FINANCIAL PREDICTORS OF FRAUD IN NONPROFIT ORGANIZATIONS

by

Dawn Marie Schwartz

Doctoral Study Submitted in Partial Fulfillment

of the Requirements for the Degree of

Doctor of Business Administration

Liberty University, School of Business

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Abstract

Nonprofit organizations are especially vulnerable to fraud. Incidents of fraud can have devastating consequences on these organizations and the nonprofit sector overall. This applied doctoral research project examined the use of financial predictors for reported fraud in U.S. nonprofit organizations. The study utilized financial data from 2017 IRS Form 990 filings of 644 U.S. nonprofit organizations with a 501(c)(3) tax exempt status. The researcher performed logistic regression analysis to determine and evaluate any associations between the financial variables and the existence of reported fraud. Three of the financial variables, cash growth rate (p=.001), asset growth rate (p=.046), and the ratio of disqualified compensation to total compensation (p=.033), were found to be statistically significant as individual predictors for reported fraud in the sample analyzed. The prediction model using seven financial variables (revenue growth rate, program expense ratio, cash growth rate, the ratio of cash to total assets, asset growth rate, the ratio of top compensation to total expenses, and the ratio of disqualified compensation to total compensation) was found to be a significant prediction model (p=.001) for reported fraud in the sample analyzed. The model explained five percent (5%) of the variance in the likelihood of fraud and correctly classified 66.7% of the cases analyzed. The findings of this research are useful to auditors, policymakers, management, board members, donors, creditors, and other stakeholders of nonprofit organizations for evaluation of fraud risk, analysis, and development of effective internal controls to protect against fraud.

Keywords: financial fraud predictors, fraud risk, nonprofit organizations, nonprofit fraud

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Dr. Scott Stultz, Dissertation Chair

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Dedication

I would like to dedicate this dissertation to several people who have contributed to my success in graduate school. First, to my late mother, who always supported me and believed in me. Her deep sadness and regret for not being able to finish elementary school due to her family's need for her on the farm fueled her determination and love for learning. I thank her for instilling that in me. My mother taught me to stand up for what is right, which fuels my passion for fighting fraud and inspired this research.

To my husband, who has provided invaluable support and encouragement throughout this journey. I am thankful for your constant love and support. Without you, this would not have been possible. Thank you for being my rock.

I further want to dedicate this dissertation to my children, Caitlyn, Megan, Ezra, and Abigail. You are my inspiration and my reason for pushing myself to great success. Caitlyn and Megan, you have provided years of support throughout multiple graduate programs. Thank you both for always being my cheerleaders. Your love and support means more to me than you will ever know. Ezra and Abigail, you are so young and so full of life (and energy). Thank you for providing me with constant reminders of the most important things in life…my family, laughter, taking time to splash in puddles, coffee (lots of coffee), and sleep (as it has been scarce).

Acknowledgments

This dissertation, as well as my success in graduate school, would not have been possible without the generous help and support of others. First, I would like to thank my husband, my rock, and biggest supporter. I would like to thank my four beautiful children, Caitlyn, Megan, Ezra, and Abigail, for their constant support and encouragement. I would also like to thank two individuals who have provided immense support and encouragement throughout this process, my niece and best friend, Somer, and my mentor and friend, Susan. Somer and Susan's constant support and guidance helped contribute to my perseverance and success in the graduate program. To all my family and friends who provided prayer, encouragement, and support, I extend my sincere appreciation.

I would like to thank the Liberty University faculty and staff for their continued support and prayer throughout my program. I would like to extend my sincere appreciation to my committee chair, Dr. Scott Stultz, for his guidance, recommendations, and encouragement during my dissertation process. I would also like to individually thank my committee member, Dr. Gene Sullivan, and the DBA director, Dr. Edward Moore, for their guidance and encouragement.

Above all, I thank God for His strength and guidance that made completion of this program possible. Jeremiah 29:11, "For I know the plans I have for you," declares the Lord, "plans to prosper you and not to harm you, plans to give you hope and future." Soli Deo Gloria!

