurement and it must be interpreted. Greenlee and Bukovinsky (1998) and Holman, Ihrke, and Grasse (n.d.) agreed that many of the financial performance ratios that were used for the private sector did not apply to nonprofit organizations. Charities differ from for-profit organizations because they often are not concerned with selling goods or services, and they often lack a profit motive (Greenlee & Bukovinsky; Holman, Ihrke, & Grasse, n.d.).

Cutt and Murray (2000) indicated that one reason interpretation has been difficult was a general lack of standards within the nonprofit sector. "With few exceptions there are no 'industry norms' or even benchmarks for comparison with other organizations or programmes" (Cutt & Murray, p. 96). Cutt and Murray stated that utilizing relative

standards through benchmarking can be constructive if they are viewed as indicators of potential problems to be solved.

Methods to Measure Effectiveness

Brittingham and Pezzullo (1990) identified three approaches to measure fundraising effectiveness. These are (a) perceived effectiveness, (b) objectively-defined effectiveness, and (c) effectiveness adjusted for potential.

Perceived effectiveness is generally measured through survey instrumentation including operational definitions of success administered to fundraisers and stakeholders in the fundraising process. Measures of perceived effectiveness rely on a respondent's professional judgment. This method was utilized in part by Clements (1990) in her study of the effectiveness of development programs in public community colleges in Illinois and Iowa. Clements asked respondents to identify various factors that they deemed important to the success of a fundraising program, such as training of staff and volunteers or commitment of the college board and president. No relationships between perceived effectiveness measures and amount of money raised were found.

Measures of perceived effectiveness were also studied by Carrier (2002) in her research on community college foundation annual revenue. Examples of variables that rely upon perception that were included in Carrier's study are: critical role of the president, critical role of the chief development officer; and importance of meeting institutional strategic goals. These variables were not found to be significant in Carrier's study.

Carter (2005) identified 11 possible items by which a chief development officer could evaluate fundraising programs. Although many items were quantitatively measurable, this analysis relied upon the perception of the respondent as to the importance of the evaluation technique. Several of the variables such as total funds raised or number of solicitation calls could be objectively measured, but quality of effort could not. In her 2004 survey to a sample of community colleges in the United States, Carter asked each respondent to rate the importance of the criteria according to his or her perception about effective fundraising programs. The criteria shown in Table 1, based upon a 7-point Likert scale, are ranked from highest to lowest by average score of the 315 responses received.

Table 1
Comparison of Criteria Important for Evaluating the Fundraising Program

Criterion	Average Score
Total Funds Raised	6.43
Percent of Increase in Funds	5.69
Number of Contributors	5.54
Growth in Donor Universe	5.46
Quality of Effort	5.26
Penetration of New Markets	5.20
Income Raised Compared to Costs of Fundraising Operation	5.03
Generating New Sources of Revenues	4.86
Number of Solicitation Calls	4.11
Number of Volunteer Workers	3.94
Amount of Private Money Raised Per Student	3.11

Note. From *Fundraising Programs at Selected Community Colleges*, by M. L. Carter, 2005, Indianapolis, IN: Ivy Tech State College. Copyright 2005 by M. L. Carter. Adapted with permission.

According to Brittingham & Pezzullo (1990), this approach may not accurately measure effectiveness because the types of measures are subjective. These authors

identified three potential problems with this approach: The norms in fundraising may not optimize historical theories; techniques that worked in the past may not be appropriate to modern situations; and methods or variables employed may not be appropriate for differing types of institutions.

The second approach employed by Brittingham and Pezzullo (1990) defined effectiveness in terms of measurable objectives such as total dollars raised. This was the most prevalent method of evaluating effectiveness as presented in the literature (Carrier, 2002; Comegno, 2004). Although this approach had its advocates, it was not without drawbacks. Loessin (1997) cautioned that results may be unusually high or low in a given year and that an organization should not be evaluated on a single year alone. Loessin also faulted this method because it did not consider the organization's potential for fundraising, nor did it factor in effectiveness for specific categories of fundraising such as private giving, corporate giving, or public support. Both Carrier (2002) and Clements (1990) used information about measurable objectives as part of their studies by capturing the dollar amounts of reported annual revenues.

Though Brittingham and Pezzullo's (1990) third approach measured effectiveness in relation to an organization's perceived potential for fundraising, they recognized its faults. "The challenge in this approach is developing and validating useful measures of an institution's potential for raising private support" (Brittingham & Pezzullo, p. 21). Factors that influence an organization's fundraising potential included history and size of the institution, number of alumni, methods of solicitation, and volunteer efforts (Pocock, 1989). According to Loessin (1997), economic growth of the service area and diversity of

the industrial base could be factored into a foundation's fundraising potential, and this potential could be identified through the use of peer-group benchmarking. Prager, Sealy & Co. (2005) emphasized that non-financial drivers such as reputation should also be considered for their impact on financial transactions and performance.

Elements of all three approaches identified by Brittingham and Pezzullo (1990) were used by Tisdale in his 2003 research to evaluate fundraising success. Tisdale incorporated perception (satisfaction), measurable objectives (amount of money raised), and potential (factoring in service area characteristics and conditions) into his evaluation techniques. Tisdale surveyed the directors of 14 community college foundations in Mississippi. Having identified six potential methods of evaluating fundraising success, Tisdale analyzed them based upon the respondents' indicated frequency of usage to evaluate the institution. The items were rated on a 5-point Likert scale with 5 representing a frequently used method and 1 representing a method that was not used. The criteria shown in Table 2 are ranked from highest to lowest by average score of responses received.

Table 2
Evaluation Methods as Judged by Mississippi Community Colleges

Criterion	Average Score
Satisfaction with Fundraising Performance	4.08
Amount of Money Raised Without Norms for Comparison	4.00
Income Raised Compared to Costs of Fundraising Operations	3.85
Percentage of Total Institutional Revenue Generated Through Private Gifts and Donations	2.54
Measure of How Well an Institution Realizes Its Full Potential Based upon Models of Effectiveness that Account for Institutional and Service Area Characteristics and Conditions	2.31
Amount of Money Raised Per Student	1.54

Note. From *Critical Components of Mississippi Community College Foundations*, by J. T. Tisdale, 2003, *Dissertation Abstracts International, 64*, (03), 755. (UMI No. 3084221). Copyright 2003 by J. T. Tisdale. Adapted with permission.

Comprehensive evaluation of a nonprofit may include review of board governance, purpose, programs, media, financial reports, use of funds, budget, and accountability (Cutt & Murray, 2000). Within a review of several evaluation tools, Cutt and Murray identified two nonprofit evaluators that emphasize the utilization of financial performance ratios: the American Institute for Philanthropy and GuideStar. Financial performance ratios are addressed in depth in the following discussion of evaluation formulas.

Evaluation Formulas

"Donors to non-profit organizations would like assurances that the money they donate will 'make a difference' for the cause they support" (Cutt & Murray, 2000, p. 123). As such, several evaluation tools include the calculation of financial ratios (Cutt & Murray). These two authors stated that ratios may identify trends over time that could

develop into problems or indicate improvements in operations. They also noted a significant weakness in that there have been no standardized methods for calculation, and in some situations, the raw data may not even have been available.

Brooks (2004) discussed ratios as generally simple to calculate, analyze and understand making them an advantageous way to assess financial success to nonprofit practitioners and policymakers. "Some donors and charity watchdogs advocate using financial ratios to evaluate charities and ferret out the ones that are using their funds inappropriately" (McLean & Coffman, 2004, p. 1). Simple ratios can determine expense efficiency, such as the ratio of fundraising expenses to total expenses, or they can measure an organization's efficiency at spending fundraising dollars where they are likely to generate additional revenues (the ratio of dollars raised to fundraising expenses) (Brooks).

"Although NPO [nonprofit organization] stakeholders are vitally interested in seeing their organizations perform optimally, agreement about NPO financial performance measurement and overall performance evaluation has remained elusive to both researchers and practitioners" (Ritchie & Kolodinsky, 2003, p. 367). The significance of these measurement tools, however, has been projected to increase as the demand for audits of nonprofit organizations increases (Greenlee & Bukovinsky, 1998).

Empirical Studies Utilizing Ratios

After a comprehensive literature search, there were no empirical studies found that used ratios as a measurement tool for community college foundation performance.

Very limited empirical research was available that applied similar methodologies to other types of charitable organizations or that utilized financial ratios as variables for different types of analyses. Those found are described in this section.

Many researchers recognized the importance of categorizing nonprofits by mission or sector when conducting research because the operations and cash flows could distinctly vary. Sectors observed within the related literature included: (a) arts, culture, and humanities (Frumkin & Kim, 2001; Greenlee & Bukovinsky, 1998; Holman, Ihrke, & Grasse, n.d.; Trussel, 2006b; Waddell, 1995); (b) community needs and involvement, capacity building (Greenlee & Bukovinsky; Holman, Ihrke, & Grasse); (c) education (Frumkin & Kim, 2001; Greenlee & Bukovinsky; Trussel, 2006b; Waddell); (d) health and mental health, crisis intervention (Frumkin & Kim; Greenlee & Bukovinsky; Holman, Ihrke, & Grasse; Trussel, 2006b; Waddell); (e) human needs or services (Frumkin & Kim; Greenlee & Bukovinsky; Holman, Ihrke, & Grasse; Trussel, 2006b; Waddell); (f) science and social science research (Greenlee & Bukovinsky); (g) economic development (Greenlee & Bukovinsky); (h) environment/nature/animals (Greenlee & Bukovinsky; Waddell); (i) international issues (Greenlee & Bukovinsky; Waddell); (j) recreation, sports, leisure, athletics (Holman, Ihrke, & Grasse); (k) crime, legal related (Holman, Ihrke, & Grasse); (l) public or society benefit (Frumkin & Kim; Trussel, 2006b; Waddell); (n) religion related (Waddell); (o) mutual/membership benefit (Waddell); and (m) other, unknown, unclassified (Frumkin & Kim; Waddell).

In addition to categorizing charities by purpose, some researchers further distinguished the nonprofits being studied by size as measured by revenues. Greenlee and

Bukovinsky (1998) grouped organizations by revenues according to quartiles within each sector and reported results by quartile and overall by sector. Holman, Ihrke, and Grasse (n.d.) classified the charities by revenues into seven levels, the lowest of which was less than $250,000 and the highest of which was $10 million or greater for each sector. Overall sector results were not reported in the Holman, Ihrke, and Grasse study.

Ritchie and Kolodinsky (2003) studied financial performance measures of 122 university foundations to "explore potential similarities" (p. 367) among the ratios. Data were generated from IRS Form 990 data for the years 1990 to 1995 gathered from the National Center for Charitable Statistics. The researchers initially identified 16 ratios spanning four categories: (a) fiscal performance, (b) fundraising efficiency, (c) public support, and (d) investment performance and concentration (Appendix A). Factor analytic techniques yielded three distinct constructs: fundraising efficiency, public support, and fiscal performance, "each with two associated financial measurement ratios" (Ritchie & Kolodinsky, p. 367).

Greenlee and Bukovinsky (1998) studied 12 performance ratios segregated based upon two categories: adequacy of resources to support the mission and use of resources to support the mission (Appendix B). The purpose of their research was to provide auditors with a sample of financial indicators that could be used during an analytical review or audit of the nonprofit. The authors analyzed "information submitted to the Internal Revenue Service by 20,000 charitable organizations to develop key industry ratios for different types of charitable organizations, and to provide benchmarks for the ratio values" (p. 32). The data represented information that was available from the

Philanthropic Research Institute for the 1993 tax reporting year (Greenlee & Bukovinsky, 1998). Median results for the 12 ratios studied were presented by quartile and overall for each sector.

The ratios utilized by Ritchie and Kolodinsky (2003) and Greenlee and Bukovinsky (1998) were also used in the studies of other researchers. For example, Trussel (2006a; 2006b) referenced three measures of fiscal performance that were also studied by Ritchie and Kolodinsky: (a) *ratio of net assets to total assets*, (b) *ratio of surplus (total revenue minus total expense) to total assets*, and (c) *ratio of surplus (total revenue minus total expense) to total revenues*. Several researchers in addition to Ritchie and Kolodinsky included the *contributions and grants ratio* as a measure of public support (Greenlee & Bukovinsky; Holman, Ihrke, & Grasse, n.d.; McMahon, 2006; Trussel, 2006a; Trussel, 2006b). Trussel (2006a; 2006b) also reviewed the *ratio of cash and savings to total assets* and the *ratio of total securities to total assets* which both measured investment performance and concentration. Ritchie and Kolodinsky used these measures also.

Greenlee and Bukovinsky (1998) distinguished their ratios by type as a measure of the adequacy of resources to support the organization's mission or the use of resources to support the organization's mission. The following ratios that were identified by Greenlee and Bukovinsky were also prevalent in the literature as measures of adequacy of resources to support mission: (a) *defensive interval* (Holman, Ihrke, & Grasse, n.d.; McMahon, 2006); (b) *liquid funds indicator* (Holman, Ihrke, & Grasse); (c) *liquid funds amount* (Holman, Ihrke, & Grasse); (d) *savings indicator* (Holman, Ihrke, & Grasse); (e)

debt ratio (Holman, Ihrke, & Grasse; McMahon; Trussel, 2006a; Trussel, 2006b); and (f) *accounts payable aging indicator* (McMahon).

Proper use of funds was a recurrent theme. The following ratios that were identified by Greenlee and Bukovinsky were also prevalent in the literature as measures of use of resources to support mission: (a) *program service expense ratio* (Holman, Ihrke, & Grasse, n.d.; Trussel, 2006a; Trussel, 2006b), (b) *ratio of program expenses to total assets* (McMahon, 2006; Trussel, 2006a; Trussel, 2006b), (c) *management expense ratio* (McMahon; Trussel, 2006a; Trussel, 2006b), and (d) *fundraising expense ratio* (McMahon; Twu, 2007).

Of particular interest in this study were prior analyses that focused on education. Of the nine sectors studied by Greenlee and Bukovinsky (1998), the education sector related most closely to the mission of a public community college foundation. Greenlee and Bukovinsky described the education sector to include: (a) early childhood, (b) special education, (c) vocational education, (d) adult continuing education facilities, (e) libraries, (f) archives, (g) remediation testing and services to dropouts, (h) financial aid scholarships, and (i) student support services. Results of a ratio analysis for the education sector using 1993 data are shown in Table 3.

Table 3
Ratio Analysis for Education Institutions for 1993

Ratio	Median	*N*
Defensive Interval	3.014	1,143
Liquid Funds Indicator	1.703	978
Accounts Payable Aging Indicator	0.375	1,083
Savings Indicator	0.032	924
Contributions and Grants Ratio	0.464	1,146
Endowment Ratio	5.062	162
Debt Ratio	0.215	1,074
Fundraising Efficiency Ratio	9.097	343
Fundraising Expense Ratio	0.024	343
Management Expense Ratio	0.120	1,143
Program Service Expense Ratio	0.866	1,143
Ratio of Program Service Expense to Total Assets	1.314	979

Note. From "Financial Ratios for Use in the Analytical Review of Charitable Organizations," by J. S. Greenlee and D. Bukovinsky, 1998, *The Ohio CPA Journal, 57*, p. 32.

Trussel (2006b) analyzed the financial statements of nonprofit organizations across five major sectors, including education, for the 1999 tax year. For his analysis, he reported the medians of 30 ratios that represented 7 categories: (a) liquidity, (b) activity, (c) return on capital, (d) adequacy of resources, (e) use of resources, (f) leverage/solvency, and (g) composite measures as shown in Appendix E.

In addition, Trussel (2006b) provided the means for common-size financial statements (statement of revenues and expenses and balance sheet) by sector. The common-size financial statements were created by dividing each line item by the unit of measure. Total revenues were the unit of measure (100%) for the statement of revenue and expense and total assets were the unit of measure (100%) for the balance sheet. These common-size statements provided the calculations for several ratios also seen in other research studies: (a) *contributions and grants ratio*, (b) *ratio of cash and savings to total*

assets, (c) *ratio of total securities to total assets*, (d) *debt ratio*, and (e) *ratio of net assets to total assets*. Selected ratios calculated for the education sector for 1999 are shown in Table 4.

Table 4
Selected Ratios Analyzed for Education Institutions for 1999

Ratio	Median	*M*	*N*
Contributions and Grants Ratio	not reported	0.26	2,743
Ratio of Cash and Savings to Total Assets	0.06	0.05	2,743
Ratio of Total Securities to Assets	not reported	0.53	2,743
Debt Ratio	0.18	0.23	2,743
Ratio of Net Assets to Total Assets	not reported	0.77	2,743
Ratio of Program Expenses to Total Assets	0.24	not reported	2,743
Ratio of Surplus to Total Assets	0.06	not reported	2,743
Ratio of Surplus to Revenues	0.15	not reported	2,743
Program Service Expense Ratio	0.83	not reported	2,743
Management Expense Ratio	0.13	not reported	2,743

Note. From *Analyzing the Financial Statements of Nonprofit Organizations: A Study of the Major Sectors,* by J. Trussel (2006b), Retrieved August 1, 2008 from the Association of Fundraising Professionals Web site: http://www.afpnet.org/content_documents_ap_sectors_092007.pdf

Ritchie and Kolodinsky's 2003 study extended into a second phase which involved analyzing the resultant measures from phase 1 of their study by utilizing financial data collected for a sample of 102 university foundations for 1999. The means and standard deviations for the six resultant financial ratios reported as part of phase 2 of the study are displayed in Table 5. Of the literature found, the Ritchie and Kolodinsky study had the strongest comparative value to the community college foundation focus of this study.

Table 5
Ratio Analysis for University Foundations for 1999

Ratio	*M*	*SD*	*N*
Ratio of Direct Public Support to Fundraising Expense	84	312	102
Ratio of Total Revenue to Fundraising Expense	121	400	102
Contributions and Grants Ratio	0.65	0.18	102
Ratio of Direct Public Support to Total Assets	0.16	0.11	102
Ratio of Total Revenue to Total Expenses	2.54	2.89	102
Ratio of Total Contributions to Total Expenses	1.80	2.90	102

Note. From "Nonprofit Organization Financial Performance Measurement: An Evaluation of New and Existing Financial Performance Measures," by W. J. Ritchie and R. W. Kolodinsky (2003), *Nonprofit Management and Leadership, 13*, 367-381.

The one common ratio among these three analyses within the education sector was the *contributions and grants ratio*. For 1993, Greenlee and Bukovinsky (1998) found the median for the ratio to be 0.464. This meant that the organization in the middle of the sample distribution relied on voluntary support for 46.4% of its revenues. Half of the charities evaluated were more reliant and half were less reliant on voluntary support. Six years later, Trussel (2006b) found the mean for his fiscal year 1999 sample to be 0.26. This meant that, on average, the education charities studied only received 26% of their revenues from voluntary support. In contrast, Ritchie and Kolodinsky (2003) found that on average university foundations relied on voluntary support for 65% of their revenues in 1999. This indicated that further differentiation or classification may be valuable when evaluating similar organizations.

In the Greenlee and Bukovinsky (1998) and Trussel (2006b) studies, the *program service expense ratio* for the sector was found to be high. The median found in 1993 by Greenlee and Bukovinsky indicated that the organization spent 86.6% of its expenses on

programs (its mission), while the median found in 1999 by Trussel (2006b) indicated that the organization spent 83% of its expenses on programs.

As expected with high *program service expense ratios*, the *management expense ratios* calculated by Greenlee and Bukovinsky (1998) and Trussel (2006b) for the education sector were low. In 1993, the institution in the middle of the distribution for the *management expense ratio* only incurred 12% of expenses for management and general purposes, but this increased slightly in 1999 (median = 0.13) according to Trussel.

The *debt ratio* was included in both the 1993 sector analysis by Greenlee and Bukovinsky (1998) and the 1999 sector analysis by Trussel (2006b). Greenlee and Bukovinsky found a median *debt ratio* of 0.215 which meant that 21.5% of the organization's assets were debt financed. Half of the charities had a higher proportion and half had a lower proportion. This finding was similar to that found by Trussel (median = 0.18; mean = 0.23).

The *ratio of program expenses to total assets* had the greatest disparity. Greenlee and Bukovinsky (1998) found the median for this ratio in 1993 to be 1.314 for the education sector. This indicated that the organization at the midpoint of the distribution spent more money on program services during the year than the value of all assets on the balance sheet at year end. That meant that an amount equivalent to 131.4% of its asset holdings at year end were spent on program services during the year. In this case, it would be important to review the value of the institution's assets recorded for the prior year to determine if total assets had increased or declined. It would also be important to evaluate prior year spending patterns to look for similarities or inconsistencies. In

contrast, Trussel (2006b) found the median *ratio of program expenses to total assets* to be 0.24 in 1999.

Ratio analysis was utilized by Waddell (1995) to establish financial norms that could be used by accountants and auditors and to identify an organization's performance relative to the population. Waddell identified four key information needs for nonprofit stakeholders: (a) financial viability, (b) fiscal compliance, (c) management performance, and (d) cost of services provided. Nine financial ratios were utilized in the analysis: (a) *ratio of total contributions to fundraising expense*, (b) *ratio of program service expense to fundraising expense*, (c) *ratio of total revenue to management and general expense*, (d) *ratio of total contributions to management and general expense*, (e) *ratio of program service expense to management and general expense*, (f) *ratio of total revenue to management and general and fundraising expense*, (g) *ratio of total contributions to management and general and fundraising expense*, and (h) *ratio of program service expense to management and general and fundraising expense*, (i) *ratio of program service expense to total revenue* (Waddell).

Waddell (1995) studied over 10,000 nonprofit organizations that were included in the Statistics of Income database for years 1987, 1988, and 1991. For purposes of this study, nonprofit organizations were grouped into ten categories as determined by their mission, one of which was education. Within functional areas, medians and distribution patterns for the ratios were reported by year. These ratios then were utilized as variables in predictive modeling to forecast ratings given to an organization by outside charity monitoring services.

These ratios were then used by Waddell (1995) to analyze trends in the education sector to determine if there were movements of group parameters over time. Although the ratios used were not found to be prevalent in the literature, results of the trend analysis for the education, instruction, and related activities sector are summarized in Table 6.

Table 6
Trend Analysis for Education, Instruction, and Related Activities

Descriptors	1987	1988	1991
Ratio of Total Contributions to Fundraising Expense			
Median	8.77	9.25	8.27
N	1,248	1,361	1,312
Ratio of Program Service Expense to Fundraising Expense			
Median	27.81	27.00	29.53
N	1,248	1,361	1,312
Ratio of Total Revenue to Management and General Expense			
Median	8.13	8.30	8.10
N	1,883	2,114	1,886
Ratio of Total Contributions to Management and General Expense			
Median	1.55	1.59	1.38
N	1,883	2,114	1,886
Ratio of Program Service Expense to Management and General Expense			
Median	5.46	5.39	5.50
N	1,883	2,114	1,886
Ratio of Total Revenue to Management and General and Fundraising Expense			
Median	6.78	6.87	6.79
N	1,916	2,146	1,913
Ratio of Total Contributions to Management and General and Fundraising Expense			
Median	1.31	1.37	1.20
N	1,916	2,146	1,913

Descriptors	1987	1988	1991
	Ratio of Program Service Expense to Management and General and Fundraising Expense		
Median	4.56	4.55	4.68
N	1,916	2,146	1,913
	Ratio of Program Service Expense to Total Revenue		
Median	0.71	0.69	0.72
N	2,086	2,332	2,035

Note. From *A Descriptive Analysis of Tax-exempt Not-for-profits' Financial Data for Use in Accounting Research,* by J. C. Waddell (1995), *Dissertation Abstracts International, 57* (01), 316. (UMI No. 9615387)

Examples of ratio analyses were also found for sectors other than education. Holman, Ihrke, and Grasse (n.d.) presented benchmark data for tax year 2003 for nonprofit organizations across six sectors, but not including education. A total of 99,682 organizations were studied, but there was no reference as to how they were identified or how the data were generated.

The study by Holman, Ihrke, and Grasse (n.d.) included five calculations that reflected the organization's adequacy of resources. These calculations included: (a) *defensive interval* (ratio of cash, marketable securities and revenues to average monthly expenses), (b) *liquid funds indicator* (ratio of total net assets minus restricted net assets minus fixed assets to average monthly expenses), (c) *liquid funds amount* (calculation of unrestricted net assets minus net fixed assets plus mortgages and other notes payable), (d) *savings indicator* (ratio of revenue minus expense to total expense), and (e) *debt ratio* (ratio of average total debt to average total assets).

Two ratios were included to reflect the revenue composition of the organizations: (a) *contributions and grants ratio* (ratio of revenue from contributions and grants to total

revenue), and (b) *government grants ratio* (ratio of revenue from government grants to total revenue). The *program service expense ratio* (ratio of program service expense to total expense) was the only measure included to reflect the organization's use of resources. Mean and median were reported for each ratio by revenue category within each sector, but overall sector calculations were not included. In addition to the overall results, Holman, Ihrke, and Grasse provided mean and median ratio results for 1,148 nonprofit organizations in Milwaukee, WI for 2003. A sector analysis for education was not included, so results for the arts, culture, and humanities sector utilizing the midpoint revenue category of $1,000,000 to $1,999,999 are shown in Table 7.

Table 7
Ratio Analysis for Organizations with Revenues between $1,000,000 and $1,999,999 for the Arts, Culture, and Humanities Sector for 2003

Ratio	Median	*M*	*N*
Defensive Interval	2.078	13.692	1,363
Liquid Funds Indicator	4.298	21.029	1,363
Liquid Funds Amount	205,328	985,776.817	1,363
Savings Indicator	0.013	0.894	1,363
Debt Ratio	0.000	0.280	1,360
Contributions and Grants Ratio	0.558	0.554	1,363
Government Grants Ratio	0.025	0.129	1,363
Program Service Expense Ratio	0.766	0.733	1,363

Note. From "*The Analysis of Key Financial Ratios in Nonprofit Management,"* by A. C. Holman, D. M. Ihrke, and N. J. Grasse, (n.d.), Retrieved July 27, 2008, from The Center on Philanthropy at Indiana University Web site: http://www.philanthropy.iupui.edu/Education/Dec_4_Nonprofit_Presentation.ppt

As part of a case study, Trussel (2006a) evaluated five human-services organizations utilizing performance measurement ratios as part of his research, comparing those results with data provided from the National Center for Charitable Statistics for the entire sector based on 1999 data. Selected averages for the sector are

shown in Table 8. The case analysis included data from the most "current" year (2003 or 2004) as well as the prior four years in order to examine trends per ratio over time for one organization, Alpha. For example, the *contributions and grants ratio* for Alpha Center was calculated on the common size statement of revenues and expenses for the five-year period from 2000 to 2004 (2000, 0.047; 2001, 0.050; 2002, 0.052; 2003, 0.040; 2004, 0.037). In addition, the *program service expense ratio* for Alpha Center was calculated for the four-year period from 2001 to 2004 (2001, 0.905; 2002, 0.902; 2003, 0.898; 2004, 0.895). Trussel's study expanded upon the calculated ratios to propose a means of ranking the organizations studied based upon the performance observed.

Table 8
Selected Ratios Analyzed for Human Services Organizations for 1999

Ratio	*M*	*N*
Contributions and Grants Ratio	0.314	147
Ratio of Cash and Savings to Total Assets	0.113	147
Ratio of Total Securities to Assets	0.190	147
Debt Ratio	0.523	147
Ratio of Net Assets to Total Assets	0.447	147
Ratio of Program Expenses to Total Assets	1.108	147
Ratio of Surplus to Total Assets	0.012	147
Ratio of Surplus to Revenues	0.009	147
Program Service Expense Ratio	0.897	147
Management Expense Ratio	0.098	147

Note. From "*Analyzing the Financial Statements of Nonprofit Organizations: A Case Study,"* by J. Trussel (2006a), Retrieved September 28, 2008 from the Association of Fundraising Professionals Web site: http://www.afpnet.org/content-documents/ap_case_study_092007.pdf

While discussing the advantages and disadvantages of simple ratios, Brooks (2004) described a case analysis of 47 New York state social welfare nonprofits. Utilizing data for 2001 that were obtained from the National Center for Charitable Statistics, Brooks constructed two measures: (a) the difference of the *fundraising expense ratio*

(ratio of fundraising expense to total expense) subtracted from 1.0, and (b) *ratio of total contributions to fundraising expense*. The first measure was intended to present the proportion of total expenses that were dedicated to core services rather than fundraising; however, there was no provision for management and general expense. Brooks included the second measure as a means of measuring donor attraction, or as a measure of fundraising efficiency. The mean, standard deviation, minimum and maximum were reported for each measure as shown in Table 9.

Table 9
Ratio Analysis for Social Welfare Organizations for 2001

Ratio	*M*	*SD*	Minimum	Maximum	*N*
1 – (fundraising expense ratio)	0.94	0.16	0	1	47
Ratio of unearned revenue (total contributions) to fundraising expense	131	300	0.33	1,484	47

Note. From "Evaluating the Effectiveness of Nonprofit Fundraising," by A. C. Brooks (2004), *Policy Studies Journal, 32*, 363-374. Retrieved July 1, 2005, from Academic Search Premier database.

In addition to utilizing ratios strictly as a measurement tool which could be used for comparative analyses, they could be used to develop other types of models. For example, Frumkin and Kim (2001) studied the relationship between efficiency (as measured by the *management expense ratio*) and total contributions. These researchers evaluated 2,359 nonprofit organizations which constituted a stratified random sample of all organizations required to file an IRS Form 990 over an 11-year period from 1985 to 1995. Descriptive statistics for the *management expense ratio* by year were not reported. The results of their study indicated that having high efficiency (a low *management*

expense ratio) did not lead to greater success with fundraising as measured by total contributions.

An alternative approach was also studied by Twu (2007). In this research, the author utilized the *fundraising expense ratio* as one of four measures to operationalize fundraising efficiency. Twu studied a restricted sample of 439 nonprofit symphony orchestras across 223 metropolitan areas who filed IRS Form 990 during the years 2000, 2001, and 2002. For the symphony orchestras studied for 2002, Twu found the mean of the *fundraising expense ratio* to be 0.09 with a standard deviation of 0.19. The minimum was 0.00, and the maximum was 3.56. These results were positively skewed as 86% of the results were between 0.00 and 0.28, yet the maximum was substantially higher. The purpose of Twu's research was to empirically test a model to examine how factors such as metropolitan characteristics, institutional forces, organizing processes, and structure affected reported fundraising efficiency. The findings revealed limited relationships between the factors and reported fundraising efficiency.

Another study sought to explore the relationship between fundraising ratios and effectiveness in fulfilling the organization's mission. McMahon (2006) utilized survey data from 77 nonprofit animal rescue organizations in California to explore the relationships, if any, between financial performance ratios and effectiveness in fulfilling the organization's mission. Eight ratios were included in McMahon's study: (a) *contributions and grants ratio* (ratio of contributions and grants to total revenue); (b) *defensive interval* (ratio of cash, marketable securities and receivables to average monthly expenses); (c) *debt-to-asset ratio* (ratio of total liabilities to total assets, also known as the

debt ratio); (d) *accounts payable aging indicator* (ratio of accounts payable to average monthly expenses); (e) *management expense ratio* (ratio of management and general expense to total expense); (f) *fundraising efficiency ratio* (ratio of fundraising expense to total expense); (g) *ratio of program expenses to total assets*; and (h) *program expense ratio* (ratio of program expenses to total expenses). It is important to note that what McMahon called the *fundraising efficiency ratio* is more frequently called the *fundraising expense ratio*.

McMahon (2006) reported median, standard deviation, minimum and maximum results for the 2003 year as shown in Table 10. The results of this study found that two measures, *debt ratio* and the *accounts payable aging indicator* were related to effectiveness in fulfilling the organization's mission.

Table 10
Ratio Analysis for Animal Rescue Organizations for 2003

Ratio	Median	*SD*	Minimum	Maximum	*N*
Contributions and Grants Ratio	0.80	0.31	0.00	1.00	77
Defensive Interval	5.10	20.00	0.00	155.00	77
Debt Ratio	0.00	0.62	0.00	5.00	77
Accounts Payable Aging Indicator	0.00	1.20	0.00	7.70	77
Management Expense Ratio	0.04	0.09	0.00	0.36	77
Fundraising Expense Ratio	0.90	0.18	0.00	1.00	77
Ratio of Program Expense to Assets	1.17	14.20	0.00	64.00	77
Program Expense Ratio	0.91	0.15	0.00	1.00	77

Note. From *Measuring Performance in Nonprofit Animal Rescue Organizations,* by C. L. McMahon (2006), *Dissertation Abstracts International, 67* (09). (UMI No 3235877)

Benefits and Applicable Use of Ratios

The American Institute of Philanthropy has published the ratings of charities in its *Charity Rating Guide* based upon its evaluation of the organization. This evaluation has included financial performance measurements. Ratios calculated for this report include the *percent spent on charitable purpose* (charitable program expenses divided by total expenses) and the *cost to raise $100* (fundraising expenses divided by the amount of contributions received as a direct result of the fundraising expenses) (*Charity*, n.d.). Cutt and Murray (2000) have warned that this approach may focus too strongly on fundraising while not addressing the organization's ability or effectiveness at achieving its mission. Lammers (2003) also cautioned that an over-emphasis on financial ratios could have negative consequences on a charity such as elevating efficiency over effectiveness, misstatement of expenses, or lack of ability to change or grow.

Even with its disclaimers, GuideStar has advised that financial ratios may be beneficial when comparing organizations that are similar in mission, programs, size, age, and location or when tracking one organization's performance over time (Analyst reports methodology, n.d.; McLean & Coffman, 2004). GuideStar has provided a set of financial performance ratios for individual organizations as part of its fee-based Analyst Reports service. For researchers who have not had access to this subscription service, GuideStar has recommended calculation and review of seven ratios: (a) *accounts payable aging indicator*, (b) *contributions and grants ratio*, (c) *debt ratio*, (d) *fundraising ratio*, (e) *liquid funds indicator*, (f) *program ratio*, and (g) *savings ratio* (McLean & Coffman). These ratios are presented in Appendix C. Four of these ratios (*contributions and grants*

ratio, *debt ratio*, *fundraising ratio*, and *program ratio*) correspond with ratios that have been calculated on the GuideStar Analyst Report. Ratios included on the Analyst Report but absent from the self calculations are the *other income ratio* and the *program service revenue ratio* (GuideStar Analyst Report Preview, n.d.).

Although referenced by different names, three ratios were mentioned by separate and independent sources in the literature: the *contributions and grants ratio*, the *fundraising expense ratio*, and the *program service expense ratio*. These three ratios have been considered to be noteworthy and have been calculated frequently. These ratios were studied in depth as part of this research.

The *contributions and grants ratio* measures the proportion of revenues that is derived from private sources of support (Greenlee & Bukovinsky, 1998; McLean & Coffman, 2004). Private sources of support include gifts made directly by the public (cash and noncash), indirect support through federated fundraising agencies, and governmental grants for which no direct benefit is provided to the grantor. It is calculated by dividing the revenue from contributions and grants (gifts, grants, and other contributions) by total revenue. It can be used as a gauge for the organization's dependence upon voluntary support which may be less predictable than other revenue sources such as program service revenue, rental income, or investment income (Greenlee & Bukovinsky; McLean & Coffman).

This ratio is a measure of revenue concentration that demonstrates the extent of the organization's reliance on private support. It is also a component of what Trussel (2006b) called the common-size statement of activities. In a common-size statement,

"each line item is converted from a monetary unit to a percentage of total revenues" (Trussel, 2006b, p. 9). This technique removes the influence of organizational size while allowing analysis over time (trends) and analysis by comparison to similar organizations Trussel, 2006b). Greenlee and Bukovinsky have categorized this ratio as one to measure the adequacy of resources to support the mission of the charity while Ritchie and Kolodinsky (2003) categorized it as a measure of public support. "A high or increasing value may be undesirable due to the unpredictability of these revenue sources" (Greenlee & Bukovinsky, p. 33).

The *fundraising expense ratio* measures the proportion of total expenses that are spent on fundraising to generate private contributions (Greenlee & Bukovinsky, 1998; McLean & Coffman, 2004). It is calculated by dividing fundraising expenses by total expenses. GuideStar has cautioned that this ratio may not be useful for comparative purposes due to differing accounting and fundraising methods employed by the respective entities (McLean & Coffman). Greenlee and Bukovinsky believed that if this ratio was used for comparative purposes between organizations it should be evaluated in conjunction with overall fundraising efficiency.

The GuideStar analyst report (n.d.) stated that the best use of this ratio was to measure trends over time, particularly when studying one particular institution. It continued to explain that high fundraising costs did not necessarily indicate wastefulness, but they could be a reflection of the types of funding. In general, more money would be spent to generate many small contributions rather than a few large contributions. The *fundraising expense ratio* has been categorized as a measure of use of resources to

support the mission and in general, a lower ratio is preferable (Greenlee and Bukovinsky, 1998).

The third ratio frequently mentioned was the *program service expense ratio*. This ratio measures the proportion of total expenses spent on programs and services of the organization--in essence, its mission as opposed to its administrative expenses or fundraising expenses (Criteria, n.d.; Greenlee & Bukovinsky, 1998; McLean & Coffman, 2004). It is calculated by dividing the program service expenses by total expenses. Greenlee and Bukovinsky categorized this ratio as a measure of use of resources to support the organization's mission.

Lammers (2003) stated that a favorable *program service expense ratio* generally fell between 60% and 70% of total expenses, but that a young nonprofit may fall lower because of high startup expenses. An organization may also observe a lower ratio if they operate in an area with a high cost of living (McLean & Coffman). This is an important ratio because some charity monitoring services require a ratio of at least 60% in order to receive a positive rating (Greenlee & Bukovinsky). As a long-term goal, organizations should strive to raise their *program service expense ratios* and dedicate more resources toward fulfillment of their missions (McLean & Coffman).

Even though ratios have become an increasingly popular way for interested stakeholders to evaluate nonprofits, they should be used as a tool to assist in evaluation along with other measures. Brooks (2004) identified three reasons why using ratios as evaluation methods may not be useful. First, the ratios can only account for average returns and not marginal returns. This assumes that for every input by the charity, an

equal output (as measured by the average) is generated. When reporting averages, there is no threshold whereby the return in outputs peaks or declines as a result of adding more inputs to the system.

For example, utilizing the *ratio of total revenue to fundraising expenses*, one cannot determine if the return on the last dollar expended for fundraising returned an amount greater than or less than the return generated from the first dollar spent on fundraising. That is to say in this scenario the charity would continue to generate revenues equal to the average ratio calculated for every dollar invested in fundraising expense indefinitely. Another drawback is that one cannot determine if the return on the last dollar expended for fundraising returned an amount greater than, equal to, or less than the dollar that was expended. If an organization invested a dollar in fundraising expense, but that investment returned less than a dollar, then the organization will lose money.

Second, the ratios cannot be compared across differing organizations because other factors, such as demographics, may make raw comparisons inaccurate. GuideStar concurs by noting that multiple factors, such as the institution's mission, size, wealth, location, and age may affect performance (Pocock, 1989; Robison, 1984).

The third criticism of the use of ratios is the lack of consistency in accounting reporting standards. Similar expenses, such as administrative salary expense, may be reported differently by non-related organizations. GuideStar has concurred by reminding readers that "accounting practices among nonprofits vary widely, so that what appear to be discrepancies in the ratios for different organizations might merely reflect divergent

accounting methods" (McLean & Coffman, 2004, p. 2). Brooks (2004) concluded by reminding the reader that although simple ratios could be used to evaluate effectiveness and compare institutions, they did not provide any foresight into the characteristics or practices that caused the organization to reach the reported outcomes. The American Institute of Philanthropy has also cautioned that "charity financial reporting is inconsistent, unclear and often incorrect" (*Charity*, n.d., p. 2).

Yet another potential problem with formulas has been the type and timing of gifts received by the institution. Major gifts, planned gifts, and bequests usually take time to cultivate and mature; therefore, cost analyses may be difficult to calculate, may be incorrect, and may not be repeatable (Smith, 2005). According to Lammers (2003), noncash gifts may or may not be included in the financial statements, and evaluation agencies have not been consistent in their treatment of them. The intent of the campaign, such as an endowment campaign, may also affect ratios by inflating fundraising results while deflating program expenses (McLean & Coffman, 2004).

Though review of these ratios from different sources shows distinct similarities, there have been a multitude of deviations to the basic formulas based upon the available fields from the Form 990. Ratios of one line item to another were straight forward, but several ratios were more complex and were calculated by using more than one line item to determine the numerator or denominator. In addition, there has been no consistency in the naming of specific calculated ratios. Even so, GuideStar has supported the use of ratios in evaluation. "Comparing a charity's financial numbers and ratios to those of organizations that are similar in size and program activities will yield a much better

understanding of that nonprofit's financial circumstances" (Analyst reports methodology, n.d., p. 1). Financial ratios provide a means to summarize organizational performance, and their analysis is one tool that can be used to improve planning and decision-making (Holman, Ihrke, & Grasse, n.d.).

Lammers (2003) has discussed being responsive to donors as a final reason to research financial performance ratios. She has indicated that several organizations have begun to calculate ratios for prospective donors to review, but they have not provided explanations and they have not factored in extenuating situations. She has further suggested that charitable directors be familiar with these ratios, be familiar with factors that influenced the organization's unique situation, and be aware that ratios of a similar name may be calculated using different variables by different organizations.

Ratios cannot indicate the quality of programs that the charity provides and they should not be used to "rank" a charity against another because they are merely indicators and in most cases carry unequal weight depending upon the goals of the institution at the time of analysis (Trussel, 2007). Three basic principles of financial analysis according to Prager, Sealy & Co. (2005) are that (a) ratios should be used to improve the organization financially in pursuit of its mission, (b) the data compared should be consistent, and (c) the results should not be construed as a measure of fulfilling the organization's mission.

Summary

A report from the National Consumer Supporter Technical Assistance Center (2005) discussed the evaluation of fundraising effectiveness by emphasizing that there is not just one measure to be considered:

> The most obvious measure of your fundraising success is the bottom line. Did you reach the fundraising dollar goals you set? It is important to remember, however, that there is more to evaluate than just the amount of dollars raised. Many issues that either contributed or detracted from the process of meeting the financial goal need to be evaluated as well. For example: How did staff, board and volunteers perform? Was new leadership discovered? Was the budget realistic? How diversified is the funding? Are funds being raised from many different sources or just a few? Are there one or two sources that account for the majority of funds raised? Are front-end systems (prospect identification, research, solicitation materials production) running properly? Are back-end systems (gift processing, donor acknowledgment, donor information tracking) running properly? (National Consumer Supporter Technical Assistance Center, 2005, p. 9-10)

Cutt and Murray (2000) stated that improvement of the nonprofit sector must begin with evaluation, progress to the establishment of accountability standards, and then to the pursuit of challenges and opportunities. "Rather than setting absolute standards, the emphasis should be on developing more and better kinds of relative standards--benchmark comparisons with others and trends over time" (Cutt & Murray, p. 140).

Comparing an institution's performance to that of other organizations allows the decision maker to identify areas of success or to recognize inefficiencies (Lammers, 2003). Rather than being used as a judgment tool, performance benchmarking should be utilized as a management tool to help guide financial strategy (Prager, Sealy & Co., 2005; Smith, 2005).

CHAPTER 3
METHODOLOGY

Introduction

The methods and procedure for conducting this study included the use of preexisting data and calculation of ratios based upon the preexisting data. This chapter expands upon the statement of the problem, the research questions, and the study population. Also discussed are the variables, secondary data sources, instrumentation, and the data collection and analysis procedures.

Statement of the Problem

Public community colleges have long relied upon state and federal funding to provide programs and educational opportunities for their students and constituents. Unfortunately, these sources of public funding have become less dependable and competition for available dollars has increased. As a result, community colleges have begun soliciting private funds in order to maintain or expand the quality and range of services offered to students.

Public community college foundations are relatively new to fundraising when compared with private universities or other nonprofit entities that have fundraising histories spanning hundreds of years. As such, evaluation has not been emphasized with a result of very little literature pertaining to the evaluation of public community college foundation fundraising being available. The review of the literature did not reveal any prior studies of public community college foundation performance ratios.

Research Questions

The following research questions guided this study:

1. What are the performance measurement ratios for community college foundations in Florida for 2002, 2003, and 2004?
2. Does the *contributions and grants ratio* (ratio of total contributions to total revenue) differ, on average, from 2002 to 2004?
3. Does the *fundraising expense ratio* (ratio of fundraising expenses to total expenses) differ, on average, from 2002 to 2004?
4. Does the *program service expense ratio* (ratio of program service expenses to total expenses) differ, on average, from 2002 to 2004?

Study Population

The 28 public community college foundations in Florida (Appendix F) were the population for this study. Due to the size of the population, all of these community college foundations were included in the study.

Variables, Secondary Data Sources, and Instrumentation

Data pertaining to corporate performance were collected by the researcher from public sources. Ex post facto data were utilized. No survey was conducted and human subjects were not involved. It was determined by the Institutional Review Board (IRB) that review of the study was not needed because it did not fit the definition of human subjects research (Appendix G). All data remained anonymous. The researcher created a

data collection instrument to be utilized to capture and organize the Form 990 information for each foundation. The data collection instrument consisted of 84 items and is shown in Appendix H.

Data for all 28 Florida community college foundations were derived from the Internal Revenue Service (IRS) Form 990 (Appendix I). Form 990 is submitted to the IRS on an annual basis by "tax-exempt organizations, nonexempt charitable trusts, and section 527 political organizations" (Department of the Treasury, 2005, p. 1) to provide information required of these organizations by the United States Internal Revenue Code (Department of the Treasury, 2005). The Form 990 must accurately and completely describe the organization's programs, accomplishments, and financial situation (Department of the Treasury, 2005). The Form 990 is divided into 12 sections and may include supporting schedules.

The Internal Revenue Code requires that an organization's completed Form 990 be available for public inspection (Department of the Treasury, 2005). As such, "some members of the public rely on Form 990. . . as the primary or sole source of information about a particular organization" (Department of the Treasury, 2005, p. 1).

Financial information pertaining to each community college foundation was obtained electronically from GuideStar, the pseudonym for Philanthropic Research, Inc. GuideStar is a 501(c)(3) public charity that acquires information from the Internal Revenue Service (IRS) Business Master File of exempt organizations and IRS Forms 990, 990-EZ, and 990-PF (Frequently, n.d.). With its free membership, GuideStar offers access to the most recent three years of each institution's Form 990. Older files are

archived and can be accessed by purchasing a subscription to GuideStar Premium. A free subscription to GuideStar Premium is available to students and academic researchers through their Edu@GuideStar program (Edu@GuideStar, n.d.). The internet address for GuideStar is http://www.guidestar.org.

A total of 28 items were recorded from each year's Form 990. Part I of the return was Revenue, Expenses, and Changes in Net Assets or Fund Balances. Of the 11 items extracted from this part, 6 pertained to the foundation's annual revenues and 5 pertained to the foundation's annual expenses. The remaining Form 990 information was captured from Part IV of the return, the Balance Sheet. Of the remaining 17 items, 11 described assets, 4 described liabilities, and 2 described net assets or fund balances.

Data Collection Procedures

The researcher, using a subscription to GuideStar Premium through the Edu@GuideStar program, accessed charitable information for each of the 28 Florida community college foundations. After searching for the institution name and accessing its GuideStar file, the researcher downloaded each foundation's Form 990 for years 2002, 2003, and 2004. These files were in a .pdf format and were saved to a disk for future reference.

The researcher reviewed each file to verify the entity name, that the reporting period corresponded to the year being studied, and that the reporting period was a full 12 months. Upon this review, it was found that the 2004 Form 990 for Institution 5 that was available on GuideStar was only for a 6-month period ending December 31, 2004. There

was no form for the fiscal year ending June 30, 2004 available online so the researcher contacted the foundation directly. The researcher was given a copy of the 12-month return for fiscal year ending June 30, 2004 and was informed that the fiscal year end had been changed to December 31, hence the 6-month filing. For this institution, there were actually two returns filed for 2004: one from July 1, 2003 to June 30, 2004 and one from July 1, 2004 to December 31, 2004. Because the 12-month return ending June 30, 2004 corresponded to the entity's reporting periods for the 2002 and 2003 tax years, this information was included in the study.

It was also found that the 2004 Form 990 for Institution 23 only reported for a 9-month period. The 2002 and 2003 returns had a common year ending date (June 30). The 2004 return had a year ending date that was earlier than the previous returns (March 31). This resulted in a shorter reporting period. All subsequent returns were for 12 months and had the new fiscal year ending date (March 31). Because 12-month data were not available for this institution, the data were excluded from the study for that year.

GuideStar did not have a Form 990 on file for Institution 24 for the 2003 tax year. Since this was information that was open to public inspection, the researcher contacted the foundation by telephone and requested that the form be transmitted by facsimile. The foundation complied, and this information was included in the study.

Calculation of Ratios

A total of 84 items (28 IRS figures for the 2002, 2003, and 2004 years) were entered into separate cells of a Microsoft Excel spreadsheet for each community college

foundation. The ratios that are shown in Appendix D were calculated using these data for the respective institutions.

A total of 27 ratios were identified in the literature as significant for the purposes of organizational evaluation and benchmarking from the research of Ritchie and Kolodinsky (2003), Greenlee and Bukovinsky (1998), and McLean and Coffman (2004) and were included in this study for analysis in Research Question 1. These 27 ratios were grouped into six categories that represent key aspects of financial evaluation including fiscal performance, fundraising efficiency, public support, adequacy of resources to support mission, use of resources to support mission, and investment performance and concentration as was consistent with the work by Ritchie and Kolodinsky and Greenlee and Bukovinsky.

Measures of Fiscal Performance

Ratios that pertained to the organization's overall general finances were categorized as measures of fiscal performance. The six ratios identified were: (a) *ratio of total revenue available for programs to total revenue* (total revenue available for programs divided by total revenue), (b) *ratio of total revenue to total assets* (total revenue divided by total assets), (c) *ratio of total revenue to total expenses* (total revenue divided by total expenses), (d) *ratio of total revenue minus total expenses to total revenue* ([total revenue minus total expenses] divided by total revenue), (e) *ratio of total revenue minus total expenses to total assets* ([total revenue minus total expenses] divided by total assets), and (f) *ratio of net assets (fund balances) to total assets* (net assets divided by

total assets). Calculations based on line items from the IRS Form 990 are shown in Appendix A.

The *ratio of total revenue available for programs to total revenue* indicates the proportion of the annual revenues that were available (not expended on non-program expenses) in that year. The *ratio of total revenue to total assets* is a measure that allows revenues to be compared in relation to the size of the institution as assessed by total assets. The *ratio of total revenue to total expenses* is a gauge to indicate whether the organization spent more (depleted savings) or less (increased savings) than its revenues for the year, and it also indicates the return for each dollar spent. The *ratio of total revenue minus total expenses to total revenue* indicates the proportion of revenues that were saved (if any) during the year. The *ratio of total revenue minus total expenses to total assets* is a savings ratio that equalizes comparisons based upon institution size as measured by total assets. The *ratio of net assets (fund balances) to total assets* indicates what proportion of total assets are net assets versus liabilities.

Measures of Fundraising Efficiency

The ratios pertaining to fundraising efficiency measure inflows (revenues) to outflows (fundraising expense). Of the 27 ratios, 2 were identified as measures of fundraising efficiency: (a) *ratio of direct public support to fundraising expenses* (direct public support divided by fundraising expenses) and (b) *ratio of total revenue to fundraising expenses* (total revenue divided by fundraising expenses). The *ratio of direct public support to fundraising expenses* indicates the number of dollars of direct public

support generated by each dollar expended on fundraising expenses. The *ratio of total revenue to fundraising expenses* indicates the total number of dollars raised in relation to each dollar spent on fundraising. Calculations based on line items from the IRS Form 990 are shown in Appendix A.

Measures of Public Support

Ratios pertaining to public support emphasize the fundraising outcomes (revenues from public sources) as indicators of voluntary support. Of the 27 ratios, 4 were identified as measures of public support: (a) the *ratio of total contributions (gifts, grants, and other contributions) to total expenses* (total contributions divided by total expenses); (b) the *ratio of total contributions (gifts, grants, and other contributions) to total assets* (total contributions divided by total assets); (c) the *contributions and grants ratio* (total contributions divided by total revenues); and (d) the *ratio of direct public support to total assets* (direct public support divided by total assets).

The *ratio of total contributions (gifts, grants, and other contributions) to total expenses* is a measure that demonstrates the relationship between total contributions and total expenses for the year. The *ratio of total contributions (gifts, grants, and other contributions) to total assets* allows contributions to be considered in relation to the organization's size as measured by total assets. The *contributions and grants ratio* measures the proportion of total revenues that is derived from voluntary or non-public sources. The *ratio of direct public support to total assets* is a calculation to measure

direct public support in relation to the organization's size as measured by total assets. Calculations based on line items from the IRS Form 990 are shown in Appendix A.

Measures of Adequacy of Resources to Support Mission

Ratios that were identified as measures of the organization's adequacy of resources to support the mission indicate financial solvency and the charity's ability to meet financial obligations (Greenlee & Bukovinsky, 1998). Of the 27 ratios, 6 were identified as measures of adequacy of resources to support mission: (a) *defensive interval* (the ratio of cash plus marketable securities plus receivables to average monthly expenses--[cash plus marketable securities plus receivables] divided by average monthly expenses); (b) *liquid funds indicator* (the ratio of fund balance minus restricted endowment minus land minus property, plant, and equipment to average monthly expenses--[fund balance minus restricted endowment minus land minus property, plant, and equipment] divided by average monthly expenses); (c) *accounts payable aging indicator* (the ratio of accounts payable to average monthly expenses--accounts payable divided by average monthly expenses); (d) *savings indicator* (the ratio of revenues minus expenses to total expenses--[revenues minus expenses] divided by total expenses); (e) *endowment ratio* (the ratio of endowment to average monthly expenses--endowment divided by average monthly expenses); and (f) *debt ratio* (the ratio of average total debt to average total assets--average total debt divided by average total assets).