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Section 1: Foundation of the Study

The prevalence of fraud, waste, and abuse in nonprofit organizations calls for action by the accounting field. The current body of knowledge does not provide a mechanism to utilize financial information as a fraud prediction tool. This research was conducted to help solve the problem in hopes to better fight fraud and decrease the resulting losses and damage.

Background of the Problem

Nonprofit organizations are increasingly targeted by volunteers and employees who perpetrate fraud and abuse of the organizations' assets (Crumbley, Fenton, Smith, & Heitger, 2017). These organizations are often more susceptible to fraud, waste, and abuse because of their trusting nature and size (Crumbley et al.). Many smaller nonprofit organizations do not have the ability to hire the amount of qualified staff necessary for appropriate segregation of duties and approvals for disbursements (Archambeault, Webber, & Greenlee, 2015). Instances of fraud, waste, and abuse in nonprofit organizations severely impact the nonprofit sector by damaging the public's trust in nonprofit organizations and threatening future support of the organizations (Archambeault & Webber, 2018; Adena, 2016; Kim, 2017; Peltier-Rivest & Lanoue, 2015). Without adequate support, these organizations may not be able to advance their missions, which could negatively impact society overall (Bradley, 2015; Gose, 2018).

Red flags have been identified for use by management, auditors, and donors for assessments of nonprofit organizations (Crumbley et al., 2017). However, often times these red flags do not appear until the incidents of fraud, waste, and abuse have already occurred and have grown large enough to be noticed. The longer fraud schemes go undetected, the greater the losses and impact tends to be (Association of Certified Fraud Examiners [ACFE], 2018). This

suggests the importance of fraud prevention, prediction, and earlier detection in nonprofit organizations.

There are many indicators that have been developed to attempt to predict fraud in for-profit organizations. Weske and Benuto (2015) discussed the use of share prices and price/earnings ratios as predictors of fraud in public companies. Beneish created a model with indicators that are utilized to assess fraud risk (Oltean, 2016) and detect instances of financial statement fraud and earnings manipulation (Repousis, 2016). However, there has been limited research for fraud, specifically fraud risk and predictability, in nonprofits.

There is a current gap in literature pertaining to indicators of fraud and fraud risk assessment techniques for nonprofit organizations. Scholarly research for nonprofit organizations primarily focuses on the transparency of the organizations (Hyndman & McConville, 2016; Jensen & Meisenbach, 2015), reporting requirements (Calabrese, 2011; Neely, 2011) efficiency assessment (Garven, Hofmann, & McSwain, 2016; Ryan & Irvine, 2012), financial characteristics of nonprofits with higher than expected program expense ratios (Trussel, 2003), and impact of information on donations (Li & McDougle, 2017; Parsons, 2007). Therefore, there is a need to research possible fraud risk indicators and predictors to further assist management and boards of nonprofit organizations with fraud prevention and discovery of fraud more quickly.

Problem Statement

The general problem to be addressed is fraud, waste, and abuse in nonprofit organizations. Nonprofit organizations are increasingly targeted by volunteers and employees who perpetrate fraud and abuse of the organizations' assets (Crumbley et al., 2017). Nonprofit organizations typically have more limited staff, a lack of sophisticated internal controls, and a

culture based on trust, which make them more susceptible to fraud, waste, and abuse scandals (Archambeault et al., 2015). Gordon, Hager, Pollack, Rooney, and Wing (2006) stated, "nonprofit financial reporting represents a potential ticking time bomb for the profession" (p. 14). This is primarily due to items being misrepresented in the financial reporting process (Gordon et al.). A nonprofit organization may have monetary losses from fraud, damage to its reputation, and decreased donations which could impact the ability of the organization to advance its mission. The longer a fraud goes undetected, the more damage it causes the organization (ACFE, 2016). Therefore, effective and efficient mechanisms for evaluation must be identified that would allow an assessment of fraud risk indicators for nonprofit organizations. The specific problem to be addressed is the need for financial predictors for fraud, waste, and abuse in nonprofit organizations. Fraud risk indicators could help to combat fraud by assisting with more timely identification of fraud, waste, and abuse instances. They may also assist with fraud prevention.