The *defensive interval ratio* indicates the number of months, on average, that expenses could be paid from the current liquid asset positions plus receivables if no

additional inflows of liquid assets occurred. The *liquid funds indicator* indicates the number of months, on average, that expenses could be paid from assets other than restricted endowment, land, or property, plant, and equipment if no additional revenues were recognized. The *accounts payable aging indicator* indicates the number of months, on average, that it will take the organization to pay off its debt. The *savings indicator* is a measure of savings which indicates the organization's willingness to increase net assets or fund balance. The *endowment ratio* indicates, on average, the number of months of expenses that could be paid by permanently restricted dollars. The *debt ratio* indicates, on average, the proportion of assets that are present due to debt financing. Calculations based on line items from the IRS Form 990 are shown in Appendix B.

Measures of Use of Resources to Support Mission

Ratios pertaining to the use of resources to support the mission focused on the charity's efficiency in carrying out its mission. Five ratios were identified as measures of use of resources to support mission: (a) *fundraising efficiency ratio* (ratio of total contributions other than government grants to fundraising expense--total contributions other than government grants divided by fundraising expense), (b) *fundraising expense ratio* (ratio of fundraising expense to total expense--fundraising expense divided by total expense), (c) *management expense ratio* (ratio of management and general expense to total expense--management and general expense divided by total expense), (d) *program service expense ratio* (ratio of program service expense to total expense--program service

expense divided by total expense), and (e) *ratio of program service expense to total assets* (program service expense divided by total assets).

The *fundraising efficiency ratio* indicates the number of dollars of contributions, other than government grants, raised for each dollar expended on fundraising expenses. The *fundraising expense ratio* indicates the proportion of total expenses that are direct fundraising expenses. The *management expense ratio* indicates the proportion of total expenses that are administrative (not fundraising or program service expenses). The *program service expense ratio* indicates the proportion of total expenses that are utilized to support the organization's mission, through its programs. The *ratio of program service expense to total assets* provides a comparison ratio that allows program service expense to be evaluated across institutions of different size as measured by average total assets and is a measure of the efficient use of assets (Greenlee & Bukovinsky, 1998). Calculations based on line items from the IRS Form 990 are shown in Appendix B.

Measures of Investment Performance and Concentration

The sixth category of ratios identified is measures of investment performance and concentration. Four ratios were identified within this category: (a) *ratio of return on securities to total securities* (return on securities divided by total securities), (b) *ratio of net gain or loss on sale of securities to total securities* (net gain or loss on sale of securities divided by total securities), (c) *ratio of cash and savings to total assets* (cash and savings divided by total assets), and (d) *ratio of total securities to total assets* (total securities divided by total assets).

The *ratio of return on securities to total securities* shows the annual return on investments (dividends and interest) as a proportion of the total securities. The *ratio of net gain or loss on sale of securities to total securities* shows the annual return on investments (net gain or loss on sale of securities) as a proportion of the total securities. The *ratio of cash and savings to total assets* shows the proportion of total assets that are cash and savings (liquid). The *ratio of total securities to total assets* shows the proportion of total assets that are invested in securities.

These ratios were calculated by utilizing formulas in Microsoft Excel that referenced the appropriate spreadsheet data cells for the computation. A total of 81 ratios were calculated for each institution representing the 27 identified ratios calculated by year for 2002, 2003, and 2004.

Data Analysis Procedures

The Microsoft Excel calculations of ratios by community college foundations were imported to an SPSS data file. The ratios were imported to SPSS as calculated by Microsoft Excel, and they were not truncated. Blank cells retained their property as blank or missing data. Calculations which were invalid because the denominator was zero were imported as missing data.

Analysis for Research Question 1

Analysis for Research Question 1 included descriptive statistics for each performance measurement ratio identified above and in Appendix D for the years 2002,

2003, and 2004. Statistics chosen for this analysis included mean, median, standard deviation, minimum, maximum, range, skewness, kurtosis, and population (*N*). These descriptive statistics are presented in Tables 12 through 17.

The mean (*M*) is a measure of central tendency which is often referred to as the "average" (Lomax, 2001). It is an appropriate benchmarking tool for comparison purposes to evaluate one organization's performance as it relates to the average for all institutions. Whereas the mean could be influenced by extreme cases, the median is not. The median is another measure of central tendency that divides the distribution into two equal halves whereby 50% of the cases fall above the median and 50% of the cases fall below the median. It may be used as a means of benchmarking to allow an institution to evaluate itself against the midpoint of all the cases.

Standard deviation was included as a measure of dispersion. Assuming that the data were normally distributed, the standard deviation demonstrates the area or concentration of dispersion of cases around the mean to help the evaluator determine relative comparisons to the benchmark data. For example, 68% of the data will fall within plus or minus one standard deviation from the mean and 95% of the data will fall within plus or minus two standard deviations from the mean. Other measures of dispersion include minimum, maximum, and range. Minimum is the minimum value observed; maximum is the maximum value observed; and range is the difference between the two. Even though these measures of dispersion could be influenced by extreme cases, they allow the evaluator to analyze each calculated ratio in relation to the distribution of all the calculated ratios.

The third distributional analysis performed was for skewness. Skewness indicates the extent that a distribution of ratios deviates from perfect symmetry (Lomax, 2001). An evaluator may use this information to determine if the majority of occurrences were at the high (negatively skewed) or low (positively skewed) end of the distribution and to compare one organization's results with that of the population. The fourth property of distribution analyzed was kurtosis which allows the evaluator to determine if the distribution was normal, peaked (leptokurtic), or flat (platykurtic).

Analysis for Research Questions 2, 3, and 4

Three ratios were mentioned by separate and independent sources in the literature and were considered worthy of additional analysis: the *contributions and grants ratio*, the *fundraising expense ratio*, and the *program service expense ratio* (Greenlee & Bukovinsky, 1998; McLean & Coffman, 2004; Ritchie & Kolodinsky, 2003). Research Questions 2, 3, and 4 provided additional insight into these ratios by evaluating them over time. Utilizing the same population of 28 community college foundations in Florida, these ratios were analyzed by conducting a repeated measures analysis of variance (one within subjects design) for each performance measurement ratio, the dependent variable, to determine if the outcomes per ratio differed, on average, across time (2002 to 2004), the independent variable. Results from the data analysis for the research questions were used to document any trends or changes (positive or negative) occurring within the population pertaining to overall performance of Florida community college foundations.

The relationships between item, import sheet number, research question, and type of analysis are shown in Table 11.

Table 11
Relationship of Import Sheet Items to Research Questions

Item	Import Number	Research Questions	Analysis
Raw data to calculate ratios	Items 1 to 84		
27 preliminary performance measurement ratios	Items 85 to 165	1	Descriptive statistics by year for 2002, 2003, and 2004
Contributions and grants ratio	Items 85 to 87	2	Repeated measures analysis of variance (one within subjects design) for 2002-2004
Fundraising expense ratio	Items 88 to 90	3	Repeated measures analysis of variance (one within subjects design) for 2002-2004
Program service expense ratio	Items 91 to 93	4	Repeated measures analysis of variance (one within subjects design) for 2002-2004

Summary

The methods and procedures used to conduct this research have been described in this chapter. Included were the statement of the problem, research questions, population and a description of the use of preexisting data and calculation of ratios based upon the preexisting data. Variables, secondary data sources, and instrumentation, data collection procedures, and data analysis procedures were also discussed. Chapter 4 presents a summary of the analysis of the data.

CHAPTER 4
ANALYSIS OF THE DATA

Introduction

This study sought to explore the financial performance measurement ratios calculated for the 28 public community college foundations in Florida over a three year period from 2002 to 2004. Ex-post facto data were utilized from public sources. The population included all 28 institutions. This chapter presents the results of the study including data analysis for the four research questions.

Research Question 1

What are the performance measurement ratios for community college foundations in Florida for 2002, 2003, and 2004?

Measures of Fiscal Performance

Six of the 27 ratios were identified as measures of fiscal performance: (a) *ratio of total revenue available for programs to total revenue*, (b) *ratio of total revenue to total assets*, (c) *ratio of total revenue to total expenses*, (d) *ratio of total revenue minus total expenses to total revenue*, (e) *ratio of total revenue minus total expenses to total assets*, and (f) *ratio of net assets (fund balances) to total assets*. Descriptive statistics for measures of fiscal performance ratios for 2002, 2003, and 2004 are shown in Table 12.

Table 12
Descriptive Statistics for Measures of Fiscal Performance Ratios

Descriptors	2002	2003	2004
Ratio of Total Revenue Available for Programs to Total Revenue			
Mean	0.89	0.71	0.93
Median	0.91	0.90	0.94
Standard Deviation	0.07	0.89	0.05
Minimum	0.73	-3.79	0.79
Maximum	1.00	1.00	0.99
Range	0.27	4.79	0.19
Skewness	-1.04	-5.21	-1.01
Kurtosis	0.56	27.42	0.40
N	28	28	27
Ratio of Total Revenue to Total Assets			
Mean	0.17	0.15	0.26
Median	0.11	0.13	0.23
Standard Deviation	0.15	0.11	0.14
Minimum	0.07	0.01	0.10
Maximum	0.80	0.55	0.61
Range	0.72	0.54	0.51
Skewness	3.13	2.20	1.18
Kurtosis	11.23	6.88	1.07
N	28	28	27
Ratio of Total Revenue to Total Expenses			
Mean	1.47	1.51	2.34
Median	1.39	1.06	2.53
Standard Deviation	0.81	1.37	0.90
Minimum	0.16	0.08	0.39
Maximum	3.00	5.91	4.33
Range	2.84	5.83	3.94
Skewness	0.55	2.21	-0.13
Kurtosis	-0.61	4.80	-0.19
N	28	28	27

Descriptors	2002	2003	2004
Ratio of Total Revenue Minus Total Expenses to Total Revenue			
Mean	-0.07	-0.42	0.45
Median	0.28	0.05	0.60
Standard Deviation	1.15	2.36	0.45
Minimum	-5.29	-12.13	-1.59
Maximum	0.67	0.83	0.77
Range	5.96	12.96	2.36
Skewness	-3.77	-4.85	-3.85
Kurtosis	16.50	24.76	17.24
N	28	28	27
Ratio of Total Revenue Minus Total Expenses to Total Assets (ROA)			
Mean	-0.01	0.02	0.09
Median	0.03	0.00	0.10
Standard Deviation	0.24	0.09	0.23
Minimum	-1.10	-0.16	-0.97
Maximum	0.31	0.29	0.28
Range	1.41	0.45	1.25
Skewness	-3.86	0.60	-4.25
Kurtosis	18.42	1.91	20.52
N	28	28	27
Ratio of Net Assets (Fund Balances) to Total Assets			
Mean	0.93	0.93	0.97
Median	0.98	0.98	0.99
Standard Deviation	0.12	0.12	0.05
Minimum	0.48	0.45	0.76
Maximum	1.00	1.00	1.00
Range	0.52	0.55	0.24
Skewness	-2.81	-2.79	-3.13
Kurtosis	8.05	8.30	10.91
N	28	28	27

The *ratio of total revenue available for programs to total revenue* indicates the proportion of the annual revenues that were available (not expended on non-program expenses) in that year. It was calculated by subtracting non-program expenses (management and general, fundraising, and payments to affiliates) from the institution's total revenue and dividing that figure by total revenue. A positive value equal to 1.0 indicates that revenue available for programs was equal to total revenues. Therefore, there were no non-program expenses in that year and all of the revenues could be directed to programs. A negative value indicates that non-program expenses exceeded total revenues for the year. Therefore, none of the current year's revenues could be directed toward programs and money that was spent had to come from previous reserves or other sources.

For example, in 2003, the minimum observed value was -3.79. This means that non-program expenses exceeded annual revenues. All of the year's revenues were diverted to non-program expenses plus an amount equivalent to 379% of the annual revenues was spent out of prior reserves or other funding. The negative skew for 2003 (-5.21) means that one or more values were substantially lower than the majority. This is reflected in the minimum ratio value of -3.79. The positive kurtosis (27.42) suggests a very peaked distribution with most values falling within a very narrow range. This is reflected in a mean of 0.71 and median of 0.90, but a maximum of 1.0.

The *ratio of total revenue to total assets* is a measure that allows revenues to be compared among organizations in relation to the size of the institution as assessed by total assets. It is calculated by dividing the institution's total revenue for the year by the

total assets at year end. A value less than 1.0 indicates that annual revenues were less than total assets. A value greater than 1.0 indicates that annual revenues exceeded total assets, although this was not observed. Values approaching 1.0 indicate that the organization had revenues that were slightly below the valuation of assets at year end. Values closer to zero indicate that revenues were small in relation to the size of the institution. If comparing two institutions, the one with the higher *ratio of total revenue to total assets* would be interpreted as having a more successful year in relation to size, but if measuring in terms of actual dollars raised, this may not be the case.

The statistics indicate that in 2004 ($M = 0.26$) revenues in general were a higher proportion of total assets than they were in 2002 ($M = 0.17$) or 2003 ($M = 0.15$). This could be due to an unusually successful fundraising year, or it could be that the total assets declined due to expenditures or devaluation of assets. This was fairly consistent among the foundations as evidenced by a smaller range (0.51) in 2004 than was observed in 2002 (0.72) or 2003 (0.54).

The *ratio of total revenue to total expenses* is a gauge to indicate whether the organization spent more (depleted savings) or less (increased savings) than its revenues for the year, and it also indicates the return for each dollar spent. It is calculated by dividing total revenue by total expenses for the year. A value less than 1.0 indicates that the organization's total expenses exceeded the organization's total revenues for the year and therefore prior reserves or alternative sources of funding were utilized. A value greater than 1.0 indicates that the organization's total revenue exceeded its expenses for the year and brought in more money than it spent and increasing its asset base.

On average, the foundations spent less than they received all three years (2002, *M* = 1.47; 2003, *M* = 1.51; 2004, *M* = 2.34). In addition, all of the medians are greater than 1.0 which indicates that more than 50% of the institutions, each year, saved a portion of their revenues. The mean for 2004 (2.34) indicates that the proportion of revenues to expenses was higher in 2004 (for each dollar spent, $2.34 was realized) than in 2002 or 2003. This could be due to an unusually successful fundraising year or it could be that expenses were minimized.

The *ratio of total revenue minus total expenses to total revenue* is another measure of saving versus spending. It is calculated by dividing the difference from total revenue minus total expenses by the annual total revenue. A positive value indicates that revenues exceeded expenses. As the value approaches +1.0, the organization's expenses, as a proportion of total revenues are decreasing. As the positive value decreases towards zero, the organization's expenses as a proportion of total revenues are increasing. A zero value indicates that revenues equaled expenses. A negative value indicates that expenses exceeded revenues which were financed either from prior reserves or debt. As the expenses increase, the value will become more negative.

The minimum value for 2003 (-12.13) indicates that at least one organization had expenses that exceeded 12 times its annual revenue and depleted savings. All three medians (2002, 0.28; 2003, 0.05; 2004, 0.60) are positive indicating that more than 50% of the foundations had revenues exceeding their expenses. Skewness (2002, -3.77; 2003, -4.85; 2004, -3.85) and kurtosis (2002, 16.50; 2003, 24.76; 2004, 17.24) statistics larger than an absolute value of 2.0 indicate that this ratio did not follow a normal distribution.

The negative skew for 2003 (-4.85) means that there were one or more values that were substantially lower than the majority. This is reflected in the minimum ratio value of -12.13. The positive kurtosis (24.76) suggests a very peaked distribution with most values falling within a very narrow range. This is reflected in a mean of -0.42 and median of 0.05, but a maximum of 0.83.

The *ratio of total revenue minus total expenses to total assets* is also a ratio that equalizes comparisons of total revenue minus total expenses based upon institution size as measured by total assets. It is calculated by dividing the difference from revenue minus expenses by the total assets. A positive value indicates that revenues exceeded expenses and the proportion of revenues saved as total assets for the year. As the value approaches +1.0, the organization's expenses, as a proportion of total revenues are decreasing. As the positive value decreases towards zero, the organization's expenses as a proportion of total assets are increasing. A zero value indicates that revenues equaled expenses. A negative value indicates that expenses exceeded revenues.

A positive value, such as the maximum observed for 2003 (0.29) indicates that revenues exceeded expenses for the year, resulting in net savings. It also indicates that the amount "saved" was equivalent to 29% of the total assets for the year. A negative calculation, such as the mean for 2002 (-0.01), indicates that expenses exceeded revenues and that 1% of existing assets were utilized to fund annual expenditures in addition to all of the revenues.

The *ratio of net assets (fund balances) to total assets* indicates the proportion of total assets that are net assets versus liabilities. Total assets is equal to the sum of net

assets and liabilities. A value of 1.0 indicates that the organization does not have any liabilities. A value of zero indicates that the organization is completely debt financed and has no fund balance. The medians (2002, 0.98; 2003, 0.98; 2004, 0.99) indicate that over 50% of the organizations had less than 3% debt each year. The negative skews (2002, -2.81; 2003, -2.79; 2004, -3.13) indicate that that there were one or more values that were substantially lower than the majority each year as reflected in the minimum ratio values (2002, 0.48; 2003, 0.45; 2004, 0.76). The positive kurtoses (2002, 8.05; 2003, 8.30; 2004, 10.91) suggest very peaked distributions with most values falling within a very narrow range, which was especially evident in 2004 by the range of 0.24.

Measures of Fundraising Efficiency

Of the 27 ratios, 2 were identified as measures of fundraising efficiency: (a) *ratio of direct public support to fundraising expenses* and (b) *ratio of total revenue to fundraising expenses*. Descriptive statistics for measures of fundraising efficiency ratios for 2002, 2003, and 2004 are shown in Table 13.

Table 13
Descriptive Statistics for Measures of Fundraising Efficiency Ratios

Descriptors	2002	2003	2004
Ratio of Direct Public Support to Fundraising Expenses			
Mean	39.04	44.92	77.05
Median	23.58	31.56	27.39
Standard Deviation	43.21	41.93	94.48
Minimum	7.12	4.08	7.00
Maximum	183.96	154.90	305.48
Range	176.84	150.82	298.49
Skewness	2.50	1.87	1.63
Kurtosis	7.27	3.12	1.64
N	18	19	19
Ratio of Total Revenue to Fundraising Expenses			
Mean	76.97	68.26	197.34
Median	39.77	58.33	96.42
Standard Deviation	94.31	52.70	201.44
Minimum	7.78	0.33	21.33
Maximum	330.23	185.55	558.00
Range	322.44	185.22	536.67
Skewness	2.12	0.97	0.95
Kurtosis	3.80	0.12	-0.85
N	18	19	19

The *ratio of direct public support to fundraising expenses* indicates the number of dollars of direct public support generated by each dollar expended on fundraising expenses. It is calculated by dividing direct public support by fundraising expenses and it is a gauge of public (voluntary) support. Several organizations reported fundraising expense as zero (2002, $n = 10$; 2003, $n = 9$; 2004, $n = 9$). Given this value is the denominator of the ratio's equation, cases where the fundraising expenses reflected zero

were not calculated. The statistics reported, therefore, reflect those institutions whose fundraising expense was greater than zero.

The mean for 2004 (77.05) was higher than the means for either 2002 (39.04) or 2003 (44.92) which indicates that, on average, the foundations received more direct public support in 2004 ($77.05 generated for each $1.00 spent on fundraising) than they received in the previous two years. This amount was almost double the amount raised from this source just two years earlier.

The *ratio of total revenue to fundraising expenses* indicates the total number of dollars raised in relation to each dollar spent on fundraising. It is calculated by dividing total revenue by fundraising expenses. Several organizations reported fundraising expense as zero (2002, $n = 10$; 2003, $n = 9$; 2004, $n = 9$). Given this value is the denominator of the ratio's equation, cases where the fundraising expenses reflected zero were not calculated. The statistics reported, therefore, reflect those institutions whose fundraising expense was greater than zero. A value greater than 1.0 indicates that total revenue exceeded fundraising expenses. A value less than 1.0 indicates that fundraising expenses exceeded total revenue.

The mean results (2002, 76.97; 2003, 68.26; 2004, 197.34), again indicated that 2004 was a much more successful fundraising year than was 2002 or 2003. On average, the foundations recorded $179.34 in total revenue for every $1.00 spent on fundraising. This could be due to either higher than normal revenues or lower than normal fundraising expenses. At least one organization had fundraising expenses that exceeded total revenue as evidenced by the minimum observation in 2003 of 0.33. For every $1.00 that this

organization spent in fundraising expenses, it only received $0.33 in revenue. This could be due to timing and the launch of a significant campaign in one fiscal year with the expectation that revenues would be realized in future fiscal years. The distribution for 2004 displays normality, as suggested by skewness (0.95) and kurtosis (-0.85) values falling within an absolute value of 2.0. Given the 2004 mean of 197.34 and the standard deviation of 201.44, 68% of the distribution is between -4.10 and 398.78.

Measures of Public Support

Four of the 27 ratios were identified as measures of public support: (a) *ratio of total contributions (gifts, grants, and other contributions) to total expenses*, (b) *ratio of total contributions (gifts, grants, and other contributions) to total assets*, (c) *contributions and grants ratio (ratio of total contributions (gifts, grants, and other contributions) to total revenue)*, and (d) *ratio of direct public support to total assets*. Descriptive statistics for measures of public support ratios for 2002, 2003, and 2004 are shown in Table 14.

Table 14
Descriptive Statistics for Measures of Public Support Ratios

Descriptors	2002	2003	2004
Ratio of Total Contributions to Total Expenses			
Mean	1.16	1.30	1.70
Median	1.01	0.92	1.77
Standard Deviation	0.71	1.32	0.82
Minimum	0.12	0.16	0.36
Maximum	2.91	5.88	3.36
Range	2.79	5.72	3.00
Skewness	1.04	2.51	0.13
Kurtosis	0.86	6.08	-0.77
N	28	28	27
Ratio of Total Contributions to Total Assets			
Mean	0.13	0.12	0.18
Median	0.10	0.10	0.15
Standard Deviation	0.08	0.07	0.11
Minimum	0.03	0.04	0.05
Maximum	0.36	0.34	0.57
Range	0.32	0.31	0.52
Skewness	1.70	1.28	1.63
Kurtosis	2.71	1.76	3.98
N	28	28	27
Contributions and Grants Ratio: Unfiltered			
Mean	0.82	1.44	0.73
Median	0.79	0.85	0.80
Standard Deviation	0.26	3.21	0.24
Minimum	0.18	0.26	0.31
Maximum	1.32	17.72	1.39
Range	1.15	17.45	1.07
Skewness	-0.32	5.21	0.24
Kurtosis	0.46	27.39	0.91
N	28	28	27

Descriptors	2002	2003	2004
Contributions and Grants Ratio: Filtered to Exclude any Value >1.0			
Mean	0.71	0.73	0.71
Median	0.74	0.80	0.79
Standard Deviation	0.20	0.22	0.20
Minimum	0.18	0.26	0.31
Maximum	0.94	0.99	0.98
Range	0.76	0.73	0.67
Skewness	-1.27	-1.03	-0.66
Kurtosis	1.69	-0.01	-0.91
N	21	22	26
Ratio of Direct Public Support to Total Assets			
Mean	0.11	0.10	0.10
Median	0.08	0.08	0.08
Standard Deviation	0.08	0.07	0.08
Minimum	0.02	0.02	0.01
Maximum	0.36	0.34	0.35
Range	0.34	0.32	0.34
Skewness	2.12	1.58	1.54
Kurtosis	4.61	3.03	2.65
N	28	28	27

The *ratio of total contributions to total expenses* is a measure that demonstrates the value of revenues received through private and public contributions for each dollar expended by the organization. It is calculated by taking the sum of gifts, grants, and other contributions and dividing that value by total expenses for the year. A value greater than 1.0 indicates that contributions exceeded expenses; whereas a value less than 1.0 indicates that expenses were greater than contributions. Higher values indicate greater returns for each dollar expended. Values close to zero indicate that the organization incurred significantly more expenses during that period than it received in contributions.

In 2003, more than 50% of the organizations experienced expenses that exceeded their contributions as suggested by the median (0.92). This particular foundation only received $0.92 in contributions for each $1.00 that was spent. This could be due to an unfortunate fundraising year or it could be due to significant expenses in preparation for a future campaign. Even though the majority of foundations experienced less than breakeven, one in 2003 (maximum = 5.88) realized $5.88 in contributions for each $1.00 in expenses. On average, these organizations' contributions exceeded their expenses all three years as evidenced by the means (2002, 1.16; 2003, 1.30; 2004, 1.70).

The *ratio of total contributions to total assets* allows the actual amount of contributions to be evaluated in relation to the organization's size as measured by total assets. It is calculated by dividing total contributions (the sum of gifts, grants, and other contributions) by total assets. Comparison is relative and a higher value is considered better. A higher value indicates that the institution is bringing in a larger percentage of contributions in comparison to its size as measured by total assets than the comparison institution.

All observations were less than 1.0 indicating that total assets was greater than total contributions. Both the means (2002, 0.13; 2003, 0.12; 2004, 0.18) and the medians (2002, 0.10; 2003, 0.10; 2004, 0.15) increased in 2004 over observations for 2002 and 2003. For example in 2004, average contributions were equal to 18% of total assets while they were only equal to 13% in 2002. In order for this calculation to increase, the foundations either raised more in contributions or experienced a decline in total assets for

the year. A decline in total assets could be due to expenses that exceeded revenues or it could be due to declines in fair market values of investments.

The *contributions and grants ratio* measures the proportion of total revenues that is derived from voluntary or non-public sources. It is calculated by dividing total contributions by total revenues. A higher value (greater than 0.50) indicates that the organization is primarily reliant upon voluntary support and a lower value (less than 0.50) indicates that the organization is primarily dependent upon public support.

When the entire population was included, the maximum ratio calculated for each year (2002, 1.32; 2003, 17.72; 2004, 1.39) indicated that private contributions exceeded total revenues. In cases where this occurred, the organizations experienced some sort of net loss that led to a decline of total revenues. Since this ratio was intended to demonstrate a proportional relationship to the whole, any cases where the ratio exceeded 1.0 were filtered out, and the analysis was repeated with the remaining data.

Seven cases were filtered out ($n = 21$) for 2002; six cases were filtered out ($n = 22$) for 2003; and two cases were filtered out ($n = 26$) for 2004. A review of the boxplot for the contributions and grants ratio shows the possibility of outliers for the 2002 data (Figure 1). On average, the foundations relied on voluntary support for over 70% of their revenues as indicated by the mean each year (2002, 0.71; 2003, 0.73; 2004, 0.71). Given evidence of a normal distribution as suggested by the skewness and kurtosis values falling within an absolute value of 2.0, 68% of the distributions are between the means plus or minus one standard deviation (2002, 0.20; 2003, 0.22; 2004, 0.20). For example, for 2004, 68% of the distribution falls between 0.51 and 0.91.

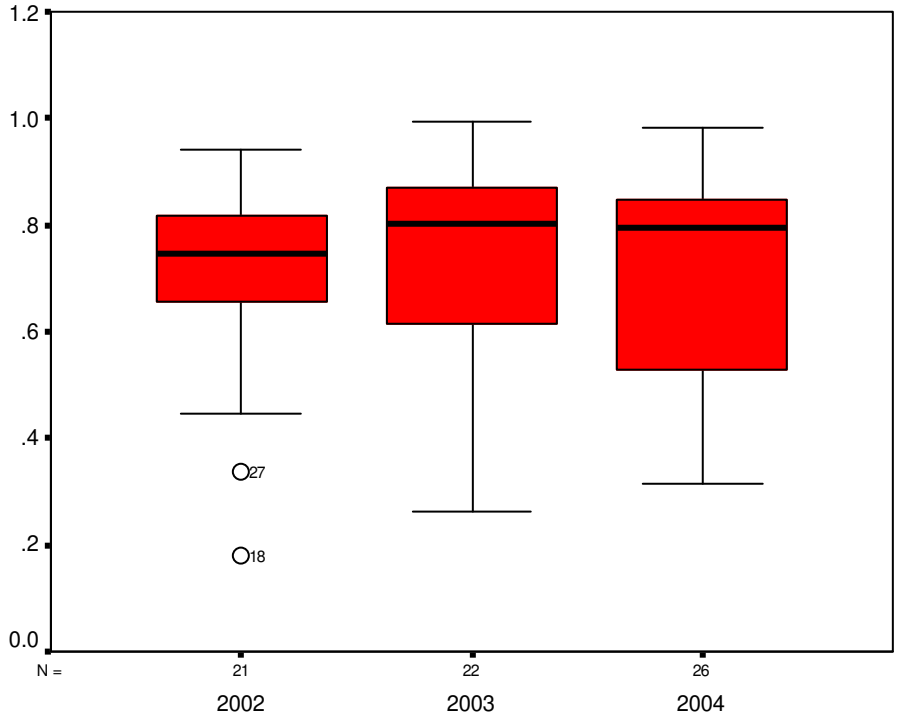


Figure 1. Contributions and Grants Ratio by Year (Filtered to Exclude Cases >1.0)

The *ratio of direct public support to total assets* is a calculation that equalizes comparisons of direct public support based upon institution size as measured by total assets. It is calculated by dividing direct public support by total assets. If comparing two institutions, the one with the higher *ratio of direct public support to total assets* would be interpreted as receiving a higher percentage of voluntary contributions directly from the public in relation to size, but if measuring in terms of actual dollars raised, this may not be the case.

The means (2002, 0.11; 2003, 0.10; 2004, 0.10) were very close to each other with only 1% of difference between 2002 and 2003. 2003 and 2004 were equivalent. The medians (2002, 0.08; 2003, 0.08; 2004, 0.08) were slightly lower than the means

indicating that some cases observed were significantly higher. This was also suggested by the positive skews observed (2002, 2.12; 2003, 1.58; 2004, 1.54). Positive kurtosis statistics (2002, 4.61; 2003, 3.03; 2004, 2.65) suggest a very peaked distribution with most values falling within a very narrow range (2002, 0.34; 2003, 0.32; 2004, 0.34). For example, in 2002, the mean and median were both 0.08, but the minimum observed was 0.02.

Measures of Adequacy of Resources to Support Mission

Of the 27 ratios, 6 were identified as measures of adequacy of resources to support mission: (a) *defensive interval* (ratio of cash plus marketable securities plus receivables to average monthly expenses); (b) *liquid funds indicator* (ratio of fund balance minus restricted endowment minus land minus property, plant, and equipment to average monthly expenses); (c) *accounts payable aging indicator* (ratio of accounts payable to average monthly expenses); (d) *savings indicator* (ratio of revenues minus expenses to total expenses); (e) *endowment ratio* (ratio of endowment to average monthly expenses); and (f) *debt ratio* (ratio of average total debt to average total assets). Descriptive statistics for measures of adequacy of resources to support mission ratios for 2002, 2003, and 2004 are shown in Table 15.

Table 15
Descriptive Statistics for Measures of Adequacy of Resources to Support Mission Ratios

Descriptors	2002	2003	2004
	Defensive Interval Ratio		
Mean	33.04	40.75	30.50
Median	16.58	21.68	20.81
Standard Deviation	38.15	53.11	34.61
Minimum	1.57	1.26	2.46
Maximum	143.13	214.82	170.85
Range	141.56	213.56	168.39
Skewness	1.55	2.00	2.89
Kurtosis	1.74	3.57	10.24
N	28	28	27
	Liquid Funds Indicator		
Mean	32.13	41.66	50.78
Median	31.59	34.41	45.20
Standard Deviation	37.17	45.46	33.59
Minimum	-53.54	-67.89	-8.58
Maximum	110.90	131.25	121.12
Range	164.43	199.14	129.70
Skewness	-0.09	-0.22	0.45
Kurtosis	0.50	0.01	-0.46
N	28	28	27
	Accounts Payable Aging Indicator		
Mean	1.22	1.93	1.17
Median	0.24	0.43	0.39
Standard Deviation	1.72	3.32	1.51
Minimum	0.00	0.00	0.00
Maximum	5.45	12.34	4.73
Range	5.45	12.34	4.73
Skewness	1.29	2.24	1.27
Kurtosis	0.37	4.59	0.40
N	28	28	27

Descriptors	2002	2003	2004
	Savings Indicator		
Mean	0.47	0.51	1.34
Median	0.39	0.06	1.53
Standard Deviation	0.81	1.37	0.90
Minimum	-0.84	-0.92	-0.61
Maximum	2.00	4.91	3.33
Range	2.84	5.83	3.94
Skewness	0.55	2.21	-0.13
Kurtosis	-0.61	4.80	-0.19
N	28	28	27
	Endowment Ratio		
Mean	77.57	73.47	78.35
Median	65.29	60.48	60.56
Standard Deviation	59.26	57.53	59.30
Minimum	0.00	0.00	0.00
Maximum	232.84	226.74	220.48
Range	232.84	226.74	220.48
Skewness	1.05	1.06	0.99
Kurtosis	0.73	0.51	0.38
N	28	28	27
	Debt Ratio		
Mean	0.10	0.07	0.05
Median	0.01	0.02	0.02
Standard Deviation	0.18	0.12	0.07
Minimum	0.00	0.00	0.00
Maximum	0.78	0.54	0.31
Range	0.78	0.54	0.31
Skewness	2.56	2.80	2.66
Kurtosis	6.71	8.18	7.11
N	28	28	27

The *defensive interval ratio* indicates the number of months, on average, that expenses could be paid from the current liquid asset positions plus receivables. It is

calculated by taking the sum of cash, marketable securities, and receivables and dividing it by average monthly expenses. As a measure of liquidity, it is useful in situations where the future of revenues is not certain in terms of amount, timing, or frequency. On its own, a higher value reflects a more stable institution, but one should also evaluate the organization's cash position to ensure that it is not inappropriately high.

On average, it was found that the foundations could cover between 30 to 40 months of expenses from their current liquid asset positions including receivables as demonstrated by their means (2002, 33.04; 2003, 40.75; 2004, 30.50). The medians, however, were significantly lower (2002, 16.58; 2003, 21.68; 2004, 20.81). This indicated that at least one observation was extremely high for each year. For example, in 2002, the median was 16.58, the mean was 33.04, and the standard deviation was 38.15. Since skewness (1.55) and kurtosis (1.74) indicated a normal distribution, 95% of the observations fell within the range of -43.26 and 109.34. The maximum value observed for 2002 was 143.13 which was outside of this range.

The *liquid funds indicator* indicates the number of months, on average, that expenses could be paid from assets other than restricted endowment, land, or property, plant, and equipment which are all assets that cannot be used for general purposes or easily be converted into cash. It is calculated by subtracting restricted endowment, land, and property, plant, and equipment from fund balance and dividing that amount by average monthly expenses. This is a more conservative approach to liquidity because it calculates assets that are available to cover expenses after factoring out any liabilities that the organization has on record. As a measure of liquidity, it is useful in situations where

the future of revenues is not certain in terms of amount, timing, or frequency. On its own, a higher value generally reflects a more stable institution, but one should also evaluate the organization's cash position to ensure that it is not inappropriately high.

For all three years, the minimum value calculated was negative (2002, -53.54; 2003, -67.89; 2004, -8.58) which indicated that at least one foundation reported having a fund balance that was less than the sum of restricted endowment, land, and property, plant, and equipment. Since fund balance is equal to total assets minus total liabilities, the liability positions for these institutions were high. Any observation less than zero indicates that due to leverage, the organization would not have any assets to cover expenses for any period of time should they fail to receive additional revenues. Overall, the results suggest that the organizations were increasing their asset positions over this time frame as demonstrated by the means (2002, 32.13; 2003, 41.66; 2004, 50.78). For example, in 2002 the charities could cover 32.13 months of expenses, in 2003, they could cover 41.66 months of expenses, and in 2004, they could cover 50.78 months of expenses from assets other than restricted endowment, land, and property, plant, and equipment.

The *accounts payable aging indicator* indicates the number of months, on average, that it will take the organization to pay off its debt and is calculated by taking the sum of accounts payable and grants payable and dividing that amount by average monthly expenses. This ratio demonstrates a charity's credit-worthiness by indicating how quickly it pays its bills. A low indicator is reflective of timely payments and a high indicator could indicate credit or cash flow problems.

The results indicate that some of the foundations carried zero debt as shown by the minimums (2002, 0.00; 2003, 0.00; 2004, 0.00) while at least one carried debt in 2003 equivalent to over 12 months of average monthly expense payments (maximum = 12.34). The majority of observations were less than the means (2002, 1.22; 2003, 1.93; 2004, 1.17) with half of the cases being below the medians (2002, 0.24; 2003, 0.43; 2004, 0.39) bounded by zero minimums. On average, the foundations carried less than two months of payables as indicated by the means (2002, 1.22; 2003, 1.93; 2004, 1.17). For example, skewness (0.55) and kurtosis (-0.61) statistics for 2004 indicate a normal distribution. With a standard deviation of 1.51, half of the foundations paid their expenses within 0.39 months, 68% of them paid their expenses within 2.68 months, and 95% of them paid their expenses within 4.19 months.

The *savings indicator* is a measure of savings which indicates if the organization contributed to or spent from savings, and it indicates the magnitude of the saving or spending in relation to the total expenses for the year. It is calculated by dividing the difference from total revenue minus total expenses by the annual total expenses. A positive value indicates that revenues exceeded expenses. A zero value indicates that revenues equaled expenses, and a negative value indicates that expenses exceeded revenues. In order for this calculation to exceed 1.0, the total revenues had to be at least double the total expenses. Organizations with a high *savings indicator* should be observed to ensure that the program spending goals of the organization are being met.

The mean (1.34) and median (1.52) for 2004 are significantly higher than the results for 2002 (M = 0.47, median = 0.39) or 2003 (M = 0.51, median = 0.06) indicating

that either revenues increased or expenses decreased, on average, for the foundations for that year. Even though there was evidence of at least one organization in 2004 depleting savings (minimum = -0.61), 68% of the observations were positive falling between 0.44 and 2.24 (M = 1.34, SD = 0.90) as suggested by a normal distribution (skewness = -0.13, kurtosis = -0.19).

The *endowment ratio* indicates, on average, the number of months of expenses that could be covered if permanently restricted dollars were utilized to fund monthly expenses. It is a measure of the organization's long-term financial ability to rely on investment income streams rather than uncertain voluntary cash flows and it is calculated by dividing permanently restricted assets (endowment) by average monthly expenses. A zero value indicates that the charity has no permanently restricted assets. A value between zero and 1.0 indicates that average monthly expenses exceed the value of the endowment, and a value greater than 1.0 indicates that permanently restricted assets exceed average monthly expenses. A high observation indicates that the charity may be able to rely on earnings from investment of the permanently restricted assets to fund monthly expenses if contributions were sparse.

The range of results (in terms of months) for this ratio was large (2002, 232.84; 2003, 226.74; 2004, 220.48), with zero being the minimum for all three years. The means (2002, 77.57; 2003, 73.47; 2004, 78.35) were slightly higher than the medians (2002, 65.29; 2003, 60.48; 2004, 60.56) indicating that there were a few cases that reported higher for each year. Even so, skewness (2002, 1.05; 2003, 1.06; 2004, 0.99) and kurtosis

(2002, 0.73; 2003, 0.51; 2004, 0.38) statistics indicate normal distributions as they all fall within the absolute value of 2.0.

The *debt ratio* indicates, on average, the proportion of assets that are present due to debt financing. It is calculated by taking the average of the total liabilities for the year (beginning and ending values) and dividing it by the average of the total assets for the year (beginning and ending values). A zero calculation indicates that the organization does not carry any debt; a value between 0.00 and 1.0 indicates that total liabilities are less than total assets, and a value greater than 1.0 would indicate financial insolvency because total liabilities would exceed total assets. A high ratio or one that has increased over a prior year may indicate future liquidity problems or could affect the charity's ability to secure additional debt in the future.

The means (2002, 0.10; 2003, 0.07; 2004, 0.05) declined over the three-year period reflecting either a decrease in average total debt or an increase in average total assets for the institutions studied. The increase in assets could be due to investment performance or net savings from prior years. During this period, average liabilities dropped from 10% of total assets to 5% of total assets. Positive skews (2002, 2.56; 2003, 2.80; 2004, 2.66) indicate that there were one or more variables substantially higher than the majority and this is reflected in the maximums (2002, 0.78; 2003, 0.54; 2004, 0.31). Positive kurtoses (2002, 6.71; 2003, 8.18; 2004, 7.11) larger than an absolute value of 2.0 suggest peaked distributions with most values falling within a narrow range. For 2004, this is reflected by a mean of 0.05, a median of 0.02, and a minimum of 0.00.

Measures of Use of Resources to Support Mission

Of the 27 ratios, 5 were identified as measures of use of resources to support mission: (a) *fundraising efficiency ratio* (ratio of total contributions other than government grants to fundraising expense), (b) *fundraising expense ratio* (ratio of fundraising expense to total expense), (c) *management expense ratio* (ratio of management and general expense to total expense), (d) *program service expense ratio* (ratio of program service expense to total expense), and (e) *ratio of program service expense to total assets*. Descriptive statistics for measures of use of resources to support mission ratios for 2002, 2003, and 2004 are shown in Table 16.

Table 16
Descriptive Statistics for Measures of Use of Resources to Support Mission Ratios

Descriptors	2002	2003	2004
	Fundraising Efficiency Ratio		
Mean	39.19	50.79	95.27
Median	23.58	37.32	35.00
Standard Deviation	43.11	47.39	113.10
Minimum	7.12	4.08	7.00
Maximum	183.96	154.90	359.71
Range	176.84	150.82	352.71
Skewness	2.51	1.43	1.39
Kurtosis	7.32	0.94	0.65
N	18	19	19
	Fundraising Expense Ratio		
Mean	0.03	0.03	0.02
Median	0.01	0.01	0.01
Standard Deviation	0.04	0.05	0.04
Minimum	0.00	0.00	0.00
Maximum	0.17	0.23	0.13
Range	0.17	0.23	0.13
Skewness	2.22	3.26	2.18
Kurtosis	6.11	12.57	3.96
N	28	28	27
	Management Expense Ratio		
Mean	0.11	0.12	0.13
Median	0.10	0.10	0.12
Standard Deviation	0.09	0.09	0.09
Minimum	0.00	0.00	0.02
Maximum	0.38	0.35	0.33
Range	0.38	0.34	0.31
Skewness	1.48	1.09	0.80
Kurtosis	2.93	0.63	-0.10
N	28	28	27

Descriptors	2002	2003	2004
Program Service Expense Ratio			
Mean	0.87	0.85	0.85
Median	0.88	0.89	0.87
Standard Deviation	0.09	0.11	0.11
Minimum	0.62	0.57	0.57
Maximum	1.00	1.00	0.98
Range	0.38	0.43	0.41
Skewness	-1.17	-1.08	-1.00
Kurtosis	1.98	0.66	0.34
N	28	28	27
Ratio of Program Service Expense to Total Assets			
Mean	0.14	0.11	0.14
Median	0.08	0.09	0.10
Standard Deviation	0.19	0.09	0.20
Minimum	0.03	0.02	0.03
Maximum	0.83	0.47	1.03
Range	0.80	0.45	1.00
Skewness	3.13	2.40	4.04
Kurtosis	9.43	7.05	17.78
N	28	28	27

The *fundraising efficiency ratio* indicates the number of dollars of contributions, other than government grants, raised for each dollar expended on fundraising expenses. It is calculated by dividing the difference from total contributions minus government grants by fundraising expense. Several organizations reported fundraising expense as zero (2002, $n = 10$; 2003, $n = 9$; 2004, $n = 9$). Given this value is the denominator of the ratio's equation, cases where the fundraising expenses reflected zero were not calculated. The statistics reported, therefore, reflect those institutions whose fundraising expense was greater than zero. A zero calculation would indicate that that there were no contributions

other than government grants received during the year. Observations less than 1.0 indicate that fundraising expenses exceeded contributions other than government grants. Observations greater than 1.0 indicate that contributions other than government grants exceeded fundraising expenses.

Over the three-year period, the means (2002, 39.13; 2003, 50.79; 2004, 95.27) increased indicating that either the total contributions other than government grants increased or the fundraising expenses decreased. As mentioned in the limitations of this study, a decrease in fundraising expense could be merely incidental to differences in accounting practices and reporting across the years. In 2004, the median value was 35.00; half of the institutions received $35.00 in total contributions other than government grants for each $1.00 spent on fundraising. For that year, half of the observations were between the minimum (7.00) and the median (35.00); however, there was at least one case that was substantially higher (maximum = 359.71) that influenced the increase in mean (95.27). Even so, skewness (1.39) and kurtosis (0.65) suggested a normal distribution.

The *fundraising expense ratio* indicates the proportion of total expenses that are direct fundraising expenses. It is calculated by dividing fundraising expenses by total expenses. A lower ratio indicates that fewer dollars are expended by the charity for fundraising purposes as a proportion of total expenditures and a higher ratio indicates that more dollars are expended, leaving less money available for other types of expenses. Other expenses that are factored into total expenses are program services expenses and management and general expenses.

The minimum fundraising expense ratio calculated was zero (2002, 0.00; 2003, 0.00; 2004, 0.00) which indicated that at least one organization did not spend any money on fundraising. It is unlikely for a charity whose purpose is to generate voluntary contributions to not incur fundraising expense, so this is likely an example of accounting inconsistencies as mentioned in the limitations of this study. The highest observation was for 2003 (maximum = 0.23) which meant that 23% of that organization's total expenses were fundraising expenses, and 77% were program expenses or management and general expenses.

A boxplot for the *fundraising expense ratio*, shown in Figure 2, suggests a positive skew and the possibility of outliers for all three years. The positive skews (2002, 2.22; 2003, 3.26; 2004, 2.18) mean that there were one or more values that were substantially higher than the majority as reflected by the maximums (2002, 0.17; 2003, 0.23; 2004, 0.13). The positive kurtosis statistics (2002, 6.11; 2003, 12.57; 2004, 3.96) suggest very peaked distributions with most values falling within a very narrow range. For 2003, this was reflected in a minimum of 0.00, a median of 0.01, and a mean of 0.03.

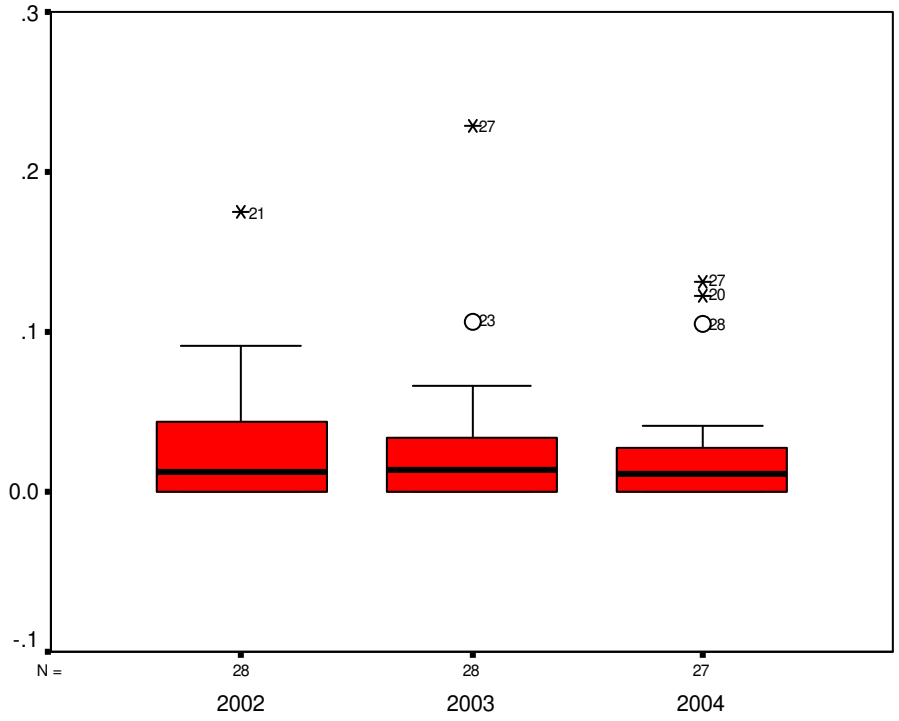


Figure 2. Fundraising Expense Ratio by Year

The *management expense ratio* demonstrates the proportion of total expenses that are for management and general purposes. It is calculated by dividing management and general expense by total expense. A zero calculation means that the organization did not incur any management and general expenses; all expenses were either for programs or fundraising. In general, a lower value is preferable so that more resources could potentially be utilized in support of the organization's mission (programs).

For 2004, all of the foundations reported a nonzero expense item for management and general as indicated by the minimum of 0.02. At least one organization in 2002 and 2003 reported that zero dollars were expended for management and general (2002, minimum = 0.00; 2003, minimum = 0.00) indicating that all expenses were either for

programs or fundraising. The 2004 mean of 0.13 indicates that, on average, 13% of the charities' total expenses for the year were for management and general expenses. Given evidence of a normal distribution as suggested by the skewness (0.80) and kurtosis (-0.10) values falling within an absolute value of 2.0, 68% of the distribution is between 0.04 and 0.22.

The *program service expense ratio* indicates the proportion of total expenses that are utilized to support the organization's mission, through its programs. It is calculated by dividing program services expense by total expenses. A value less than 1.0 indicates the percentage of total expenses that were directed toward the organization's mission. The remaining percentage of total expenses would be used for nonprogram purposes such as management and general, or fundraising. A value of 1.0 indicates that the institution reported that 100% of its expenses were in support of its programs and no money was spent for management and general or fundraising.

Some of the institutions reported that 100% of their expenses were directed toward program support as indicated by the maximums observed (2002, 1.00; 2003, 1.00). All of the organizations reported that a majority of their expenses were directed toward program support as demonstrated by the minimums (2002, 0.62; 2003, 0.57; 2004, 0.57) whereas the means (2002, 0.87; 2003, 0.85; 2004, 0.85) and medians (2002, 0.88; 2003, 0.89; 2004, 0.87) indicate that a considerable number of organizations reported that they spent in excess of 85% of expenses on program support. For example, in 2004, on average, the foundations spent 85% (M = 0.85) of their expenses on program support with the remaining 15% being used for management and general or fundraising.

Given evidence of a normal distribution in 2004 as suggested by the skewness (-1.00) and kurtosis (0.34) values falling within an absolute value of 2.0, and the mean of 0.85 and the standard deviation of 0.11, 68% of the distribution is between 0.74 and 0.96, but given the median of 0.87, 50% of the observations were between 0.87 and the maximum of 0.98. A review of the boxplots (Figure 3) suggests the possibility of outliers for all three years.

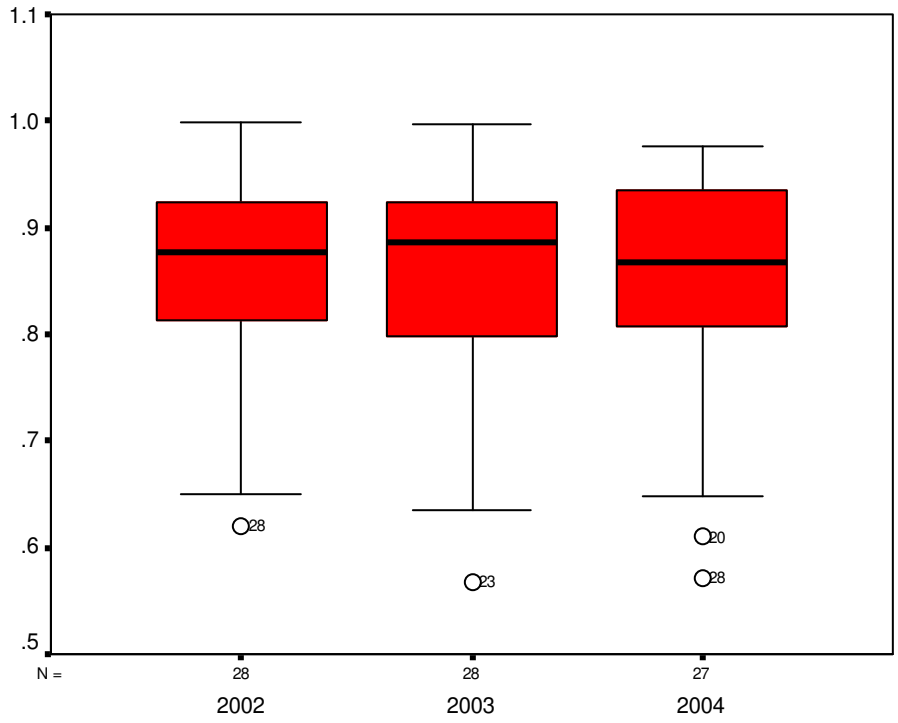


Figure 3. Program Service Expense Ratio by Year

The *ratio of program service expense to total assets* provides a ratio that allows program service expense to be compared across institutions of different size as measured by average total assets. It is calculated by dividing program service expense by average total assets which are determined by using beginning of year and end of year data. As an

efficiency ratio, it is a measure of the organization's ability to use its assets to provide programs or services and in general, a higher value indicates greater efficiency.

In 2004, the maximum observed value was 1.03 which indicates that at least one organization had program service expenses that exceeded the organization's average total assets for the year (program service expenses equaled 103% of average total assets). In this case, it would be beneficial to review total revenues and total expenses to gauge the impact of other expenses such as management and general and fundraising and their relationship to average total assets. The organization's overall asset depletion or asset augmentation for the year should also be reviewed.