Purpose Statement

The purpose of this non-experimental quantitative study was to examine possible correlations between the change in financial indicators and incidents of fraud, waste, and abuse in nonprofit human services organizations in order to provide improved techniques for the evaluation of fraud risk in nonprofit organizations. The primary purpose of this study was to add to the body of knowledge through the development of new evaluation methods for fraud risk analysis of nonprofit organizations. This study was also designed to provide management, board of directors, donors, and auditors with additional tools to assess the fraud risk of nonprofits.

Scholarly research for nonprofit organizations primarily focuses on the transparency of the organizations (Hyndman & McConville, 2016; Jensen & Meisenbach, 2015), reporting

requirements (Calabrese, 2011; Neely, 2011) efficiency assessment (Garven et al., 2016; Ryan & Irvine, 2012), and impact of information on donations (Li & McDougle, 2017; Parsons, 2007). Parsons and Trussel (2007) proposed financial reporting factors (i.e., organizational efficiency, financial stability, information availability, and reputation) that relate to donations. This research study was designed to uncover additional relationships and techniques to assist donors with the analysis and evaluation of Parsons and Trussel's proposed factors.

Nature of the Study

The nature of this study was a quantitative, non-experimental, logistic regression method. Quantitative research is designed to investigate the existence of relationships among variables (Creswell, 2014). Non-experimental research is appropriate for research conducted to identify associative relationships, rather than cause and effect (Radhakrishnan, 2013). The goal of this study was to determine if associations exist between select financial indicators and instances of fraud. Therefore, non-experimental regression analysis was the method most useful for determining the existence of any associations between variables as well as any predictive value for fraud.

Discussion of Method

The researcher chose the quantitative method of data analysis for this study because it was the most appropriate method to provide an analysis of any relationship between selected financial indicators and instances of fraud, waste, and abuse in the nonprofit organizations studied (Creswell, 2014). This study utilized selected historical numerical data, which was best addressed through a quantitative method. Quantitative methods are used to gather numerical data rather than data gathered through words as employed from the qualitative method (Sekaran & Bougie, 2016). A qualitative method was not chosen for this study because it would not

address the research questions selected for this study. Qualitative research is typically designed to answer how things work or why they work by studying human perception and understanding of certain phenomenon (Stake, 2010). This form of research may be beneficial for future research to determine the perception and attitudes of donors about financial indicators. However, for the purpose of this study, it was not appropriate.

Mixed methods research is designed to answer questions and provide more information than what is available through the use of only a quantitative or qualitative research method (Sekaran & Bougie, 2016). The use of mixed methods research requires the researcher to conduct both quantitative and qualitative research integrating the data collected to explore a phenomenon in more detail (Halcomb & Hickman, 2015). This form of research may be beneficial for future research to examine the culture including the perceptions and attitudes of management, employees, and board members of the nonprofit organizations. However, mixed methods research was not selected for this study because it would not have been appropriate to answer the research questions.

Discussion of Design

The researcher selected the non-experimental logistic regression design for this study. A non-experimental approach was chosen because the purpose of the study was to uncover any correlations rather than to detect a cause and effect relationship (Sekaran & Bougie, 2016). Experimental designs require the manipulation of independent variables to test for a cause and effect relationship (Creswell, 2014; Sekaran & Bougie). This type of design was not chosen for this study because this study was not designed to test for cause and effect relationships. A non-experimental design is used to explore and describe existing phenomena (Radhakrishnan, 2013). The use of a non-experimental design does not require manipulations of the independent variable

(Radhakrishnan). Rather, the researcher is able to investigate the phenomena studied as it was in its current state.

A logistic regression design was chosen for this study because it was designed to investigate the existence of associations among the variables and predictive value. The goal of logistic regression analysis is to predict a dependent variable from a combination of independent variables (Leech, Barrett, & Morgan, 2014; Sekaran & Bougie, 2016). Other quantitative methods considered, but rejected were: (a) descriptive and (b) quasi-experimental. A descriptive design was not appropriate for this study because the research questions in this study require the analysis of relationships for multiple variables (Sekaran & Bougie). A quasi-experimental design was not appropriate for this study because it requires the use of experimental procedures which was not introduced and do not assist with answering the research questions (Kim & Steiner, 2016). In this study, the researcher examined historical financial data to determine the existence of relationships among the variables, which was best conducted through the use of non-experimental correlational study design.