On average, the foundations only spent an amount equivalent to a small fraction of their average total assets on program services (2002, $M = 0.14$; 2003, $M = 0.11$; 2004, $M = 0.14$). For example, in 2004, 50% of the charities had a *ratio of program service expense to average total* assets between the minimum (0.03) and the median (0.10), a range of 0.07. The remaining 50% had a ratio between the median (0.10) and the maximum (1.03), a range of 0.93. The positive skews (2002, 3.13; 2003, 2.40; 2004, 4.04) indicate that there were one or more values that were substantially higher than the majority as reflected by the maximums (2002, 0.83; 2003, 0.47; 2004, 1.03). The positive kurtosis statistics (2002, 9.43; 2003, 7.05; 2004, 17.78) suggest very peaked distributions with most values falling within a very narrow range.

Measures of Investment Performance and Concentration

Of the 27 ratios, 4 were identified as measures of investment performance and concentration: (a) *ratio of return on securities to total securities*, (b) *ratio of net gain or loss on sale of securities to total securities*, (c) *ratio of cash and savings to total assets*, and (d) *ratio of total securities to total assets*. Descriptive statistics for measures of investment performance and concentration ratios for 2002, 2003, and 2004 are shown in Table 17.

The *ratio of return on securities to total securities* shows the annual return on investments (dividends and interest) as a proportion of the total securities. It is calculated by dividing return on securities by total securities. The result reflects the organization's cash returns from investments in the form of dividends or interest, but not unrealized or realized capital gains that would be incurred from a sale. A high value indicates that the organization is invested to generate cash flow (income allocations) as opposed to investments for long-term growth (market appreciation) which generally are not income-producing.

Table 17
Descriptive Statistics for Measures of Investment Performance and Concentration Ratios

Descriptors	2002	2003	2004
Ratio of Return on Securities to Total Securities			
Mean	0.03	0.02	0.02
Median	0.03	0.02	0.02
Standard Deviation	0.02	0.02	0.02
Minimum	-0.04	0.00	0.00
Maximum	0.06	0.09	0.05
Range	0.10	0.09	0.05
Skewness	-1.00	1.78	0.88
Kurtosis	1.85	5.28	0.50
N	19	20	21
Ratio of Net Gain or Loss on Sale of Securities to Total Securities			
Mean	-0.02	-0.05	0.01
Median	-0.01	-0.03	0.00
Standard Deviation	0.03	0.08	0.04
Minimum	-0.12	-0.32	-0.12
Maximum	0.00	0.00	0.10
Range	0.12	0.32	0.22
Skewness	-1.82	-2.33	-1.07
Kurtosis	3.24	6.11	6.07
N	19	20	21
Ratio of Cash and Savings to Total Assets			
Mean	0.22	0.24	0.21
Median	0.11	0.17	0.18
Standard Deviation	0.25	0.25	0.17
Minimum	0.00	0.01	0.00
Maximum	0.98	0.98	0.55
Range	0.98	0.97	0.55
Skewness	1.73	1.49	0.66
Kurtosis	2.68	2.01	-0.72
N	28	28	27

Descriptors	2002	2003	2004
Ratio of Total Securities to Total Assets			
Mean	0.46	0.46	0.52
Median	0.58	0.53	0.54
Standard Deviation	0.37	0.35	0.34
Minimum	0.00	0.00	0.00
Maximum	0.98	0.99	0.97
Range	0.98	0.99	0.97
Skewness	-0.14	-0.21	-0.46
Kurtosis	-1.59	-1.49	-1.11
N	28	28	27

Several organizations reported total securities as zero (2002, $n = 9$; 2003, $n = 8$; 2004, $n = 7$). Given this value is the denominator of the ratio's equation, cases where the total securities reflected zero investments were not calculated. The statistics reported, therefore, reflect those institutions whose total securities value was greater than zero. The results indicated that some organizations had zero dividends or interest in 2003 (minimum = 0.00) and 2004 (minimum = 0.00). There are several factors of portfolio allocation that could impact these results. In these cases, it is likely that the charity did not hold fixed income investments such as bonds or interest-bearing cash accounts. If they did, the payment or maturity dates did not coincide with the reporting period. In addition, any stocks were more than likely growth stocks that did not pay dividends as opposed to income stocks or preferred stocks.

On average in 2004, the foundations reported a 2% return on investments due to dividends and interest ($M = 0.02$). Given evidence of a normal distribution in 2004 as suggested by the skewness (0.88) and kurtosis (0.50) values falling within an absolute

value of 2.0, and the standard deviation of 0.02, 68% of the distribution is between 0.00 (which is also the minimum) and 0.04.

The *ratio of net gain or loss on sale of securities to total securities* shows the annual return on investments (net gain or loss on sale of securities) as a proportion of the total securities. It is calculated by dividing the net gain or loss on sale of securities by total securities. A positive value indicates that overall during the year, the organization made money on the sale of securities. That means that the market value of the securities appreciated over time and the sale price was greater than the purchase price. A zero value indicates that the foundation did not sell any securities during the reporting period. A negative value indicates that overall during the year, the charity lost money on the sale of securities; the sale price was lower than the original purchase price. A high value could indicate both favorable investment selections (of individual securities) and an overall increase in the performance of financial markets and likewise low or negative values could indicate poor investment selections or overall market decline.

Several organizations reported total securities as zero (2002, $n = 9$; 2003, $n = 8$; 2004, $n = 7$). Given this value is the denominator of the ratio's equation, cases where the total securities reflected zero were not calculated. The statistics reported, therefore, reflect those institutions whose total securities was greater than zero. The results indicate that none of the organizations experienced a net gain on securities sales in 2002 (maximum = 0.00) or 2003 (maximum = 0.00). In 2003, even though the largest recorded loss was 0.32 (32%), half of the charities experienced net losses less than 3% (median = -0.03). The negative skew (2003, -2.33) indicates that there were one or more values that

were substantially lower than the majority as reflected by the minimum (2003, 0.32). The positive kurtosis (2003, 6.11) suggests a very peaked distribution with most values falling within a very narrow range.

The *ratio of cash and savings to total assets* shows the proportion of total assets that are cash and savings (liquid). It is calculated by dividing net cash and savings by total assets and can be used as a gauge to determine if the organization has an appropriate amount of cash holdings (liquidity). In general, lower values are favorable as long as the organization's financial obligations are current and the cash and savings amount covers the immediate cash flow needs. An unusually high value could indicate that the organization is holding a higher than necessary amount of assets in low- or no-income-producing accounts. This could put the organization at risk of market fluctuations in the future by not being able to maintain purchasing power; however, these investments are generally considered "safe" so market conditions should be considered when reviewing this ratio. However, a high value could indicate that the organization was anticipating a significant expenditure in the immediate future.

Statistics for 2002 demonstrated the largest range (0.98) of responses. At least one organization reported having no cash or savings at year end (minimum = 0.00) and at least one organization reported having 98% of its total assets comprised of cash and savings (maximum = 0.98). Half of the charities in 2002 reported holding between zero and 11% of their assets in cash and savings (median = 0.11). Given a mean of 0.22 (2002) and a positive skew of 1.73 (2002), there was evidence of one or more values that were

substantially higher (maximum = 0.98). The positive kurtosis (2002, 2.68) suggested a very peaked distribution with most values falling within a very narrow range.

The *ratio of total securities to total assets* shows the proportion of total assets that are invested in securities and it is calculated by dividing total securities by total assets. A zero calculation indicates that the organization does not hold any investments in securities. All assets would be of other types such as cash, receivables, land, or property, plant and equipment. A value of 1.0 would indicate that 100% of the total assets were invested in securities. This ratio should be evaluated in consideration of the charity's long-term goals and expected needs for liquidity to fund cash obligations.

The results indicate that the foundations studied varied greatly between having zero securities (2002, minimum = 0.00; 2003, minimum = 0.00; 2004, minimum = 0.00) or having nearly all assets invested as securities (2002, maximum = 0.98; 2003, maximum = 0.99; 2004, maximum = 0.97). In these extreme cases, the organization's investment allocations should be evaluated to ensure that it reflects the short-term and long-term financial needs of the charity in terms of cash (liquidity) and growth (hedging against inflation). Diversification within and between asset classes should also be evaluated in conjunction with the foundation's overall mission to minimize against risk for losses.

In 2004, the mean (0.52) was very close to the median (0.54). Given evidence of a normal distribution in 2004 as suggested by the skewness (-0.46) and kurtosis (-1.11) values falling within an absolute value of 2.0, and the standard deviation of 0.34, 68% of

the distribution is between 0.18 and 0.86. That means that 68% of the institutions reported that between 18% and 86% of their total assets were invested in securities.

Research Question 2

Does the *contributions and grants ratio* (ratio of total contributions to total revenue) differ, on average, from 2002 to 2004?

Research Question 2 was analyzed by performing a repeated measures analysis of variance (one within subjects design) for the *contributions and grants ratio*, the dependent variable, to determine if the outcomes differed, on average, across time, the independent variable. The null hypothesis was that all means were equal (H_o: $\mu_1 = \mu_2 = \mu_3$). The alternative hypothesis was that all means were not equal (H_1: not all the μ were equal). Every test was performed at an alpha of .05.

A total of 13 cases were filtered prior to analyses due to the ratios exceeding 1.0 leaving a final sample size of 15. This ratio is intended to calculate the proportion of total revenues that can be accounted for by contributions and grants. In some cases, the total of contributions and grants exceeded total revenues. This could be due to different accounting practices or due to net investment losses. In either case, a ratio exceeding 1.0 does not provide the researcher with any gauge on the organization's dependence on public versus private support. Had these values been included, they would have biased the results.

The assumption of sphericity was met, χ^2 (2) = 3.109, Mauchly's $W = .787$, $p = .211$. Therefore, this report reflects univariate results. While a review of boxplots (Figure

1) indicated the possibility of an outlier for the 2002 *contributions and grants ratio*, it was determined to be a legitimate calculation and was retained in the analysis due to the small sample size.

Skewness (2002, -1.54; 2003, -.95; 2004, -.31) and kurtosis (2002, 3.00; 2003, .08; 2004, -1.29) of residuals suggested that normality was a reasonable assumption for the 2003 and 2004 observations. Kurtosis of residuals for the 2002 *contributions and grants ratio* suggested non-normality. However, the skewness of the residual suggested that normality was a reasonable assumption. The Shapiro-Wilks test of normality indicated the distributions of residuals were reasonably normal for the 2003 *contributions and grants ratio* ($W = .891$, $p = .069$) and the 2004 *contributions and grants ratio* ($W = .929$, $p = .266$). The Shapiro-Wilks test indicated that the 2002 *contributions and grants ratio* may exhibit non-normality ($W = .880$, $p = .048$). According to Lomax (2001), the F test is robust to moderate in violations of this assumption, and a violation is less severe for events with equal ns (as in the case of this study) or large ns. There is a slightly increased chance of a Type I or Type II error due to the kurtosis.

Variances of the residuals of the within-subjects factors were reviewed to gauge homogeneity of variances, and this assumption was met. The ratio of the largest to smallest variance was well within the recommended 1:4 ratio (2002, $s^2 = .04$; 2003, $s^2 = .05$; 2004, $s^2 = .04$). The assumption for independence was met because each institution was observed only once, and the entire population being studied was included. There was no random sampling or grouping (Lomax, 2001).

The results for the univariate ANOVA shown in Table 18 indicated that there was not a significant time (within-subjects) effect, $F(2, 28) = .792$, $p = .463$, partial eta squared = .054 (2002, $M = .70$, $SD = .21$; 2003, $M = .71$, $SD = .22$; 2004, $M = .65$, $SD = .21$). The effect size was calculated by partial eta squared and was found to be 0.054, generally interpreted to be a small effect. This indicates that approximately 5% of the variance in the *contributions and grants ratio* was accounted for by time. The results of the repeated measures ANOVA supported the null hypothesis that, on average, there was no difference in the *contributions and grants ratio* over time.

Table 18
Test of Within Subjects Effects--Contributions and Grants Ratio

Source (Sphericity assumed)	*df*	*F*	*p*	Partial Eta Squared
Contributions and Grants Ratio	2	0.792	0.463	0.054
Error	28			

Research Question 3

Does the *fundraising expense ratio* (ratio of fundraising expenses to total expenses) differ, on average, from 2002 to 2004?

In responding to Research Question 3, data were analyzed by performing a repeated measures analysis of variance (one within subjects design) for the *fundraising expense ratio*, the dependent variable, to determine if the outcomes differed, on average, across time, the independent variable. The null hypothesis was that all means were equal

(H_o: $\mu_1 = \mu_2 = \mu_3$). The alternative hypothesis was that all means were not equal (H_1: not all the μ were equal). Every test was performed at an alpha of .05.

All ratios were under the value of 1.0. Therefore, there were no cases initially filtered from this analysis. The assumption of sphericity was met, but tests of normality were not met. In a review of boxplots and tests for normality, two cases were identified as extreme and were subsequently filtered. One case was missing data. This resulted in a final sample size of 25 for this analysis.

The assumption of sphericity was not met, χ^2 (2) = 7.129, Mauchly's $W = .733$, $p = .028$. Therefore, the Greenhouse-Geisser correction was applied to the degrees of freedom, and the univariate results are thus reflective of this adjustment. While the review of boxplots (Figure 2) indicated the possibility of additional outliers for all three variables, they were determined to be legitimate calculations and were retained in the analysis due to the small sample size.

Skewness (2002, 1.09; 2003, 1.43; 2004, 2.48) and kurtosis (2002, -0.08; 2003, 1.21; 2004, 6.17) of residuals suggested that normality was a reasonable assumption for the 2002 and 2003 *fundraising expense ratios* because all values were within an absolute value of 2.0. However, skewness and kurtosis suggested non-normality for the 2004 *fundraising expense ratio*. The Shapiro-Wilks test of normality indicated the distributions of residuals suggested non-normality for the 2002 *fundraising expense ratio* ($W = .799$, $p < .001$), the 2003 *fundraising expense ratio* ($W = .789$, $p < .001$), and the 2004 *fundraising expense ratio* ($W = .660$, $p < .001$). According to Lomax (2001), the *F* test is

robust to moderate violations of this assumption, and a violation is less severe for events with equal *n*s (as in the case of this study) or large *n*s.

Variances of the residuals of the within-subjects factors were reviewed to gauge homogeneity of variances. This assumption was met as the ratio of the largest to smallest variance was well within the recommended 1:4 ratio (2002, $s^2 = .001$; 2003, $s^2 < .001$; 2004, $s^2 = .001$). Since a balanced design was utilized, results were relatively robust to violations of normality (Lomax, 2001). The assumption for independence was met because each institution was only observed once, and the entire population being studied was included. There was no random sampling or grouping (Lomax).

The results for the univariate ANOVA shown in Table 19 indicated that there was not a significant time (within-subjects) effect, $F(1.58, 37.90) = .254$, $p = .725$, partial eta squared = .01 (2002, $M = .02$, $SD = .02$; 2003, $M = .02$, $SD = .02$; 2004, $M = .02$, $SD = .03$). The effect size was calculated by partial eta squared and was found to be 0.01, generally interpreted to be a small effect. This indicates that approximately 1% of the variance in the *fundraising expense ratio* was accounted for by time. The results of the repeated measures ANOVA supported the null hypothesis that, on average, there was no difference in the *fundraising expense ratio* over time.

Table 19
Test of Within Subjects Effects--Fundraising Expense Ratio

Source (Greenhouse-Geisser)	*df*	*F*	*p*	Partial Eta Squared
Fundraising Expense Ratio	1.579	0.254	0.725	0.01
Error	37.899			

Research Question 4

Does the *program service expense ratio* (ratio of program service expenses to total expenses) differ, on average, from 2002 to 2004?

In responding to Research Question 4, data were analyzed by performing a repeated measures analysis of variance (one within subjects design) for the *program service expense ratio*, the dependent variable, to determine if the outcomes differed, on average, across time, the independent variable. The null hypothesis was that all means were equal (H_o: $\mu_1 = \mu_2 = \mu_3$). The alternative hypothesis was that all means were not equal (H_1: not all the μ were equal). Every test was performed at an alpha of .05.

All ratios were under the value of 1.0. Therefore, there were no cases initially filtered from this analysis. The assumption of sphericity was met; however, tests of normality were not met. The researcher identified one case as extreme by a review of boxplots (Figure 3) and subsequently filtered that case out. One case was missing data so the final sample size was 26.

The assumption of sphericity was again met, χ^2 (2) = 3.456, Mauchly's W = .866, p = .178. Therefore, this report reflects univariate results. While the review of boxplots indicated the possibility of additional outliers for the 2004 *program service expense ratio*, it was determined to be a legitimate calculation and was retained in the analysis due to the small sample size.

Skewness (2002, -.85; 2003, -.99; 2004, -.92) and kurtosis (2002, 1.72; 2003, .90; 2004, .29) of residuals suggested that normality was a reasonable assumption for all three ratios. The Shapiro-Wilks test of normality indicated the distributions of residuals were

reasonably normal for the 2002 *program service expense ratio* ($W = .945$, $p = .177$) and the 2003 *program service expense ratio* ($W = .933$, $p = .093$). The Shapiro-Wilks test indicated that the 2004 *program service expense ratio* may exhibit non-normality ($W = .914$, $p = .032$). According to Lomax (2001), the F test is robust to moderate violations of this assumption, and a violation is less severe for events with equal *n*s (as in the case of this study) or large *n*s.

Variances of the residuals of the within-subjects factors were reviewed to gauge homogeneity of variances, and this assumption was met as the ratio of the largest to smallest variance was well within the recommended 1:4 ratio (2002, $s^2 = .01$; 2003, $s^2 = .01$; 2004, $s^2 = .01$). The assumption for independence was met because each institution was observed only once and the entire population being studied was included. There was no random sampling or grouping (Lomax, 2001).

The results for the univariate ANOVA shown in Table 20 indicated that there was not a significant time (within-subjects) effect, $F(2, 50) = .917$, $p = .406$, partial eta squared = .035 (2002, $M = .87$, $SD = .08$; 2003, $M = .87$, $SD = .09$; 2004, $M = .86$, $SD = .10$). The effect size was calculated by partial eta squared and was found to be 0.035, generally interpreted to be a small effect. This indicates that approximately 4% of the variance in the *program service expense ratio* was accounted for by time. The results of the repeated measures ANOVA supported the null hypothesis that, on average, there was no difference in the *program service expense ratio* over time.

Table 20
Test of Within Subjects Effects--Program Service Expense Ratio

Source (Sphericity assumed)	*df*	*F*	*p*	Partial Eta Squared
Program Service Expense Ratio	2	0.917	0.406	0.035
Error	50			

Summary

This chapter contains a summary of the data analyzed by the researcher organized by the four guiding research questions. Performance measurement ratios were calculated for each Florida public community college foundation for the years 2002, 2003, and 2004 based upon information reported on the institution's Form 990. These ratios were then analyzed and described by year using measures of central tendency and variability. Three ratios, the *contributions and grants ratio*, the *fundraising expense ratio*, and the *program service expense ratio* were analyzed to determine if outcomes varied over time. The final chapter will include a summary and discussion of the findings and recommendations for future research.

CHAPTER 5
SUMMARY, DISCUSSION OF FINDINGS, AND RECOMMENDATIONS

Introduction

This chapter contains a review of the purpose of the study, statement of the problem, and design of the study. A summary and discussion of findings is organized around the four research questions which guided the study. Also included are recommendations for future research.

Purpose of the Study

The focus of this research was to examine the performance of Florida public community college foundations from 2002-2004 using performance ratios. The findings from this study may assist community college foundation leaders to better understand the performance of their own organizations and compare this performance to other similar organizations. This information may then be used to establish relative performance standards and influence the strategic initiatives to improve an existing foundation.

Statement of the Problem

Public community colleges have long relied upon state and federal funding to provide programs and educational opportunities for their students and constituents. Unfortunately, these sources of public funding have become less dependable and competition for available dollars has increased. As a result, community colleges have

begun soliciting private funds in order to maintain or expand the quality and range of services offered to students.

Public community college foundations are relatively new to fundraising when compared with private universities or other nonprofit entities that have fundraising histories spanning hundreds of years. As such, evaluation has not been emphasized, and there is very little literature pertaining to the evaluation of public community college foundation fundraising.

Design of the Study

This study was designed to research the financial performance measurement ratios for the 28 public community college foundations in Florida. Ex post facto data that were publicly available were utilized to acquire the information needed for the statistical analyses; therefore, the population was comprised of all 28 Florida community college foundations. Data collected from each institution's Form 990 were evaluated for a three-year period including 2002, 2003, and 2004. This raw data was then utilized in the computation of 27 performance measurement ratios that were calculated by year for 2002, 2003, and 2004.

A total of 81 ratios (27 ratios for three years) were calculated. To answer Research Question 1, descriptive statistics were calculated. To answer Research Questions 2-4, a repeated measures analysis of variance was computed to determine if the *contributions and grants*, *fundraising expense*, and *program service expense ratios* varied over time.

Summary and Discussion of Findings

Cutt and Murray (2000) considered the process of evaluation as a means of constructive learning. In this study, the researcher analyzed 27 financial performance ratios that were calculated for Florida's 28 public community college foundations for 2002, 2003, and 2004. After a comprehensive literature search, there were no studies found that had empirically examined the use of ratios as related to community college foundation development. Analysis using performance measurement ratios to evaluate development in education was scarce.

Research Question 1

What are the performance measurement ratios for community college foundations in Florida for 2002, 2003, and 2004?

The purpose of this research question was to create a set of financial performance benchmarks for Florida public community college foundations. Cutt and Murray (2000) stated that improvement of the nonprofit sector must begin with evaluation prior to progressing to the establishment of accountability standards and the pursuit of challenges and opportunities. "Rather than setting absolute standards, the emphasis should be on developing more and better kinds of relative standards--benchmark comparisons with others and trends over time" (Cutt & Murray, p. 140).

Cutt and Murray (2000) indicated that one reason interpretation has been difficult was a general lack of standards within the nonprofit sector. "With few exceptions there

are no ‘industry norms’ or even benchmarks for comparison with other organizations or programmes” (Cutt & Murray, p. 96).

Comparing an institution’s performance to that of other organizations allows the decision maker to identify areas of success or to recognize inefficiencies (Lammers, 2003). Cutt and Murray (2000) stated that utilizing relative standards through benchmarking can be constructive if they are viewed as indicators of potential problems to be solved. They may also be used as peer-group benchmarking to assist in determining an organization’s fundraising potential (Loessin, 1997).

These benchmarks are intended merely as guides and should not be used as a sole means of evaluating the performance of the organization (McLean & Coffman, 2004; Trussel, 2006b). Performance on these ratios could be affected by various factors including the foundation’s age, size, location, accounting methods, and fiscal year end (McLean & Coffman, Trussel).

Rather than being used as a judgment tool, performance benchmarking should be utilized as a management tool to help guide financial strategy (Prager, Sealy & Co., 2005; Smith, 2005). Decision makers should utilize this comparative data to identify strengths, potential weaknesses, and opportunities for improvement by identifying major changes, recognizing causes of change, and determining the reasonableness of the changes based on the causes keeping in mind that the ultimate evaluative tool for a charity is its ability to fulfill its mission (McLean & Coffman, 2004, Trussel, 2006b).

The ratios were categorized into six areas as defined by the literature. These were: (a) measures of fiscal performance (Ritchie & Kolodinsky, 2003); (b) measures of

fundraising efficiency (Ritchie & Kolodinsky); (c) measures of public support (Ritchie & Kolodinsky); (d) measures of adequacy of resources to support mission (Greenlee & Bukovinsky, 1998); (e) measures of use of resources to support mission (Greenlee & Bukovinsky); and (f) measures of investment performance and concentration (Ritchie & Kolodinsky).

Measures of Fiscal Performance

Six ratios were included in this study as measures of fiscal performance: (a) *ratio of total revenue available for programs to total revenue* (total revenue available for programs divided by total revenue), (b) *ratio of total revenue to total assets* (total revenue divided by total assets), (c) *ratio of total revenue to total expenses* (total revenue divided by total expenses), (d) *ratio of total revenue minus total expenses to total revenue* ([total revenue minus total expenses] divided by total revenue), (e) *ratio of total revenue minus total expenses to total assets* ([total revenue minus total expenses] divided by total assets), and (f) *ratio of net assets (fund balances) to total assets* (net assets divided by total assets). Descriptive statistics for these ratios have been displayed in Table 12 and discussed in Chapter 4. Key findings are summarized in this section.

The *ratio of total revenue to total expenses* was a gauge to indicate whether the organization spent more (depleted savings) or less (increased savings) than its revenues for the year, and it also indicated the return for each dollar spent. The Florida community college foundations that were studied, on average, had revenues that exceeded expenses for each year as measured by the means (2002, 1.47; 2003, 1.51; 2004, 2.34) being

greater than 1.0. In 2004, the mean (2.34) for the *ratio of total revenue to total expenses* was close to the mean observed in Ritchie and Kolodinsky's 1999 study of university foundations (2.54). University foundations, on average, had revenues amounting to $2.54 for each dollar expensed. While the Florida community college foundations experienced performance comparable to the university foundations in 2004, they had a lesser return for 2002 and 2003 which may more accurately reflect expected performance.

The *ratio of total revenue minus total expenses to total revenue* indicated the proportion of revenues that were saved (if any) during the year. Trussel (2006b) called it the *ratio of surplus to revenues*. Trussel found that 15% of the revenues were saved for the education institution that represented the median in his 1999 study. Results for the Florida community college foundations varied widely. The median for 2002 reflected a savings of 28%, along with a 5% savings for 2003 and 60% savings for 2004. At least one Florida community college foundation spent more than it received in revenues each year as evidenced by values less than zero for the minimums (2002, -5.29; 2003, -12.13; 2004, -1.59).

The *ratio of total revenue minus total expenses to total assets* was a ratio that equalized comparisons of total revenue minus total expenses based upon institution size as measured by total assets. It was called the *ratio of surplus to total assets* by Trussel (2006b). At least one Florida community college foundation spent more than it received in revenues each year as evidenced by values less than zero for the minimums (2002, -1.10; 2003, -0.16; 2004, -0.97). Half of the Florida community college foundations studied had revenues that exceeded expenses as evidenced by the positive medians (2002,

0.03; 2003, 0.00; 2004, 0.10). The medians found within this study were similar to the 0.06 median found for the education sector by Trussel.

The *ratio of net assets (fund balances) to total assets* indicated the proportion of total assets that were net assets versus liabilities. Trussel (2006b) found that organizations within the education sector, on average in 1999, held net assets of 77% which meant that 23% of the total assets were leveraged. The Florida community college foundations studied had significantly higher net asset positions with less than 7% liability positions each year, on average, as indicated by the means (2002, 0.93; 2003, 0.93; 2004, 0.97). For example, in 2004, 68% of the organizations had a net assets position between 0.94 and 1.00.