Summary of the Nature of the Study

As discussed above, the nature of this study was a quantitative, non-experimental, correlational method. A quantitative method was chosen because this study is investigating the existence of relationships among variables (Creswell, 2014). The researcher chose a correlational method of analysis to determine if relationships exist between select financial indicators and instances of fraud, waste, and abuse.

Research Questions

The study addressed two research questions. The first research question was: Is there a statistically significant association between revenue growth rate; program expense ratio;

fundraising expense ratio; administration expense ratio; cash and cash equivalents growth rate; ratio of cash and cash equivalents to total assets; total asset growth rate; ratio of compensation to current, officers, directors, trustees, and key employees to total expenses; ratio of compensation of current officers, directors, trustees, and key employees to total compensation; ratio of disqualified compensation to total compensation and reported instances of fraud? Rapid growth has been linked to an increased risk of fraud in for-profit organizations (Crumbley et al., 2017). This question was intended to investigate any association between a nonprofit's annual revenue and asset growth rate and instances of fraud to identify if a higher revenue and/or asset growth rate would also increase the risk of fraud in nonprofit organizations.

A nonprofit organization's efficiency is often assessed through an evaluation of program expense ratio, administrative (management and general) expense ratio, and fundraising expense ratio (Hyndman & McConville, 2016). There is much public scrutiny pertaining to the amount of monies spent by nonprofits on program versus other administrative and fundraising expenses. This scrutiny and pressure to demonstrate an acceptable program expense ratio has caused some managers to practice questionable program expense management (Keating, Parsons, & Roberts, 2008; Krishnan & Yetman, 2011; Krishnan, Yetman, & Yetman, 2006).

Growth has been associated with increased fraud risk (Petrovits, Shakespeare, & Shih, 2011). Due to the liquidity of cash and ease of access, having large amounts of cash and cash equivalents on hand may increase the risk of fraud through embezzlement and misappropriation of assets (ACFE, 2016). Therefore, analyzing the cash and cash equivalents growth rate, and the proportion of cash and cash equivalents to total assets, may help to identify if there is a growth rate or proportion that increases fraud risk.

Executive compensation in nonprofit organizations is often scrutinized, particularly if public perception deems it too high. The IRS requires nonprofit organizations to report compensation to current officers, directors, trustees, and key employees separately from other employees on Form 990. Public perception of high executive compensation is often negative. However, there could be logical rationale for high compensation based on the person's expertise, experience, capabilities, and other assets. If executive pay is linked to performance, it increases the risk of fraudulent financial reporting because it may give executives an incentive to falsify results in order to receive higher compensation (ACFE, 2016). This project investigated any association of the ratio of top compensation to total expenses and the ratio of top compensation to total compensation with cases of reported fraud. Any associations may help identify new measures for nonprofit risk assessment and management.

The IRS requires nonprofit organizations to report any compensation to disqualified persons separately on Form 990. Disqualified persons include any person who was in a position of substantial influence of the nonprofit organization during a five-year period prior to the date of the compensation (IRS, 2017). According to the IRS, this would include executive employees, voting board members, and treasurers. Disqualified compensation would include any amounts paid to disqualified persons that are deemed above reasonable compensation. It would also include any excess benefit transactions. Excess benefit transactions include any transaction in which the disqualified person receives something of greater value than the consideration given (i.e., performance of services; IRS). The researcher investigated any association between the ratio of disqualified compensation to total compensation and reported instances of fraud in order to identify possible measures for nonprofit risk assessment and fraud prediction.

Hypotheses

The hypotheses for this study were as follows:

$H_0$1. There is no statistically significant association between the revenue growth rate and reported instances of fraud.

H_A1. There is a statistically significant association between the revenue growth rate and reported instances of fraud.

$H_0$2. There is no statistically significant association between the program expense ratio and reported instances of fraud.

H_A2. There is a statistically significant association between the program expense ratio and reported instances of fraud.

$H_0$3. There is no statistically significant association between the fundraising expense ratio and reported instances of fraud.

H_A3. There a statistically significant association between the fundraising expense ratio and reported instances of fraud.

$H_0$4. There is no statistically significant association between the administrative expense ratio and reported instances of fraud.