Measures of Fundraising Efficiency

Two ratios were identified as measures of fundraising efficiency: (a) *ratio of direct public support to fundraising expenses* (direct public support divided by fundraising expenses) and (b) *ratio of total revenue to fundraising expenses* (total revenue divided by fundraising expenses). Descriptive statistics for these ratios have been shown in Table 13 and discussed in Chapter 4. Key findings are summarized in this section.

The *ratio of direct public support to fundraising expenses* indicated the number of dollars of direct public support generated by each dollar expended on fundraising expenses. Ritchie and Kolodinsky (2003) found the mean for the *ratio of direct public support to fundraising expenses* to be 84 with a standard deviation of 312 in their 1999

study of university foundations. In this case, 68% of the institutions studied brought in between zero and $396 with the average being $84 for every dollar spent on fundraising.

Using this measure, the Florida community college foundations were less efficient. For example, the average observed for 2002 was $39.04 with 68% of the organizations distributed with the range from $7.12 to $82.25. Efficiency appeared to be higher in 2004 with a mean of $77.05. For 2004, 68% of the observations fell within $7.00 and $171.53, but the low median of 27.39 indicated that 50% of the observations fell between $7.00 and $27.39 raised in direct public support for each dollar expended on fundraising.

The *ratio of total revenue to fundraising expenses* indicated the total number of dollars raised in relation to each dollar spent on fundraising. Results in 2004 for the Florida community college foundations were higher than those observed for either 2002 or 2003. In 2004, Florida community college foundations brought in, on average, $197.34 in total revenues for every dollar spent on fundraising. This was higher than the mean (121) for university foundations in 1999 as calculated by Ritchie and Kolodinsky (2003).

The minimum for the *ratio of direct public support to fundraising expenses* that was found for community college foundations was 4.08, but the minimum for the *ratio of total revenue to fundraising expenses* was 0.33 which indicated that even though all of the organizations had positive inflows from direct public support, there were activities that actually caused a net loss for at least one organization in 2003 as evidenced by the *ratio of total revenue to fundraising expenses* that was less than 1.0. For each dollar spent on fundraising, that particular organization only received $0.33 in total revenues.

Measures of Public Support

Four ratios were identified as measures of public support: (a) the *ratio of total contributions (gifts, grants, and other contributions) to total expenses* (total contributions divided by total expenses); (b) the *ratio of total contributions (gifts, grants, and other contributions) to total assets* (total contributions divided by total assets); (c) the *contributions and grants ratio* (total contributions divided by total revenues); and (d) the *ratio of direct public support to total assets* (direct public support divided by total assets). Descriptive statistics for these ratios have been displayed in Table 14 and discussed in Chapter 4. Key findings are summarized in this section.

The *ratio of total contributions to total expenses* was a measure that demonstrated the value of revenues received through private and public contributions for each dollar expended by the organization. Ritchie and Kolodinsky (2003) found that the average university foundation in 1999 had $1.80 in contributions for each dollar expended. In addition, they found that 68% of the university foundations received between zero and $4.70 in total contributions for each dollar expensed.

For 2002 and 2003, Florida community college foundations had a lower mean *ratio of total contributions to total expenses* (2002, 1.16; 2003, 1.30) than Ritchie and Kolodinsky (2003) found in 1999. However, the Florida community college foundations experienced a rise in 2004 with a mean of 1.70 and a median of 1.77. At least one Florida community college foundation each year spent more than it received in total contributions as evidenced by the minimums (2002, 0.12; 2003, 0.16; 2004, 0.36) being less than 1.0.

The *contributions and grants ratio* measured the proportion of total revenues that were derived from voluntary or non-public sources. Greenlee and Bukovinsky (1998) found that the median education institution studied in 1993 relied on voluntary support for 46.4% of its revenues. This was higher than the mean (0.26) found by Trussel (2006b) for the same sector in 1999. Reviewing the ratio for university foundations in 1999, Ritchie and Kolodinsky (2003) found the mean to be 0.65 with a standard deviation of 0.18. This means that 68% of the university foundations studied had a *contributions and grants ratio* within one standard deviation of the mean, between 47% and 83%. Considering that half of the organizations studied by Greenlee and Bukovinsky were minimally reliant upon public support (less than 46.4% reliant), it was apparent that university foundations were considerably more reliant than the education sector as a whole.

One of the limitations of the present study was that reporting of financial results varied by institution based upon the accounting methods and interpretations employed. This was evident for the *contributions and grants ratio*. Some organizations reported losses against their revenues which made their total revenue figure less than the sum of contributions and grants. This made the calculation compute at values greater than 1.0 which contradicted the purpose of the ratio (to determine the organization's reliance upon public support). A ratio exceeding 1.0 would not have provided the researcher with any gauge on the organization's dependence on public versus private support. For the purposes of this study, events where the *contributions and grants ratio* were greater than 1.0 were factored out. For 2002, 7 cases were filtered out leaving a sample size of 21. For

2003, 6 cases were filtered out leaving a sample size of 22. For 2004, 2 cases were filtered out leaving a sample size of 26. Had these values been included, they would have biased the results.

The results of this study indicated that Florida community college foundations were reliant upon voluntary support for the majority of their revenues, slightly more so than Ritchie and Kolodinsky's (2003) findings for university foundations (0.65). On average, Florida community college foundations received 71% of their revenues in 2002 and 2004 from voluntary support, and 73% for 2003. The medians (2002, 0.74; 2003, 0.80; 2004, 0.79) were higher than the means which indicated that over 50% of the institutions studied had a higher reliance on voluntary support than the observed mean. This was noted as a point of caution by Greenlee and Bukovinsky (1998) since voluntary contributions were not considered a stable revenue source.

The *ratio of direct public support to total assets* was a calculation used to measure direct public support in relation to the organization's size as measured by total assets. Ritchie and Kolodinsky (2003) found that, on average, university foundations had a mean *ratio of direct public support to total assets* of 0.16 with 68% of the institutions falling within a range of 0.05 to 0.27. Results for the Florida community college foundations were slightly lower. For example, the mean for 2002 was 0.11 with a standard deviation of 0.08. Therefore, 68% of the observations fell between 0.03 and 0.19. However, the median was 0.08, so half of the observations were concentrated below 0.08.

Measures of Adequacy of Resources to Support Mission

Six ratios were identified as measures of adequacy of resources to support mission: (a) *defensive interval* (the ratio of cash plus marketable securities plus receivables to average monthly expenses--[cash plus marketable securities plus receivables] divided by average monthly expenses); (b) *liquid funds indicator* (the ratio of fund balance minus restricted endowment minus land minus property, plant, and equipment to average monthly expenses--[fund balance minus restricted endowment minus land minus property, plant, and equipment] divided by average monthly expenses); (c) *accounts payable aging indicator* (the ratio of accounts payable to average monthly expenses--accounts payable divided by average monthly expenses); (d) *savings indicator* (the ratio of revenues minus expenses to total expenses--[revenues minus expenses] divided by total expenses); (e) *endowment ratio* (the ratio of endowment to average monthly expenses--endowment divided by average monthly expenses); and (f) *debt ratio* (the ratio of average total debt to average total assets--average total debt divided by average total assets). Descriptive statistics for these ratios have been displayed in Table 15 and discussed in Chapter 4. Key findings are summarized in this section.

The *defensive interval ratio* indicated the number of months, on average, that expenses could be paid from the current liquid asset positions plus receivables if no additional inflows of liquid assets occurred. When Greenlee and Bukovinsky (1998) studied institutions related to education, they calculated the median *defensive interval* to be 3.014 meaning that half of the institutions studied could sustain operations for less than 3.014 months, and half could sustain operations more than 3.014 months if there

were no new revenues. This presented a stark contrast to the findings of this study in which the medians (2002, 16.58; 2003, 21.68; 2004, 20.81) were more than five times higher than those found just a decade earlier for the much larger education sector. This indicated that Florida community college foundations held higher positions in current liquid assets plus receivables than the education sector at large.

The *liquid funds indicator* measured the number of months, on average, that expenses could be paid from assets other than restricted endowment, land, or property, plant, and equipment if no additional revenues were recognized. These were assets that could legally and reasonably be spent (McLean & Coffman, 2004). Results of this study indicated that half of the Florida public community college foundations could continue to pay average expenses for more than 31.59 months (2002), 34.41 months (2003) and 45.20 months (2004). Again, there was a significant difference in these results when compared to education sector results found by Greenlee and Bukovinsky (1998) for fiscal year 1993 where the median was just 1.703 months.

The *accounts payable aging indicator* indicated the number of months, on average, that it would take the organization to pay off its debt. The medians found in this study were less than 15 days and were similar to that found by Greenlee and Bukovinsky for the education sector. At least one institution studied in 2003, though, had significant debt that pushed the *accounts payable aging indicator* to a timeframe over 12 months.

Nonprofits in the education sector that were studied by Greenlee and Bukovinsky (1998) spent nearly all of their revenues during the year as indicated by the low *savings indicator* (median = 0.032). The *savings indicator* was a measure of savings which

indicated the organization's willingness to increase net assets or fund balance. The community college foundations studied in 2002 and 2004 had substantially higher median *savings indicators* (2002, 0.39; 2004, 1.53) than that observed by the sector. This could have been due to uncharacteristically high revenues or low expenses, due to receipt of substantial restricted gifts, or by coordinated efforts to increase fund balance.

The *endowment ratio* indicated, on average, the number of months of expenses that could be paid by permanently restricted dollars, and it was a measure of the organization's long-term financial ability to rely on investment income streams rather than uncertain voluntary cash flows. The Florida community college foundations studied had high endowment ratios. Half of the organizations each year had an endowment equivalent to at least five years worth of expenses. Building endowments must not have been a priority for the institutions in education studied by Greenlee and Bukovinsky (1998) because the median observed was only equivalent to five months of expenses.

The *debt ratio* indicated, on average, the proportion of assets that were present due to debt financing. For the overall sector, Greenlee and Bukovinsky (1998) found that 21.5% of the median institution's assets were leveraged in 1993. In 1999, the median had dropped to 18%, but the overall mean was 23% (Trussel, 2006b). Along with their strong asset positions as evidenced by the *defensive interval, liquid funds indicator*, and *endowment ratio*, the Florida community college foundations had smaller debt positions than those seen in the sector. For example, in 2002, half of the foundations had less than 1% debt positions. McLean and Coffman (2004) cautioned that the *debt ratio* could be

distorted by an organization's grants receivable or grants payable as carried on its balance sheet. That analysis was not part of this study.

Measures of Use of Resources to Support Mission

Five ratios were identified as measures of use of resources to support mission: (a) *fundraising efficiency ratio* (ratio of total contributions other than government grants to fundraising expense--total contributions other than government grants divided by fundraising expense), (b) *fundraising expense ratio* (ratio of fundraising expense to total expense--fundraising expense divided by total expense), (c) *management expense ratio* (ratio of management and general expense to total expense--management and general expense divided by total expense), (d) *program service expense ratio* (ratio of program service expense to total expense--program service expense divided by total expense), and (e) *ratio of program service expense to total assets* (program service expense divided by total assets). Descriptive statistics for these ratios have been displayed in Table 16 and discussed in Chapter 4. Key findings are summarized in this section.

The *fundraising efficiency ratio* indicated the number of dollars of contributions, other than government grants, raised for each dollar expended on fundraising expenses. The Florida community college foundations displayed greater efficiency by this measure than did the education sector as a whole. For example, 50% of the foundations studied raised $37.32 or more per $1.00 spent for fundraising in 2003. In contrast, 50% of the nonprofits studied within the education sector in 1993 raised $9.097 or less per $1.00 spent on fundraising (Greenlee & Bukovinsky, 1998).

The *fundraising expense ratio* indicated the proportion of total expenses that were direct fundraising expenses. Results for the education sector indicated that half of the organizations spent 2.4% or less of their total expenses on fundraising (Greenlee & Bukovinsky, 1998). Medians for 2002, 2003, and 2004 for the community college foundations in Florida were even less with medians of 0.01. This ratio was especially at risk of being misreported due to accounting practices (McLean & Coffman, 2004).

The *management expense ratio* indicated the proportion of total expenses that were administrative (not fundraising or program service expenses). Results for the *management expense ratio* were similar and consistent over time. Greenlee and Bukovinsky (1998) found that the median observation within the education sector had 12 cents of each expense dollar allocated for management and general purposes. In his 1999 study of the same sector, Trussel (2006b) found that the median institution devoted 13% of all expenses for administrative purposes. Within the organizations studied as part of this analysis, the highest median calculated was for 2004 at 0.12.

The *program service expense ratio* indicated the proportion of total expenses that were utilized to support the organization's mission through its programs as opposed to its administrative expenses and overhead. Greenlee and Bukovinsky (1998) found the median for this ratio to be 0.866 for the education sector in 1993. Trussel (2006b) found a related calculation (0.83) for the education sector in 1999. The Florida community college foundation medians studied were only slightly higher with a 2002 median of 88%, a 2003 median of 89%, and a 2004 median of 87%. Most results for both Florida community college foundations and university foundations were above 60% which is

what Lammers (2003) deemed favorable. They were also above the 60% threshold targeted by the American Institute of Philanthropy and the National Charities Information Bureau and the 65% threshold targeted by the BBB Wise Giving Alliance (Greenlee & Bukovinsky; Holman, Ihrke, & Grasse, n.d.; Lammers).

Fundraising expense, management expense, and program service expense comprised total expenses. With favorable *program service expense ratios* generally accepted as greater than 60%, the remaining expenses reflected by a combination of the *fundraising expense ratio* and the *management expense ratio* should not exceed 40% (Greenlee & Bukovinsky, 1998; Holman, Ihrke, & Grasse, n.d.; Lammers, 2003). Most of the Florida community college foundations studied as part of this research met that objective.

The *ratio of program service expense to total assets* provided a ratio that allowed program service expense to be compared across institutions of different size as measured by average total assets. As an efficiency ratio, it was a measure of the organization's ability to use its assets to provide programs or services. In general, a higher value indicated greater efficiency.

Greenlee and Bukovinsky (1998) found the median *ratio of program service expense to total assets* for the education sector to be 1.314 which indicted that annual program service expense exceeded total assets by 31.4%. This differed substantially from the results of Trussel's (2006b) 1999 study of the education sector. Trussel (2006b) found a median of 0.24 which indicated that an amount equivalent to 24% of total assets were spent to benefit programs during the year. Results of this study for Florida community

college foundations were lower with a median of 8% for 2002, 9% for 2003, and 10% for 2004. These lower results when considered with high *endowment ratios* indicated that the Florida public community college foundations placed an emphasis on maintaining a strong asset base.

Measures of Investment Performance and Concentration

Four ratios were identified as measures of investment performance and concentration: (a) *ratio of return on securities to total securities* (return on securities divided by total securities), (b) *ratio of net gain or loss on sale of securities to total securities* (net gain or loss on sale of securities divided by total securities), (c) *ratio of cash and savings to total assets* (cash and savings divided by total assets), and (d) *ratio of total securities to total assets* (total securities divided by total assets). Descriptive statistics for these ratios have been displayed in Table 17 and discussed in Chapter 4. Key findings are summarized in this section.

The *ratio of cash and savings to total assets* showed the proportion of total assets that were cash and savings (liquid). Trussel (2006b) analyzed this ratio for the education sector in 1999 and found the mean to be 5% while the median was 6%. This indicated that half of institutions studied held less than 6% of their assets in cash and savings. The Florida community college foundations evaluated as part of this study held higher liquid positions as evidenced by means (2002, 0.22; 2003, 0.24; 2004, 0.21) that were higher than the medians (2002, 0.11; 2003, 0.17; 2004, 0.18). Calculations of this ratio could

have been influenced by timing and spending plans, but since it was consistently higher across years, it appeared to be a standard business practice.

The *ratio of total securities to total assets* showed the proportion of total assets that were invested in securities. Trussel (2006b) found that education institutions, on average, invested 53% of their assets in securities. This was comparable to the findings of this study for Florida community college foundations. On average, the Florida community college foundations invested 46% of their assets in securities in 2002 and 2003 and 52% in 2004. The distribution was great with at least one organization having no invested securities each year as indicated by the minimums to at least one organization that had over 97% of its assets invested in securities each year as indicated by the maximums.

Research Question 2

Does the *contributions and grants ratio* (ratio of total contributions to total revenue) differ, on average, from 2002 to 2004?

The *contributions and grants ratio* measured the proportion of revenues that were derived from voluntary or private sources of support (Greenlee & Bukovinsky, 1998; McLean & Coffman, 2004). Private sources of support included gifts made directly by the public (cash and noncash), indirect support through federated fundraising agencies, and governmental grants for which no direct benefit was provided to the grantor. It was calculated by dividing the revenue from contributions and grants (gifts, grants, and other contributions) by total revenue. It was used as a gauge for the organization's dependence

upon voluntary support which could be less predictable than other revenue sources such as program service revenue, rental income, or investment income (Greenlee & Bukovinsky; McLean & Coffman).

This ratio was also a measure of revenue concentration that was a component of what Trussel (2006b) called the common-size statement of activities. In this common-size statement, "each line item is converted from a monetary unit to a percentage of total revenues" (Trussel, p. 9). This technique removed the influence of organizational size while allowing analysis over time (trends) (Trussel). In addition to absolute standards or relative standards, the literature supported the use of time-based comparisons to identify trends in performance either positively or negatively (Cutt & Murray, 2000; Greenlee & Bukovinsky, 1998; McLean & Coffman, 2004; Waddell, 1995). A comprehensive literature search was conducted, but no prior studies were found that included a time analysis of the *contributions and grants ratio* for community college foundations or any related nonprofit sector.

The literature suggested that the *contributions and grants ratio* was especially relevant in the financial evaluation of a charity and that it was an appropriate measure for a trend analysis (Greenlee & Bukovinsky, 1998; Holman, Ihrke, & Grasse, n.d.; Ritchie & Kolodinsky, 2003; Trussel, 2006b). The purpose of this research question was to determine if there were significant differences in the calculations of the *contributions and grants ratio* over time that could indicate a trend pertaining to Florida community college foundations' reliance upon voluntary support.

A total of 13 cases were filtered prior to analysis due to the ratios exceeding 1.0, leaving a final sample size of 15. This ratio was intended to calculate the proportion of total revenues that could be accounted for by contributions and grants. In some cases, the total of contributions and grants exceeded total revenues. This could be due to different accounting practices or due to net investment losses. In either case, a ratio exceeding 1.0 did not provide the researcher with any gauge on the organization's dependence on public versus private support. Had these values been included, they would have biased the results.

Research Question 2 was analyzed by performing a repeated measures analysis of variance (one within subjects design) for the *contributions and grants ratio*, the dependent variable, to determine if the outcomes differed, on average, across time from 2002 to 2004. For 2002, the average *contributions and grants ratio* was 0.71. The average was 0.73 in 2003, and 0.71 in 2004. The ANOVA indicated no statistically significant time effect. The results of this analysis suggested that there was no mean difference in the *contributions and grants ratio* over time during the 3-year period from 2002 to 2004.

The fact that no mean difference was found indicated that the organizations were consistent in their reliance upon public, voluntary support during that time period. It can be inferred that there were no significant changes in funding patterns and that the percentage of revenues attributable to program fees and investment performance was stable.

The *contributions and grants ratio* calculated for community college foundations over time were higher than that calculated for the education sector by Trussel (2006b) or Greenlee and Bukovinsky (1998). This was expected because the foundations were created for the specific purpose of fundraising rather than providing a service for which program service fees could be generated.

If a trend had been observed where the *contributions and grants ratio* increased over time, it could have been an indicator that stability of the organizations could be questioned due to the unpredictable nature of voluntary contributions (Greenlee & Bukovinsky, 1998). If a trend of decline was observed, it could have been an indicator that the organizations were changing their missions or had expanded or condensed the services or programs offered or fundraising methods employed.

Research Question 3

Does the *fundraising expense ratio* (ratio of fundraising expenses to total expenses) differ, on average, from 2002 to 2004?

The *fundraising expense ratio* measured the proportion of total expenses that were spent on fundraising to generate voluntary or private contributions (Greenlee & Bukovinsky, 1998; McLean & Coffman, 2004). It was calculated by dividing fundraising expenses by total expenses. The *fundraising expense ratio* has been categorized as a measure of use of resources to support the mission and in general, a lower ratio is preferable (Greenlee & Bukovinsky).

As one of the functional expenses, fundraising expense, program services expense, and management and general expense (administrative expense) comprise 100% of total expenses. Therefore, if generally accepted standards indicated that at least 60% of expenses should be directed to programs, it can be inferred that no more than 40% of expenses should be directed to fundraising and administrative expenses combined (Greenlee & Bukovinsky, 1998; Lammers, 2003; McLean & Coffman, 2004).

GuideStar has cautioned that this ratio may not be useful for comparative purposes due to differing accounting and fundraising methods employed by the respective entities (McLean & Coffman, 2004). However, the GuideStar analyst report (n.d.) stated that a strong use of this ratio was to measure trends over time. The literature supported the use of time-based comparisons to identify trends in performance either positively or negatively (Cutt & Murray, 2000; Greenlee & Bukovinsky, 1998; McLean & Coffman; Waddell, 1995). A comprehensive literature search was conducted, but no prior studies were found that included a time analysis of the *fundraising expense ratio* for community college foundations or any related nonprofit sector.

The purpose of this research question was to determine if there were significant differences in the calculations of the *fundraising expense ratio* over time that could indicate a trend pertaining to the amount of money allocated to fundraising expense as opposed to other functional expenses (program services expense or management and general expense). Research Question 3 was analyzed by performing a repeated measures analysis of variance for the *fundraising expense ratio*, the dependent variable, to determine if the outcomes differed, on average, across time from 2002 to 2004. The mean

fundraising expense ratio each year for 2002 and 2003 was 0.03. The mean for 2004 was 0.02. The ANOVA indicated no statistically significant time effect. The results of this analysis suggested that there was no mean difference in the *fundraising expense ratio* over time during the 3-year period from 2002 to 2004.

The fact that no mean difference was found indicated that the organizations were consistent in their spending for fundraising during the 3-year period. It can be inferred that there were no significant changes in spending patterns and that the percentage of expenses attributable to non-fundraising expenses (programs or management and general expense) was stable.

Had there been a trend whereby the *fundraising expense ratio* increased, it could have been a sign that the organizations were competing for many smaller contributions rather than focusing efforts on a few large donations (McLean & Coffman, 2004). Lammers (2003) noted that a low *fundraising expense ratio* was a positive indicator to some rating organizations, so if the ratios were declining, the organization's overall rating could increase. However, this ratio was particularly susceptible to accounting manipulation and could easily have been underreported (McLean & Coffman; Trussel, 2006b).

Research Question 4

Does the *program service expense ratio* (ratio of program service expenses to total expenses) differ, on average, from 2002 to 2004?

The *program service expense ratio* was referenced frequently within the literature as a measure of the proper use of funds (Greenlee & Bukovinsky, 1998; Holman, Ihrke, & Grasse, n.d.; McLean & Coffman, 2004; Trussel, 2006b). This ratio measured the proportion of total expenses spent on programs and services of the organization--in essence, its mission as opposed to its administrative expenses or fundraising expenses (Criteria, n.d.; Greenlee & Bukovinsky; McLean & Coffman). It was calculated by dividing the program service expenses by total expenses.

Lammers (2003) stated that a favorable *program service expense ratio* generally fell between 60% and 70% of total expenses, but the ratio could be lower if the charity operated in an area with a high cost of living (McLean & Coffman, 2004). This was an important ratio because some charity monitoring services required a ratio of at least 60% in order to receive a positive rating (Greenlee & Bukovinsky, 1998). As a long-term goal, organizations should strive to raise their *program service expense ratios* and dedicate more resources toward fulfillment of their missions (McLean & Coffman). Utilizing time-based comparisons to identify trends in cases of potential variability such as these was supported by the literature (Cutt & Murray, 2000; Greenlee & Bukovinsky; McLean & Coffman; Waddell, 1995). In conducting a comprehensive literature search, however, no prior studies were found that included a time analysis of the *program service expense ratio* for community college foundations or any related nonprofit sector.

The purpose of this research question was to determine if there were significant differences in the calculations of the *program service expense ratio* over time that could indicate a trend pertaining to the amount of money allocated to program services expense

in support of the organization's mission. Research Question 4 was analyzed by performing a repeated measures analysis of variance for the *program service expense ratio*, the dependent variable, to determine if the outcomes differed, on average, across time from 2002 to 2004. In conducting this study, a mean *program service expense ratio* of 0.87 in 2002 and 0.85 for both 2003 and 2004 was found. The ANOVA indicated no statistically significant time effect. The results of this analysis suggested that there was no mean difference in the *program service expense ratio* over time during the 3-year period from 2002 to 2004.

The fact that no mean difference was found indicated that the organizations were consistent in their spending on programs during that time period. It can be inferred that there were no significant changes in spending patterns and that the percentage of expenses attributable to non-program expenses (fundraising expense and administrative expense) was stable.

If there had been a trend whereby the *program service expense ratio* increased to a very high level, it would have been an indicator for the stakeholders to monitor debt-paying ability and potentially negative operating margins (Trussel, 2006b). Had there been a trend of decline, it would have been an indicator for stakeholders to evaluate the organization to ensure that program needs were continuing to be met.

Recommendations for Future Research

The purpose of this study was to analyze financial performance measurement ratios for Florida's 28 public community college foundations. As such, benchmark

statistics were calculated and presented for each of 27 ratios over a 3-year period from 2002 to 2004. In addition, three ratios *(contributions and grants ratio*, the *fundraising expense ratio*, and the *program service expense ratio)* were analyzed over time to determine if their outcomes, on average, differed. The findings suggested that they did not differ during the timeframe from 2002 to 2004.

Recommendations for future research include:

1. Analyze the ratios over a longer period of time to look for differences or trends.
2. Group the community college foundations by size (based on college student population, population of service area, or net worth) to determine if the outcomes of the ratios vary.
3. Group the community college foundations by highest level of degree awarded (baccalaureate or associate) to determine if the outcomes of the ratios vary.
4. Perform benchmark comparisons for similar institutions on a national level or for different types of educational institutions (e.g. the Florida state university system).
5. Study the performance measurement ratios to evaluate if there are patterns in the relationships between them (as variables).

Pursuit of these recommendations would contribute to the field of professional fundraising by expanding upon comparative data, trend analysis and meaning of ratios to assist nonprofit stakeholders strategically plan for the future of their institutions.