H_A4. There a statistically significant association between the administrative expense ratio and reported instances of fraud.

$H_0$5. There is no statistically significant association between the cash and cash equivalents growth rate and reported instances of fraud.

H_A5. There is a statistically significant association between the cash and cash equivalents growth rate and reported instances of fraud.

$H_0$6. There is no statistically significant association between the ratio of cash and cash equivalents to total assets and reported instances of fraud.

H_A6. There is a statistically significant association between the ratio of cash and cash equivalents to total assets and reported instances of fraud.

$H_0$7. There is no statistically significant association between the total asset growth rate and reported instances of fraud.

H_A7. There is a statistically significant association between the total asset growth rate and reported instances of fraud.

$H_0$8. There is no statistically significant association between the ratio of compensation to current officers, directors, trustees, and key employees to total expenses and reported instances of fraud.

H_A8. There is a statistically significant association between the ratio of compensation to current officers, directors, trustees, and key employees to total expenses and reported instances of fraud.

$H_0$9. There is no statistically significant association between the ratio of compensation to current officers, directors, trustees, and key employees to total compensation and reported instances of fraud.

H_A9. There is a statistically significant association between the ratio of compensation to current officers, directors, trustees, and key employees to total compensation and reported instances of fraud.

$H_0$10. There is no statistically significant association between the ratio of disqualified compensation to total compensation and reported instances of fraud.

H_A10. There is a statistically significant association between the ratio of disqualified compensation to total compensation and reported instances of fraud.

$H_0 11$. No combination of the financial variables is able to predict fraud within the sample.

$H_A 11$. Some combination of the financial variables is able to predict fraud within the sample.

Theoretical Framework

The theoretical framework for this study was based on three theories from the current body of literature: agency theory, stewardship theory, and the fraud triangle. Figure 1 represents the impact of the three theories on incidents of fraud, waste, and abuse in nonprofit organizations. The framework includes the independent variables that were evaluated in this study. Each theory, and how they link to the study, will be explored and discussed in this section.

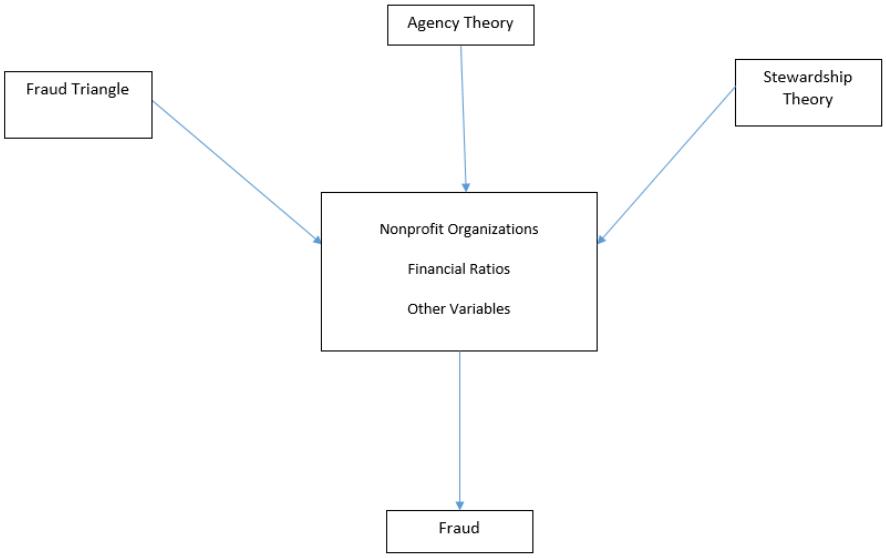

Figure 1. Theoretical Framework.

Agency Theory

Agency theory was first developed by Adam Smith who theorized if an organization is managed by someone other than the owners, there is a possibility they may not act in the best interest of the owners (Panda & Leepsa, 2017). The theory is based on a relationship between a principal and an agent. The principal delegates control to the agent to act on his/her behalf (Bernstein, Buse, & Bilimoria, 2016). In the case of nonprofit organizations, the donors are the principals who contribute to the organization for the organization to utilize for purposes of obtaining its mission. Donors typically do not have control over the how funds are utilized in a nonprofit organization unless there are contractual stipulations for the spending of such funds. Therefore, the donors trust management of the nonprofit organization to utilize the donations for achieving the mission of the organization. Sometimes the organization and the donors may have conflicting interests and the agent may act in self-interest (Jensen & Meckling, 1976). This is referred to as the agency problem (Jensen & Meckling).