APPENDIX A
FINANCIAL PERFORMANCE MEASUREMENT RATIOS AND PRELIMINARY CATEGORIES

FINANCIAL PERFORMANCE MEASUREMENT RATIOS AND PRELIMINARY CATEGORIES WITH IRS FORM 990 CALCULATIONS AS DERIVED BY RITCHIE & KOLODINSKY (2003)

Fiscal Performance

Ratio of total revenue available for programs to total revenue
((line 12 – [line 14 + line 15 + line 16]) ÷ line 12)
Ratio of total revenue to total assets
(line 12 ÷ line 59 (B))
Ratio of total revenue to total expenses (Siciliano, 1996, 1997)
(line 12 ÷ line 17)
Ratio of total revenue minus total expenses to total revenue
((line 12 – line 17) ÷ line 12)
Ratio of total revenue minus total expenses to total assets (ROA)
((line 12 – line 17) ÷ line 59 (B))
Ratio of net assets (fund balances) to total assets
(line 73 (B) ÷ line 59 (B))

Fundraising Efficiency

Ratio of direct public support to fundraising expenses (Greenlee, 1998)
(line 1 a ÷ line 15)
Ratio of total revenue to fundraising expenses
(line 12 ÷ line 15)

Public Support

Ratio of total contributions (gifts, grants, and other contributions) to total expenses
(line 1 d ÷ line 17)
Ratio of total contributions (gifts, grants, and other contributions) to total assets
(line 1 d ÷ line 59 (B))
Ratio of total contributions (gifts, grants, and other contributions) to total revenue ("Index of public support," Siciliano, 1996; Greenlee, 1998)
(line 1 d ÷ line 12)
Ratio of direct public support to total assets
(line 1 a ÷ line 59 (B))

Investment Performance and Concentration

Ratio of return on securities to total securities
(line 5 ÷ line 54 (B))
Ratio of net gain or loss on sale of securities to total securities
(line 8 c (A) ÷ line 54 (B))
Ratio of cash and savings to total assets
((line 45 (B) + line 46 (B)) ÷ line 59 (B))
Ratio of total securities to total assets
(line 54 (B) ÷ line 59 (B))

APPENDIX B
PERFORMANCE MEASUREMENT RATIOS BY PURPOSE

PERFORMANCE MEASUREMENT RATIOS BY PURPOSE
WITH IRS FORM 990 CALCULATIONS AS DERIVED BY GREENLEE AND BUKOVINSKY (1998)

Adequacy of Resources to Support Mission

Defensive interval: Ratio of cash plus marketable securities plus receivables to average monthly expenses

(((line 45 (B) + line 46 (B) + line 47 c (B) + line 48 c (B) + line 49 + line 50 + line 51 c (B)) ÷ ((line 17 ÷ 12)))

Liquid funds indicator: Ratio of Fund balance minus restricted endowment minus land minus property, plant, and equipment to average monthly expenses

(((line 73 (B) – line 69 (B) – line 57 c (B)) ÷ (line 17 ÷ 12))

Accounts payable aging indicator: Ratio of accounts payable to average monthly expenses

((line 60 (B) + line 61 (B)) ÷ (line 17 ÷ 12))

Savings indicator: Ratio of revenues minus expenses to total expenses

((line 12 – line 17) ÷ line 17

Contributions and grants ratio: Ratio of revenue from contributions and grants to total revenue

(line 1 d ÷ line 12)

Endowment ratio: Ratio of endowment to average monthly expenses

((line 69 (B)) ÷ (line 17 ÷ 12))

Debt ratio: Ratio of average total debt to average total assets

((line 66 (A) + line 66 (B) ÷2) ÷ ((line 59 (A) + line 59 (B)) ÷ 2))

Use of Resources to Support Mission

Fundraising efficiency: Ratio of total contributions other than government grants to fundraising expense

((line 1 d – line 1 c) ÷ line 15)

Fundraising expense: Ratio of fundraising expense to total expense

(line 15 ÷ line 17)

Management expense: Ratio of management and general expense to total expense

(line 14 ÷ line 17)

Program service expense: Ratio of program service expense to total expense

(line 13 ÷ line 17)

Ratio of program service expense to average total assets

((line 13 ÷ ((line 59 (A) + line 59 (B)) ÷ 2))

APPENDIX C
PERFORMANCE MEASUREMENT RATIOS WITH IRS FORM 990 CALCULATIONS

PERFORMANCE MEASUREMENT RATIOS WITH IRS FORM 990
CALCULATIONS AS DERIVED BY MCLEAN AND COFFMAN (2004)

Accounts payable aging indicator: Ratio of accounts payable multiplied by 12 to total expenses

((line 60 (B) * 12) ÷ line 17)

Contributions and grants ratio: Ratio of contributions plus grants to total revenue

(line 1 d ÷ line 12)

Debt ratio: Ratio of total liabilities to total assets

(line 66 (B) ÷ (line 59 (B))

Fundraising ratio: Ratio of fundraising expenses to total expenses

(line 15 ÷ line 17)

Liquid funds indicator: Ratio of (fund balances minus permanently restricted minus land, buildings, and equipment) multiplied by 12 to total expenses

((line 73 (B) – line 69 (B) – line 57 c (B)* 12) ÷ line 17)

Program ratio: Ratio of program service expenses to total expenses

(line 13 ÷ line 17)

Savings ratio: Ratio of total revenue minus total expenses to total expenses

((line 12 – line 17) ÷ line 17

APPENDIX D
PERFORMANCE MEASUREMENT RATIOS USED IN DATA ANALYSIS

PERFORMANCE MEASUREMENT RATIOS USED FOR THIS ANALYSIS, SPSS INPUT NUMBERS, AND CALCULATIONS

	2004	2003	2002
Contributions and grants ratio: Ratio of revenue from contributions and grants to total revenue	**85** (cell 7/cell 16)	**86** (cell 8/cell 17)	**87** (cell 9/cell 18)
Fundraising expense ratio: Ratio of fundraising expenses to total expenses	**88** (cell 25/cell 31)	**89** (cell 26/cell 32)	**90** (cell 27/cell 33)
Program service expense ratio: Ratio of program services expenses to total expenses	**91** (cell 19/cell 31)	**92** (cell 20/cell 32)	**93** (cell 21/cell 33)
Ratio of total revenue available for programs to total revenue	**94** ((cell 16-[cell 22+cell 25+cell 28])/cell 16)	**95** ((cell 17-[cell 23+cell 26+cell 29])/cell 17)	**96** ((cell 18-[cell 24+cell 27+cell 30])/cell 18)
Ratio of total revenue to total assets	**97** (cell 16/cell 64)	**98** (cell 17/cell 65)	**99** (cell 18/cell 66)
Ratio of total revenue to fundraising expenses	**100** (cell 16/cell 25)	**101** (cell 17/cell 26)	**102** (cell 18/cell 27)
Ratio of total revenue to total expenses	**103** (cell 16/cell 31)	**104** (cell 17/cell 32)	**105** (cell 18/cell 33)
Ratio of total revenue minus total expenses to total revenue	**106** ((cell 16-cell 31)/cell 16)	**107** ((cell 17-cell 32)/cell 17)	**108** ((cell 18-cell 33)/cell 18)
Ratio of total revenue minus total expenses to total assets (ROA)	**109** ((cell 16-cell 31)/cell 64)	**110** ((cell 17-cell 32)/cell 65)	**111** ((cell 18-cell 33)/cell 66)
Savings indicator: Ratio of total revenue minus total expenses to total expenses	**112** ((cell 16-cell 31)/cell 31)	**113** ((cell 17-cell 32)/cell 32)	**114** ((cell 18-cell 33)/cell 33)
Ratio of total contributions (gifts, grants, and other contributions) to total expenses	**115** (cell 7/cell 31)	**116** (cell 8/cell 32)	**117** (cell 9/cell 33)
Ratio of total contributions (gifts, grants, and other contributions) to total assets	**118** (cell 7/cell 64)	**119** (cell 8/cell 65)	**120** (cell 9/cell 66)
Fundraising efficiency ratio: Ratio of total contributions other than government grants to fundraising expense	**121** ((cell 7-cell 4)/cell 25)	**122** ((cell 8-cell 5)/cell 26)	**123** ((cell 9-cell 6)/cell 27)

Ratio of direct public support to total assets	**124** (cell 1/cell 64)	**125** (cell 2/cell 65)	**126** (cell 3/cell 66)
Ratio of direct public support to fundraising expenses	**127** (cell 1/cell 25)	**128** (cell 2/cell 26)	**129** (cell 3/cell 27)
Ratio of program service expense to average total assets	**130** (cell 19/((cell 61+cell 64)/2))	**131** (cell 20/((cell 62+cell 65)/2))	**132** (cell 21/((cell 63+cell 66)/2))
Management expense ratio: Ratio of management and general expense to total expense	**133** (cell 22/cell 31)	**134** (cell 23/cell 32)	**135** (cell 24/cell 33)
Ratio of net assets (fund balances) to total assets	**136** (cell 82/cell 64)	**137** (cell 83/cell 65)	**138** (cell 84/cell 66)
Ratio of cash and savings to total assets	**139** ((cell 34+cell 37)/cell 64)	**140** ((cell 35+cell 38)/cell 65)	**141** ((cell 36+cell 39)/cell 66)
Ratio of total securities to total assets	**142** (cell 55/cell 64)	**143** (cell 56/cell 65)	**144** (cell 57/cell 66)
Ratio of return on securities to total securities	**145** (cell 10/cell 55)	**146** (cell 11/cell 56)	**147** (cell 12/cell 57)
Ratio of net gain or loss on sale of securities to total securities	**148** (cell 13/cell 55)	**149** (cell 14/cell 56)	**150** (cell 15/cell 57)
Defensive interval: Ratio of cash plus marketable securities plus receivables to average monthly expenses	**151** ((cell 34+cell 37+cell 40+cell 43+cell 46+cell 49+cell 52)/(cell 31/12))	**152** ((cell 35+cell 38+cell 41+cell 44+cell 47+cell 50+cell 53)/(cell 32/12))	**153** ((cell 36+cell 39+cell 42+cell 45+cell 48+cell 51+cell 54)/(cell 33/12))
Liquid funds indicator: Ratio of fund balance minus restricted endowment minus land minus property, plant, and equipment to average monthly expenses	**154** ((cell 82-cell 79-cell 58)/(cell 31/12))	**155** ((cell 83-cell 80-cell 59)/(cell 32/12))	**156** ((cell 84-cell 81-cell 60)/(cell 33/12))
Accounts payable aging indicator: Ratio of accounts payable to average monthly expenses	**157** ((cell 67+cell 70)/(cell 31/12))	**158** ((cell 68+cell 71)/(cell 32/12))	**159** ((cell 69+cell 72)/(cell 33/12))

	160	**161**	**162**
Endowment ratio: Ratio of endowment to average monthly expenses	((cell 79/(cell 31/12))	((cell 80/(cell 32/12))	((cell 81/(cell 33/12))
	163	**164**	**165**
Debt ratio: Ratio of average total debt to average total assets	(((cell 73+cell 76)/2)/((cell 61+cell 64)/2))	(((cell 74+cell 77)/2)/((cell 62+cell 65)/2))	(((cell 75+cell 78)/2)/((cell 63+cell 66)/2))

APPENDIX E
PERFORMANCE MEASUREMENT RATIOS BY CATEGORY OF ANALYSIS

PERFORMANCE MEASUREMENT RATIOS BY CATEGORY OF ANALYSIS
AS DERIVED BY TRUSSEL (2006B)

Liquidity
Ratio of cash to payables
Ratio of cash to assets
Days inventory on hand: Ratio of 365 to inventory turnover
Accounts receivable collection period: Ratio of 365 to accounts receivable turnover
Accounts payable payment period: Ratio of 365 to accounts payable turnover
Pledges receivable collection period: Ratio of 365 to pledges receivable turnover
Grants receivable collection period: Ratio of 365 to grants receivable turnover

Activity
Inventory turnover: Ratio of cost of goods sold to average inventory
Accounts receivable turnover: Ratio of inventory sales plus program revenue plus membership dues to average accounts receivable
Accounts payable turnover: Ratio of total expenses minus depreciation to average accounts payable
Pledges receivable turnover: Ratio of durect public support to average pledges receivable
Grants receivable turnover: Ratio of government grants to average grants receivable
Asset turnover: Ratio of total revenues minus cost of goods sold to average total assets

Return on Capital
Ratio of program expense to assets
Ratio of program expense to net assets
Ratio of surplus to assets
Ratio of surplus to net assets

Adequacy of Resources
Revenue growth: Ratio of revenues for year studied minus previous year's revenues to previous year's revenues
Ratio of surplus to revenues
Ratio of net assets to revenues
Revenue concentration index: "Sum of the squared ratio of each revenue source to total revenues" (p. 22)

Use of Resources
Ratio of program expense to total expenses
Ratio of program expense to total revenues
Ratio of administrative expense tot total expense
Fundraising efficiency: Ratio of fundraising expenses to direct public support

Leverage/Solvency
Ratio of debt to assets
Ratio of debt to net assets
Ratio of total assets to net assets

Composite Measures
Financial risk index: "A composite measure of the probability of financial problems" (p. 27)
Manipulation index: "A composite measure of the probability of manipulating program expenses" (p. 28)

APPENDIX F
FLORIDA COMMUNITY COLLEGE FOUNDATIONS AND SERVICE AREAS

FLORIDA COMMUNITY COLLEGE FOUNDATIONS AND SERVICE AREAS

Name of Organization	**Community College Service Area (County/Counties)**
Brevard Community College Foundation	Brevard
Broward College Foundation (previously known as Broward Community College Foundation)	Broward
Central Florida Community College Foundation	Citrus, Levy, Marion
Chipola College Foundation (previously known as Chipola Junior College Foundation)	Calhoun, Holmes, Jackson, Liberty, Washington
Daytona State College Foundation (previously known as Daytona Beach Community College Foundation)	Flagler, Volusia
Edison College Foundation (previously known as Edison Community College Foundation)	Charlotte, Collier, Glades, Hendry, Lee
Florida Community College at Jacksonville Foundation	Duval, Nassau
Florida Keys Community College Foundation (also known as Florida Keys Educational Foundation)	Monroe
Gulf Coast Community College Foundation	Bay, Franklin, Gulf
Hillsborough Community College Foundation	Hillsborough
Indian River State College Foundation (previously known as Indian River Community College Foundation)	Indian River, Martin, Okeechobee, St. Lucie
Lake City Community College Foundation	Baker, Columbia, Dixie, Gilchrist, Union
Lake-Sumter Community College Foundation	Lake, Sumter
Manatee Community College Foundation (also known as The Foundation for Manatee Community College)	Manatee, Sarasota
Miami Dade College Foundation (previously known as Miami-Dade Community College Foundation)	Dade
North Florida Community College Foundation	Jefferson, Hamilton, Lafayette, Madison, Suwannee, Taylor
Okaloosa-Walton College (OWC) Foundation (previously known as Okaloosa-Walton Community College (OWCC) Foundation)	Okaloosa, Walton
Palm Beach Community College Foundation	Palm Beach
Pasco-Hernando Community College Foundation	Hernando, Pasco
Pensacola Junior College Foundation	Escambia, Santa Rosa
Polk Community College Foundation	Polk

St. Johns River Community College Foundation	Clay, Putnam, St. Johns
St. Petersburg College Foundation	Pinellas
Santa Fe College Foundation (also known as Santa Fe Community College Foundation or Santa Fe Community College Endowment Corporation)	Alachua, Bradford
Seminole Community College Foundation	Seminole
South Florida Community College Foundation	DeSoto, Hardee, Highlands
Tallahassee Community College Foundation	Gadsden, Leon, Wakulla
Valencia Community College Foundation	Orange, Osceola

APPENDIX G
INSTITUTIONAL REVIEW BOARD APPROVAL

Not Human Subjects Research

To: Karen Sanders and Co-PIs: William Bozeman and Debbie Hahs-Vaughn
Date: June 19, 2008
IRB Number: SBE-08-05707
Study Title: An Analysis of Florida Public Community College Foundation Performance Measures from 2002-2004

Dear Researcher:

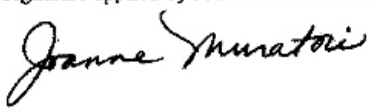
After reviewing the materials that you have submitted, the UCF Institutional Review Board has determined that your project, "An Analysis of Florida Public Community College Foundation Performance Measures from 2002-2004," does not fit the definition of human subjects research because your project will include analysis of publicly available data.

Therefore, IRB review is not needed.

Thank you for your time in resolving this issue. Please continue to submit applications that involve human subject activities that could potentially involve human subjects as research participants.

On behalf of Tracy Dietz, Ph.D., UCF IRB Chair, this letter is signed by:

Signature applied by Joanne Muratori on 06/19/2008 01:13:25 PM EDT



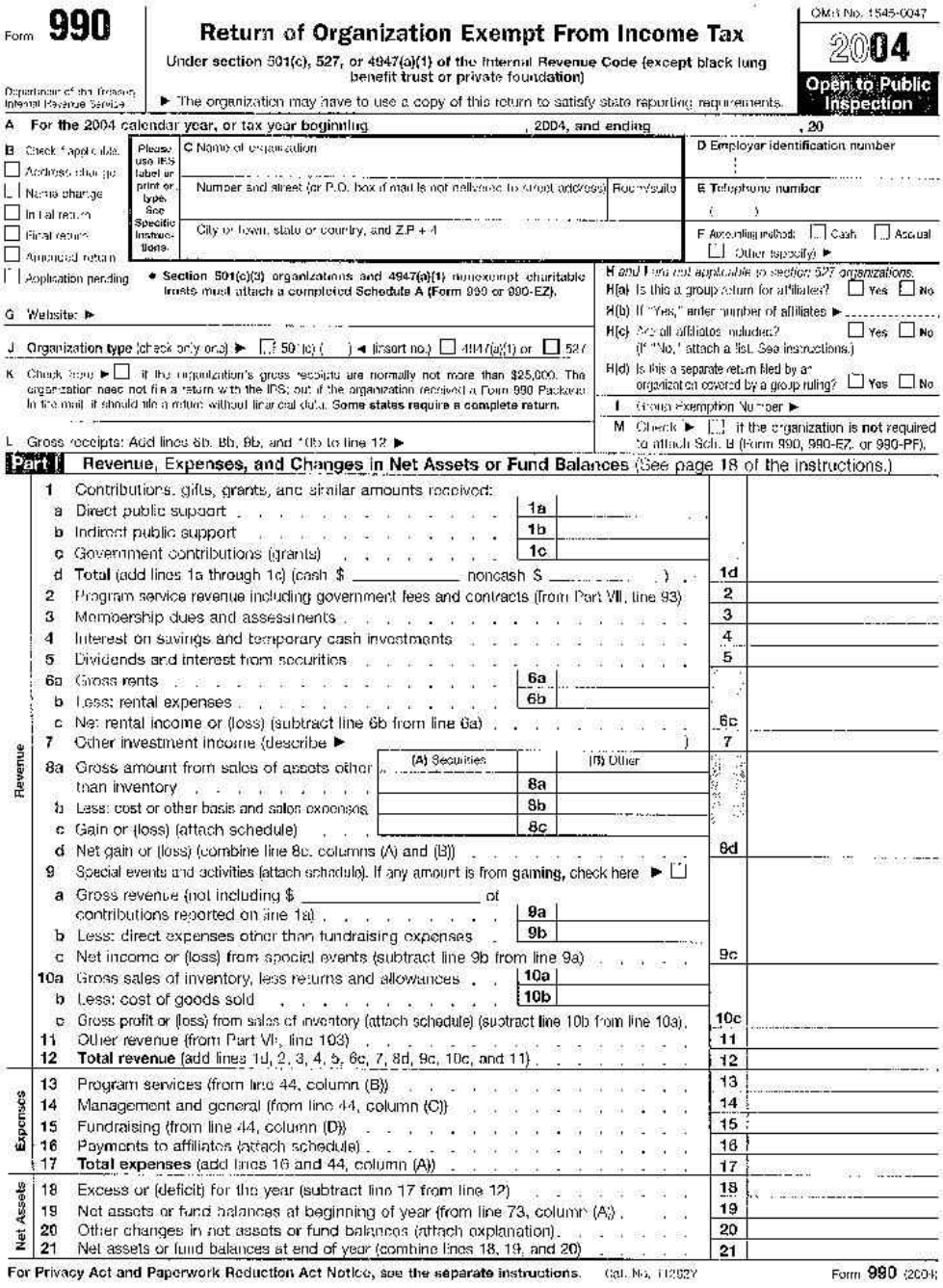
APPENDIX H
DATA COLLECTION WORKSHEET AND SPSS INPUT NUMBERS

DATA COLLECTION WORKSHEET AND SPSS INPUT NUMBERS

		2004	2003	2002
Form 990				
Line 1 a	Revenue: Contributions, gifts, grants, and similar amounts received: Direct public support	**1**	**2**	**3**
Line 1 c	Revenue: Government contributions (grants)	**4**	**5**	**6**
Line 1 d	Revenue: Contributions, gifts, grants, and similar amounts received: Total	**7**	**8**	**9**
Line 5	Revenue: Dividends and interest from securities	**10**	**11**	**12**
Line 8 c (A)	Revenue: Gain or (loss): Securities	**13**	**14**	**15**
Line 12	Revenue: Total revenue	**16**	**17**	**18**
Line 13	Expenses: Program services	**19**	**20**	**21**
Line 14	Expenses: Management and general	**22**	**23**	**24**
Line 15	Expenses: Fundraising	**25**	**26**	**27**
Line 16	Expenses: Payments to affiliates	**28**	**29**	**30**
Line 17	Expenses: Total expenses	**31**	**32**	**33**
Line 45 (B)	Assets: Cash - non-interest-bearing	**34**	**35**	**36**
Line 46 (B)	Assets: Savings and temporary cash investments: End of year	**37**	**38**	**39**
Line 47 c (B)	Assets: Accounts receivable: End of year	**40**	**41**	**42**
Line 48 c (B)	Assets: Pledges receivable: End of year	**43**	**44**	**45**
Line 49 (B)	Assets: Grants receivable: End of year	**46**	**47**	**48**
Line 50 (B)	Assets: Receivables from officers, directors, trustees, and key employees	**49**	**50**	**51**
Line 51 c (B)	Assets: Other notes and loans receivable: End of year	**52**	**53**	**54**
Line 54 (B)	Assets: Investments - securities: End of year	**55**	**56**	**57**
Line 57 c (B)	Assets: Land, buildings, and equipment: End of year	**58**	**59**	**60**
Line 59 (A)	Assets: Total assets: Beginning of year	**61**	**62**	**63**
Line 59 (B)	Assets: Total assets: End of year	**64**	**65**	**66**
Line 60 (B)	Liabilities: Accounts payable and accrued expenses: End of year	**67**	**68**	**69**
Line 61 (B)	Liabilities: Grants payable: End of year	**70**	**71**	**72**
Line 66 (A)	Liabilities: Total liabilities: Beginning of year	**73**	**74**	**75**
Line 66 (B)	Liabilities: Total liabilities: End of year	**76**	**77**	**78**
Line 69 (B)	Net assets or fund balances: Permanently restricted: End of year	**79**	**80**	**81**
Line 73 (B)	Net assets or fund balances: Total net assets or fund balances: End of year	**82**	**83**	**84**

APPENDIX I
INTERNAL REVENUE SERVICE FORM 990 FOR YEAR 2004

INTERNAL REVENUE SERVICE FORM



Form **990**

Department of the Treasury
Internal Revenue Service

Return of Organization Exempt From Income Tax

Under section 501(c), 527, or 4947(a)(1) of the Internal Revenue Code (except black lung benefit trust or private foundation)

▶ The organization may have to use a copy of this return to satisfy state reporting requirements.

OMB No. 1545-0047

2004

Open to Public Inspection

A For the 2004 calendar year, or tax year beginning , 2004, and ending , 20

B Check if applicable:
- ☐ Address change
- ☐ Name change
- ☐ Initial return
- ☐ Final return
- ☐ Amended return
- ☐ Application pending

Please use IRS label or print or type. See Specific Instructions.

C Name of organization

Number and street (or P.O. box if mail is not delivered to street address) Room/suite

City or town, state or country, and ZIP + 4

D Employer identification number

E Telephone number ( )

F Accounting method: ☐ Cash ☐ Accrual ☐ Other (specify) ▶

● Section 501(c)(3) organizations and 4947(a)(1) nonexempt charitable trusts must attach a completed Schedule A (Form 990 or 990-EZ).

G Website: ▶

H and I are not applicable to section 527 organizations.

H(a) Is this a group return for affiliates? ☐ Yes ☐ No

H(b) If "Yes," enter number of affiliates ▶

H(c) Are all affiliates included? ☐ Yes ☐ No
(If "No," attach a list. See instructions.)

H(d) Is this a separate return filed by an organization covered by a group ruling? ☐ Yes ☐ No

J Organization type (check only one) ▶ ☐ 501(c) ( ) ◀ (insert no.) ☐ 4947(a)(1) or ☐ 527

I Group Exemption Number ▶

K Check here ▶ ☐ if the organization's gross receipts are normally not more than $25,000. The organization need not file a return with the IRS; but if the organization received a Form 990 Package in the mail, it should file a return without financial data. **Some states require a complete return.**

M Check ▶ ☐ if the organization is **not** required to attach Sch. B (Form 990, 990-EZ, or 990-PF).

L Gross receipts: Add lines 5b, 6b, 9b, and 10b to line 12 ▶

Part I **Revenue, Expenses, and Changes in Net Assets or Fund Balances** (See page 18 of the instructions.)

Revenue	1	Contributions, gifts, grants, and similar amounts received:			
	a	Direct public support	1a		
	b	Indirect public support	1b		
	c	Government contributions (grants)	1c		
	d	**Total** (add lines 1a through 1c) (cash $ noncash $)			1d
	2	Program service revenue including government fees and contracts (from Part VII, line 93)			2
	3	Membership dues and assessments			3
	4	Interest on savings and temporary cash investments			4
	5	Dividends and interest from securities			5
	6a	Gross rents	6a		
	b	Less: rental expenses	6b		
	c	Net rental income or (loss) (subtract line 6b from line 6a)			6c
	7	Other investment income (describe ▶)			7
	8a	Gross amount from sales of assets other than inventory — (A) Securities / (B) Other	8a		
	b	Less: cost or other basis and sales expenses	8b		
	c	Gain or (loss) (attach schedule)	8c		
	d	Net gain or (loss) (combine line 8c, columns (A) and (B))			8d
	9	Special events and activities (attach schedule). If any amount is from gaming, check here ▶ ☐			
	a	Gross revenue (not including $ of contributions reported on line 1a)	9a		
	b	Less: direct expenses other than fundraising expenses	9b		
	c	Net income or (loss) from special events (subtract line 9b from line 9a)			9c
	10a	Gross sales of inventory, less returns and allowances	10a		
	b	Less: cost of goods sold	10b		
	c	Gross profit or (loss) from sales of inventory (attach schedule) (subtract line 10b from line 10a)			10c
	11	Other revenue (from Part VI, line 103)			11
	12	**Total revenue** (add lines 1d, 2, 3, 4, 5, 6c, 7, 8d, 9c, 10c, and 11)			12
Expenses	13	Program services (from line 44, column (B))			13
	14	Management and general (from line 44, column (C))			14
	15	Fundraising (from line 44, column (D))			15
	16	Payments to affiliates (attach schedule)			16
	17	**Total expenses** (add lines 16 and 44, column (A))			17
Net Assets	18	Excess or (deficit) for the year (subtract line 17 from line 12)			18
	19	Net assets or fund balances at beginning of year (from line 73, column (A))			19
	20	Other changes in net assets or fund balances (attach explanation)			20
	21	Net assets or fund balances at end of year (combine lines 18, 19, and 20)			21

For Privacy Act and Paperwork Reduction Act Notice, see the separate instructions. Cat. No. 11282Y Form **990** (2004)

Part II Statement of Functional Expenses All organizations must complete column (A). Columns (B), (C), and (D) are required for section 501(c)(3) and (4) organizations and section 4947(a)(1) nonexempt charitable trusts but optional for others. (See page 22 of the instructions.)