The agency problem arises when the goals and desires of the principal and agent differ and when it is difficult for the principal to monitor the behavior of the agent (Eisenhardt, 1989). Eisenhardt made two recommendations to help alleviate the agency problem (a) have a contractual agreement that explicitly states the expected outcome and (b) have strong information sharing where the agents distribute information to the principal that explains the actions conducted on their behalf (Eisenhardt). Tan and Lee (2015) discussed how agency problems negatively impact customer loyalty. In order to alleviate the agency problem and improve customer trust and loyalty, Tan and Lee explained three types of risks to be addressed: (a) goal symmetry, (b) risk asymmetry, and (c) information asymmetry.

Goal asymmetry exists if the principal perceives the agent has differing goals and interests than the principal (Tan & Lee, 2015). Risk asymmetry exists if the principal perceives the agent has differing attitudes toward risk and risk-based decisions (Tan & Lee). The third type of risk explained by Tan and Lee, information asymmetry, exists when one party has information the other party desires. In the case of nonprofit organizations, the customers are donors (i.e., principals) who trust nonprofit management (i.e., agents) to have similar goals and interests as well as to make similar risk-based decisions. If donors perceive that they cannot trust the nonprofit management, they may decrease or stop donations/support of the organization.

In order to trust the management of nonprofit organizations, donors need to be able to evaluate management's performance and determine whether or not donor expectations are met. This requires adequate information sharing which also helps to address the information asymmetry discussed by Tan and Lee (2015). Some donors may have contractual agreements as discussed above that stipulate the spending of funds, which allows for monitoring and evaluation of the spending. However, many nonprofits rely on multiple donors and/or public support that may not have contractual stipulations. In those cases, the donors rely on the nonprofit organizations to provide information pertaining to the performance of the organization including support, spending, and impact. Some nonprofit organizations may provide information to donors via program flyers, newsletters, public advertising, and their websites. Though, without a contractual agreement, nonprofit organizations are not required to do so. The Internal Revenue Service (IRS) collects data from nonprofit organizations that is publicly available. Most nonprofit organizations, who meet the requirements, publish financial information on their IRS Form 990. This information can be utilized by the donors (i.e., principals) to understand the

financials of the organization and attempt to assess the three risks (i.e., goal asymmetry, risk asymmetry, and information asymmetry) explored by Tan and Lee.

Stewardship Theory

Donaldson and Davis (1991) theorized that there is no conflict (e.g., agency problem) between managers and the goals of the stakeholders. Instead, they theorized management behaviors are in alignment with the interests of the principals, which they called the stewardship theory (Donaldson & Davis). Thus, the stewardship theory holds that management will act in the best interest of the stakeholders and agents because they desire to be good stewards of the resources and to do their job well (Donaldson & Davis). This is a more optimistic view of the behavior of management/agents and implies that management/agents are committed to the mission of the organization. The stewardship theory helps to reduce two of the risks discussed by Tan and Lee (2015), goal asymmetry and risk asymmetry.

The management team members of nonprofit organizations are responsible for the appropriate use of resources to accomplish the mission of the organization. Donors trust that management will utilize the resources according to the best interests of the agents/stakeholders rather than their own self-interests. Brown and Yoshioka (2003) suggested the staff of nonprofit organizations are likely to be motivated by the nonprofit organization's mission and values. However, incidents of fraud, waste, and abuse indicate that this is not always the case. Therefore, it would appear in some circumstances the stewardship theory may not hold true based on the individual and their personal motivation. Davis, Schoorman, and Donaldson (1997) explained that principals may have agency relationships and stewardship relationships that change over time as interest alignment changes.