Do not include amounts reported on line 6b, 8b, 9b, 10b, or 16 of Part I.		(A) Total	(B) Program services	(C) Management and general	(D) Fundraising
22 Grants and allocations (attach schedule) (cash $ _____ noncash $ _____)	22				
23 Specific assistance to individuals (attach schedule)	23				
24 Benefits paid to or for members (attach schedule)	24				
25 Compensation of officers, directors, etc.	25				
26 Other salaries and wages	26				
27 Pension plan contributions	27				
28 Other employee benefits	28				
29 Payroll taxes	29				
30 Professional fundraising fees	30				
31 Accounting fees	31				
32 Legal fees	32				
33 Supplies	33				
34 Telephone	34				
35 Postage and shipping	35				
36 Occupancy	36				
37 Equipment rental and maintenance	37				
38 Printing and publications	38				
39 Travel	39				
40 Conferences, conventions, and meetings	40				
41 Interest	41				
42 Depreciation, depletion, etc. (attach schedule)	42				
43 Other expenses not covered above (itemize): a	43a				
b	43b				
c	43c				
d	43d				
e	43e				
44 Total functional expenses (add lines 22 through 43). *Organizations completing columns (B)-(D), carry these totals to lines 13–15*	44				

Joint Costs. Check ▶ ☐ if you are following SOP 98-2.

Are any joint costs from a combined educational campaign and fundraising solicitation reported in (B) Program services? ▶ ☐ Yes ☐ No

If "Yes," enter (i) the aggregate amount of these joint costs $ _____; (ii) the amount allocated to Program services $ _____;

(iii) the amount allocated to Management and general $ _____; and (iv) the amount allocated to Fundraising $ _____

Part III Statement of Program Service Accomplishments (See page 25 of the instructions.)

What is the organization's primary exempt purpose? ▶	Program Service Expenses (Required for 501(c)(3) and (4) orgs., and 4947(a)(1) trusts; but optional for others.)
All organizations must describe their exempt purpose achievements in a clear and concise manner. State the number of clients served, publications issued, etc. Discuss achievements that are not measurable. (Section 501(c)(3) and (4) organizations and 4947(a)(1) nonexempt charitable trusts must also enter the amount of grants and allocations to others.)	
a _____ (Grants and allocations $ _____)	
b _____ (Grants and allocations $ _____)	
c _____ (Grants and allocations $ _____)	
d _____ (Grants and allocations $ _____)	
e Other program services (attach schedule) (Grants and allocations $ _____)	
f Total of Program Service Expenses (should equal line 44, column (B), Program services). ▶	

Part IV **Balance Sheets** (See page 25 of the instructions.)

	Note: *Where required, attached schedules and amounts within the description column should be for end-of-year amounts only.*		(A) Beginning of year		(B) End of year
Assets	45 Cash—non-interest-bearing			45	
	46 Savings and temporary cash investments			46	
	47a Accounts receivable	47a			
	b Less: allowance for doubtful accounts	47b		47c	
	48a Pledges receivable	48a			
	b Less: allowance for doubtful accounts	48b		48c	
	49 Grants receivable			49	
	50 Receivables from officers, directors, trustees, and key employees (attach schedule)			50	
	51a Other notes and loans receivable (attach schedule)	51a			
	b Less: allowance for doubtful accounts	51b		51c	
	52 Inventories for sale or use			52	
	53 Prepaid expenses and deferred charges			53	
	54 Investments—securities (attach schedule) ▶ ☐ Cost ☐ FMV			54	
	55a Investments—land, buildings, and equipment: basis	55a			
	b Less: accumulated depreciation (attach schedule)	55b		55c	
	56 Investments—other (attach schedule)			56	
	57a Land, buildings, and equipment: basis	57a			
	b Less: accumulated depreciation (attach schedule)	57b		57c	
	58 Other assets (describe ▶)			58	
	59 **Total assets** (add lines 45 through 58) (must equal line 74)			59	
Liabilities	60 Accounts payable and accrued expenses			60	
	61 Grants payable			61	
	62 Deferred revenue			62	
	63 Loans from officers, directors, trustees, and key employees (attach schedule)			63	
	64a Tax-exempt bond liabilities (attach schedule)			64a	
	b Mortgages and other notes payable (attach schedule)			64b	
	65 Other liabilities (describe ▶)			65	
	66 **Total liabilities** (add lines 60 through 65)			66	
Net Assets or Fund Balances	**Organizations that follow SFAS 117, check here** ▶ ☐ and complete lines 67 through 69 and lines 73 and 74.				
	67 Unrestricted			67	
	68 Temporarily restricted			68	
	69 Permanently restricted			69	
	Organizations that do not follow SFAS 117, check here ▶ ☐ and complete lines 70 through 74.				
	70 Capital stock, trust principal, or current funds			70	
	71 Paid-in or capital surplus, or land, building, and equipment fund			71	
	72 Retained earnings, endowment, accumulated income, or other funds			72	
	73 **Total net assets or fund balances** (add lines 67 through 69 or lines 70 through 72; column (A) must equal line 19; column (B) must equal line 21)			73	
	74 **Total liabilities and net assets / fund balances** (add lines 66 and 73)			74	

Form 990 is available for public inspection and, for some people, serves as the primary or sole source of information about a particular organization. How the public perceives an organization in such cases may be determined by the information presented on its return. Therefore, please make sure the return is complete and accurate and fully describes, in Part III, the organization's programs and accomplishments.

Part IV-A **Reconciliation of Revenue per Audited Financial Statements with Revenue per Return** (See page 27 of the instructions.)

a	Total revenue, gains, and other support per audited financial statements ▶	a	
b	Amounts included on line a but not on line 12, Form 990:		
	(1) Net unrealized gains on investments $		
	(2) Donated services and use of facilities $		
	(3) Recoveries of prior year grants $		
	(4) Other (specify): $		
	Add amounts on lines (1) through (4) ▶	b	
c	Line a minus line b ▶	c	
d	Amounts included on line 12, Form 990 but not on line a:		
	(1) Investment expenses not included on line 6b, Form 990 $		
	(2) Other (specify): $		
	Add amounts on lines (1) and (2) ▶	d	
e	Total revenue per line 12, Form 990 (line c plus line d) ▶	e	

Part IV-B **Reconciliation of Expenses per Audited Financial Statements with Expenses per Return**

a	Total expenses and losses per audited financial statements ▶	a	
b	Amounts included on line a but not on line 17, Form 990:		
	(1) Donated services and use of facilities $		
	(2) Prior year adjustments reported on line 20, Form 990 $		
	(3) Losses reported on line 20, Form 990 $		
	(4) Other (specify): $		
	Add amounts on lines (1) through (4) ▶	b	
c	Line a minus line b ▶	c	
d	Amounts included on line 17, Form 990 but not on line a:		
	(1) Investment expenses not included on line 6b, Form 990 $		
	(2) Other (specify): $		
	Add amounts on lines (1) and (2) ▶	d	
e	Total expenses per line 17, Form 990 (line c plus line d) ▶	e	

Part V **List of Officers, Directors, Trustees, and Key Employees** (List each one even if not compensated; see page 27 of the instructions.)

(A) Name and address	(B) Title and average hours per week devoted to position	(C) Compensation (If not paid, enter -0-)	(D) Contributions to employee benefit plans & deferred compensation	(E) Expense account and other allowances

75 Did any officer, director, trustee, or key employee receive aggregate compensation of more than $100,000 from your organization and all related organizations, of which more than $10,000 was provided by the related organizations? ▶ ☐ Yes ☐ No

If "Yes," attach schedule—see page 28 of the instructions.

Part VI Other Information (See page 28 of the instructions.)

			Yes	No
76	Did the organization engage in any activity not previously reported to the IRS? If "Yes," attach a detailed description of each activity.	76		
77	Were any changes made in the organizing or governing documents but not reported to the IRS? If "Yes," attach a conformed copy of the changes.	77		
78a	Did the organization have unrelated business gross income of $1,000 or more during the year covered by this return?	78a		
b	If "Yes," has it filed a tax return on **Form 990-T** for this year?	78b		
79	Was there a liquidation, dissolution, termination, or substantial contraction during the year? If "Yes," attach a statement	79		
80a	Is the organization related (other than by association with a statewide or nationwide organization) through common membership, governing bodies, trustees, officers, etc., to any other exempt or nonexempt organization?	80a		
b	If "Yes," enter the name of the organization ► ..... and check whether it is ☐ exempt or ☐ nonexempt.			
81a	Enter direct and indirect political expenditures. See line 81 instructions 81a			
b	Did the organization file **Form 1120-POL** for this year?	81b		
82a	Did the organization receive donated services or the use of materials, equipment, or facilities at no charge or at substantially less than fair rental value?	82a		
b	If "Yes," you may indicate the value of these items here. Do not include this amount as revenue in Part I or as an expense in Part II. (See instructions in Part III.) 82b			
83a	Did the organization comply with the public inspection requirements for returns and exemption applications?	83a		
b	Did the organization comply with the disclosure requirements relating to quid pro quo contributions?	83b		
84a	Did the organization solicit any contributions or gifts that were not tax deductible?	84a		
b	If "Yes," did the organization include with every solicitation an express statement that such contributions or gifts were not tax deductible?	84b		
85	*501(c)(4), (5), or (6) organizations.* a Were substantially all dues nondeductible by members?	85a		
b	Did the organization make only in-house lobbying expenditures of $2,000 or less?	85b		
	If "Yes" was answered to either 85a or 85b, **do not** complete 85c through 85h below unless the organization received a waiver for proxy tax owed for the prior year.			
c	Dues, assessments, and similar amounts from members. 85c			
d	Section 162(e) lobbying and political expenditures 85d			
e	Aggregate nondeductible amount of section 6033(e)(1)(A) dues notices 85e			
f	Taxable amount of lobbying and political expenditures (line 85d less 85e) 85f			
g	Does the organization elect to pay the section 6033(e) tax on the amount on line 85f?	85g		
h	If section 6033(e)(1)(A) dues notices were sent, does the organization agree to add the amount on line 85f to its reasonable estimate of dues allocable to nondeductible lobbying and political expenditures for the following tax year?	85h		
86	*501(c)(7) orgs.* Enter: a Initiation fees and capital contributions included on line 12. 86a			
b	Gross receipts, included on line 12, for public use of club facilities 86b			
87	*501(c)(12) orgs.* Enter: a Gross income from members or shareholders 87a			
b	Gross income from other sources. (Do not net amounts due or paid to other sources against amounts due or received from them.) 87b			
88	At any time during the year, did the organization own a 50% or greater interest in a taxable corporation or partnership, or an entity disregarded as separate from the organization under Regulations sections 301.7701-2 and 301.7701-3? If "Yes," complete Part IX	88		
89a	*501(c)(3) organizations.* Enter: Amount of tax imposed on the organization during the year under: section 4911 ► ; section 4912 ► ; section 4955 ►			
b	*501(c)(3) and 501(c)(4) orgs.* Did the organization engage in any section 4958 excess benefit transaction during the year or did it become aware of an excess benefit transaction from a prior year? If "Yes," attach a statement explaining each transaction	89b		
c	Enter: Amount of tax imposed on the organization managers or disqualified persons during the year under sections 4912, 4955, and 4958 ►			
d	Enter: Amount of tax on line 89c, above, reimbursed by the organization ►			
90a	List the states with which a copy of this return is filed ►			
b	Number of employees employed in the pay period that includes March 12, 2004 (See instructions.) 90b			
91	The books are in care of ► ..... Telephone no. ► ( )			
	Located at ► ..... ZIP + 4 ►			
92	*Section 4947(a)(1) nonexempt charitable trusts filing Form 990 in lieu of* ***Form 1041***—Check here ► ☐ and enter the amount of tax-exempt interest received or accrued during the tax year ► 92			

Part VII Analysis of Income-Producing Activities (See page 33 of the instructions.)

Note: *Enter gross amounts unless otherwise indicated.*	Unrelated business income		Excluded by section 512, 513, or 514		(E) Related or exempt function income
	(A) Business code	(B) Amount	(C) Exclusion code	(D) Amount	
93 Program service revenue:					
a					
b					
c					
d					
e					
f Medicare/Medicaid payments					
g Fees and contracts from government agencies					
94 Membership dues and assessments					
95 Interest on savings and temporary cash investments					
96 Dividends and interest from securities					
97 Net rental income or (loss) from real estate:					
a debt-financed property					
b not debt-financed property					
98 Net rental income or (loss) from personal property					
99 Other investment income					
100 Gain or (loss) from sales of assets other than inventory					
101 Net income or (loss) from special events					
102 Gross profit or (loss) from sales of inventory					
103 Other revenue: a					
b					
c					
d					
e					
104 Subtotal (add columns (B), (D), and (E))					
105 **Total** (add line 104, columns (B), (D), and (E)) ▶					

Note: *Line 105 plus line 1d, Part I, should equal the amount on line 12, Part I.*

Part VIII Relationship of Activities to the Accomplishment of Exempt Purposes (See page 34 of the instructions.)

Line No. ▼	Explain how each activity for which income is reported in column (E) of Part VII contributed importantly to the accomplishment of the organization's exempt purposes (other than by providing funds for such purposes).

Part IX Information Regarding Taxable Subsidiaries and Disregarded Entities (See page 34 of the instructions.)

(A) Name, address, and EIN of corporation, partnership, or disregarded entity	(B) Percentage of ownership interest	(C) Nature of activities	(D) Total income	(E) End-of-year assets
	%			
	%			
	%			
	%			

Part X Information Regarding Transfers Associated with Personal Benefit Contracts (See page 34 of the instructions.)

(a) Did the organization, during the year, receive any funds, directly or indirectly, to pay premiums on a personal benefit contract? ☐ Yes ☐ No

(b) Did the organization, during the year, pay premiums, directly or indirectly, on a personal benefit contract? ☐ Yes ☐ No

Note: *If "Yes" to (b), file Form 8870 and Form 4720 (see instructions).*

Please Sign Here

Under penalties of perjury, I declare that I have examined this return, including accompanying schedules and statements, and to the best of my knowledge and belief, it is true, correct, and complete. Declaration of preparer (other than officer) is based on all information of which preparer has any knowledge.

▶ Signature of officer — Date

▶ Type or print name and title

Paid Preparer's Use Only

Preparer's signature — Date — Check if self-employed ▶ ☐ — Preparer's SSN or PTIN (See Gen. Inst. W)

Firm's name (or yours if self-employed), address, and ZIP + 4 ▶ — EIN ▶ — Phone no. ▶ ( )

Form **990** (2004)

LIST OF REFERENCES

Analyst reports methodology. (n.d.). Retrieved October 17, 2006, from the GuideStar Web site: http://www.guidestar.org/services/ga_meth.jsp

Anderson, S. (2003). Fundraising programs in community colleges: Factors that contribute to effectiveness. *Dissertation Abstracts International, 64* (10), 3573. (UMI No. 3110089)

Banks, D. & Mabry, T. (1988). Community college foundations. *ERIC Digest*. Retrieved July 1, 2005, from ERIC database.

Bass, D. (2003). From the foundations up: Contexts for change in community college advancement. *New Directions for Community Colleges, 124(Winter)*, 15-26. Retrieved September 7, 2008 from EBSCO database.

Brittingham, B. E. & Pezzullo, T. R. (1990). *The campus green: Fund raising in higher education*. (ASHE-ERIC Higher Education Report No. 1). Washington, D.C.: The George Washington University, Graduate School of Education and Human Development.

Brooks, A. C. (2004). Evaluating the effectiveness of nonprofit fundraising. *Policy Studies Journal, 32*, 363-374. Retrieved July 1, 2005, from Academic Search Premier database.

Carrier, S. M. (2002). The relationship of selected institutional variables to community college foundation revenue. *Dissertation Abstracts International, 64* (03), 770. (UMI No. 3083981)

Carter, M. L. (2005). *Fundraising programs at selected community colleges*. Indianapolis, IN: Ivy Tech State College.

Cheslock, J. J. & Gianneschi, M. (2008). Replacing state appropriations with alternative revenue sources: The case of voluntary support. *The Journal of Higher Education*, 79 (2), 208-229. Retrieved September 6, 2008 from the ERIC database.

Clements, M. A. (1990). An assessment of the effectiveness of development programs in public community colleges. *Dissertation Abstracts International, 51* (12), 4001. (UMI No. 9112409)

Comegno, M. H. (2004). Fundraising effectiveness: Definition and measurement at a women's college. *Dissertation Abstracts International, 65* (06), 2109. (UMI No. 3137312)

Community colleges celebrate 100 years. (n.d.). Retrieved March 25, 2004, from the American Association of Community Colleges Web site: http://www.aacc.nche.edu/Content/NavigationMenu/ResourceCenter/Info_Planning_Tools/CentennialMarketingKit/AACCToolkitIntro.pdf

Cook, W. B. & Lasher, W. F. (1996). Toward a theory of fund raising in higher education. *Review of Higher Education, 20*, 33-51. Retrieved February 28, 2006 from ERIC database.

Creswell, J. W. (2003). *Research design: Qualitative, quantitative, and mixed methods approaches* (2nd ed.). Thousand Oaks, CA: Sage.

Criteria. (n.d.) Retrieved October 17, 2006, from the American Institute of Philanthropy Web site: http://www.charitywatch.org/criteria.html

Cutt, J. & Murray, M. (2000). *Accountability and effectiveness evaluation in non-profit organizations*. London: Routledge.

Daniel, D. E. (2002, Feb/Mar). Partnerships are essential to fundraising. *Community College Journal*. 15. Retrieved March 25, 2004, from http://www.aacc.nche.edu/Content/ContentGroups/CC-Journal/Feb_Mar_2002/15.pdf

Department of the Treasury. (2005). *2005: Instructions for Form 990 and Form 990-EZ*. Cat. No. 22386X.

Edu@GuideStar: *Connecting higher education with nonprofit information*. (n.d.). Retrieved June 23, 2008, from the GuideStar Web site: http://www.guidestar.org/using/edu_prospectus.pdf

Errett, C. D. (2004). The giving tree: Trends in philanthropic giving in Texas community colleges. *Dissertation Abstracts International, 65* (03), 808. (UMI No. 3126129)

Florida Statutes. (2008). *1004.70 Community college direct-support organizations*. Retrieved September 6, 2008, from the Florida Senate Web site: http://www.flsenate.gov/statutes/index.cfm?mode=View%20Statutes&SubMenu=1&App_mode=Display_Statute&Search_String=1004.70&URL=CH1004/Sec70.HTM

Frequently asked questions. (n.d.). Retrieved March 24, 2006, from the GuideStar Web site: http://www.guidestar.org/help/faq.jsp

Frumkin, P. & Kim, M. T. (2001). Strategic positioning and the financing of nonprofit organizations: Is efficiency rewarded in the contributions marketplace? *Public Administration Review*, 61, 266-275. Retrieved September 27, 2008 from the EBSCOhost database.

Glass, J. C. & Jackson, K. L., (1998). Integrating resource development and institutional planning. *Community College Journal of Research and Practice*, 22, 715-739. Retrieved September 6, 2008 from the ERIC database.

Grace, K. S. (1996). *Speaking of money: A guide to fund raising for nonprofit board members*. Washington, D.C.: Boardsource.

Greenlee, J. S. & Bukovinsky, D. (1998). Financial ratios for use in the analytical review of charitable organizations. *The Ohio CPA Journal, 57*(1), 32-38.

GuideStar analyst report. (n.d.). Retrieved October 17, 2006, from the GuideStar Web site: http://www.guidestar.org/services/ga_preview.pdf

Hall, M. R. (2002). Building on relationships: A fundraising approach for community colleges. *Community College Journal of Research & Practice, 26*, 47-60. Retrieved June 24, 2005, from Academic Search Premier database.

Hendrick, R. Z., Hightower, W. H., & Gregory, D. E. (2006). State funding limitations and community college open door policy: Conflicting priorities? *Community College Journal of Research and Practice*, 30, 627-640. Retrieved September 6, 2008 from the ERIC database.

Holman, A. C., Ihrke, D. M., & Grasse, N. J. (n.d.). The analysis of key financial ratios in nonprofit management. Retrieved July 27, 2008, from The Center on Philanthropy at Indiana University Web site: http://www.philanthropy.iupui.edu/Education/Dec_4_Nonprofit_Presentation.ppt

Hull, M. S. (2004). Corporate fund-raising strategies in public community colleges. *Dissertation Abstracts International, 65* (08), 2850. (UMI No. 3144624)

Jackson, K. L. & Keener, B. J. (2002). Introduction to community college resource development: Creating preferred futures. *Community College Journal of Research and Practice, 26*, 1-6. Retrieved June 24, 2005, from ERIC database.

Jenkins, L. W. (1997). Inception, growth, and development of a community college foundation: A case study. *Dissertation Abstracts International, 58* (10), 3817A. (UMI No. 9813778)

Kelley, M. N. (1999). Institutionally related foundations at public colleges and universities. *Dissertation Abstracts International, 61* (02), 442A. (UMI No. 9962273)

LaBeouf, J. P. (2003). Community college education foundations and transformational philanthropy: Resource management, stewardship and professionalism. *Dissertation Abstracts International, 64* (01), 53. (UMI No. 3078662)

Lammers, J. A. (2003). Know your ratios? Everyone else does. *The Nonprofit Quarterly*, Spring, 1-5. Retrieved July 26, 2008, from Fiscal Management Associates Web site: http://www.fmaonline.net/media/Lammers_V10is1.pdf

Loessin, B. A. (1997). Linking fundraising and development with planning. In M. W. Peterson, D. D. Dill, L. A. Mets & Associates (Eds.), *Planning and management for a changing environment: A handbook on redesigning postsecondary institutions* (pp. 307-318). San Francisco, CA: Jossey-Bass.

Loessin, B. A. & Duronio, M. A. (1993). Characteristics of successful fund-raising programs. In M. J. Worth (Ed.), *Educational fund raising: Principles and practice* (pp. 39-50). Phoenix, AZ: American Council on Education and The Oryx Press.

Lomax, R. G. (2001). *An introduction to statistical concepts for education and behavioral sciences*. Mahwah, NJ: Lawrence Erlbaum Associates.

Lyall, K. C. & Sell, K. R. (2006). The de facto privatization of American public higher education. *Change*, (January/February). Retrieved September 6, 2008 from the ERIC database.

McLean, C. & Coffman, S. E. (2004). Why ratios aren't the last word. Retrieved October 17, 2006, from the GuideStar Web site: http://www.guidestar.org/DisplayArticle.do?articleId=850

McMahon, C. L. (2006). Measuring performance in nonprofit animal rescue organizations. *Dissertation Abstracts International, 67* (09). (UMI No 3235877)

Meaders, S. J., Carrier, S. M., & Keener, B. J. (2003, November). *A study of resource development at community colleges* (New Century Series Resource Paper #7). Washington, D.C.: Council for Resource Development.

National Consumer Supporter Technical Assistance Center. (2005). *Fundraising basics*. Alexandria, VA: Author.

Pocock, J. W. (1989). The final score. In J. W. Pocock (Ed.), *Fund-raising leadership: A guide for college and university boards* (pp. 49-55). Washington, D.C.: The Association of Governing Boards of Universities and Colleges.

Prager, Sealy & Co., LLC, KPMG LLP, & BearingPoint Inc. (2005). Strategic financial analysis for higher education. Available from BearingPoint Web site: http://www.bearingpoint.com

Ritchie, W. J. & Kolodinsky, R. W. (2003). Nonprofit organization financial performance measurement: An evaluation of new and existing financial performance measures. *Nonprofit Management and Leadership, 13*, 367-381.

Robison, S. (1984). The development of the two-year college foundation and techniques of success. In W. H. Sharron (Ed.), *The community college foundation* (pp. 31-46). Washington, D.C.: National Council for Resource Development.

Schuyler, G. (1997). Fundraising in community college foundations. *ERIC Digest*. Retrieved March 25, 2004 from http://www.ericfacility.net/databases/ERIC_Digests/ed405943.html

Smith, S. R. (2005). Performance benchmarking: Lessons on using performance benchmarks to maximize fundraising results. *New Directions for Philanthropic Fundraising*, 49, 109-119.

Stevenson, T. J. (2001). Fundraising practices at selected midwestern two-year colleges: Community, junior, and technical college foundations in the twenty-first century. *Dissertation Abstracts International, 63* (01), 94. (UMI No. 3038443)

Tisdale, J. T. (2003). Critical components of Mississippi community college foundations. *Dissertation Abstracts International, 64*, (03), 755. (UMI No. 3084221)

Trussel, J. M. (2006a). *Analyzing the financial statements of nonprofit organizations: A case study*. Retrieved September 28, 2008 from the Association of Fundraising Professionals Web site: http://www.afpnet.org/content-documents/ap_case_study_092007.pdf

Trussel, J. M. (2006b). *Analyzing the financial statements of nonprofit organizations: A study of the major sectors*. Retrieved August 1, 2008 from the Association of Fundraising Professionals Web site: http://www.afpnet.org/content_documents_ap_sectors_092007.pdf

Trussel, J. M. (2007). Financial rx: How to measure your organization's financial health and performance. *Advancing Philanthropy*, September. Retrieved July 27, 2008, from the Association of Fundraising Professionals Web site: http://www.afpnet.org/content_documents/ap_financial_rx_092007.pdf

Twu, R. (2007). A study of factors influencing reported fundraising efficiency of symphony orchestras. *Dissertation Abstracts International, 69* (02). (UMI No. 3297092)

Waddell, J. C. (1995). A descriptive analysis of tax-exempt not-for-profits' financial data for use in accounting research. *Dissertation Abstracts International, 57* (01), 316. (UMI No. 9615387)

Worth, M. J. (1989). The institutionally related foundation in public colleges and universities. In J. W. Pocock (Ed.), *Fund-raising leadership: A guide for college*

and university boards (pp. 63-74). Washington, D.C.: The Association of Governing Boards of Universities and Colleges.

Worth, M. J. & Asp, J. W. (1994). *The development officer in higher education: Toward an understanding of the role* (ASHE-ERIC Higher Education Report No. 4). Washington, D.C.: The George Washington University, Graduate School of Education and Human Development.