Kluvers and Tippett's (2011) findings indicated stewards prioritize the collective goals of their organization over their personal goals and the interests of the principal over their self-interest. This commitment to the principal over self-interest is consistent with the stewardship theory. However, there are instances where the circumstance may change the agent's level of commitment. Brown and Yoshioka (2003) found perceptions of inadequate pay among staff at nonprofit organizations caused a reduction of commitment to the organization. A reduction in commitment to organizations could deter agents from the interests of the principals and cause them to focus more on their own self-interest. The fraud triangle, as discussed below, may explain how this could occur.

Fraud Triangle

Cressey (1973), who studied criminology, developed a theory known as the fraud triangle, to explain the circumstances that may lead to someone perpetrating fraud. Cressey's fraud triangle (Figure 2) is founded on the notion that in order to perpetrate fraud there must be three things present in the situation. A person must have (a) pressure to induce the action of fraud, (b) opportunity to perpetrate the fraud, and (c) the ability to rationalize the fraud (Cressey). The fraud triangle was developed from Cressey's (1973) hypothesis:

> Trusted persons become trust violators when they conceive of themselves as having a financial problem which is non-sharable, are aware this problem can be secretly resolved by violation of the position of financial trust, and are able to apply to their own conduct in that situation verbalizations which enable them to adjust their conceptions of themselves as trusted persons with their conceptions of themselves as users of the entrusted funds or property. (p. 30)

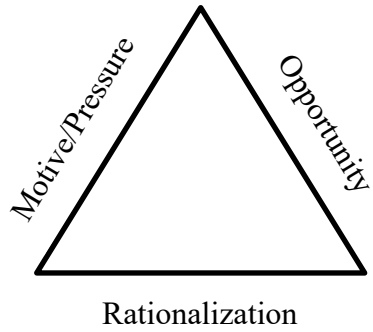

Figure 2. Fraud Triangle.

An organization has limited control over pressures that employees may encounter, nor can they control employees' ability to rationalize immoral behavior. However, organizations can control the opportunity employees have to perpetrate fraud. The best way organizations can protect themselves from fraud is to adopt and utilize a good system of internal controls that requires appropriate segregation of duties and approvals. Segregation of duties requires critical functions of a process be performed by more than one person or department (AICPA, 2018). This helps to deter and reduce incidents of fraud and abuse by not allowing one person to have the ability to perpetrate the fraud and conceal it. Without implementation of appropriate segregation of duties, detection can be more difficult.

Nonprofit organizations are more susceptible to fraud because they are typically built on a culture of trust which makes them inherently more at risk for people taking advantage of any weaknesses (Behn, DeVries, & Lin, 2010). They also typically do not have enough staff nor staff who are appropriately educated to conduct the duties (Behn et al.). Another internal control weakness of nonprofit organizations is that they do not have appropriate segregation of duties (Behn et al.). These weaknesses of nonprofit organizations provide an opportunity for individuals to perpetrate fraud.

Discussion of Relationships between Theories and Variables

The combination of agency theory, stewardship theory, and the fraud triangle provide the theoretical support for this study. Donors (i.e., principals) trust management of nonprofit organizations (i.e., agents) to utilize resources efficiently and effectively for the mission of the organization. Demski and Faltham (1978) have utilized agency theory in accounting research to help explain the use of budgetary mechanisms to mitigate the risk of the agency problem. For this study, it is important to understand the motivation of the management of nonprofit organizations with regard to changes in certain financial indicators and how that relates to the agency theory, the stewardship theory, and the fraud triangle.

Summary of the Theoretical Framework

There are situational and psychological factors that influence how one acts when serving as an agent or a principal (Davis et al., 1997; Pastoriza & Arino, 2008). These factors may change depending on the circumstances and the person. As organizations grow, the situational and psychological factors that management faces may change. This may increase the risk of management acting in their self-interest more than for the stakeholders of the organization. These factors influence fraud risk, specifically contributing to motive and pressure as explained in the fraud triangle.

Definition of Terms

Definitions of terms utilized throughout this study are listed below in order to provide a clear understanding of their meaning for purposes of this study.

Administrative (management and general) expense ratio: The administrative expense ratio is calculated as the total management and general expenses reported divided by the total expenses reported for that year (Charity Navigator, 2017).

Administrative (management and general) expenses: Administrative (management and general) expenses are expenses that are related to the nonprofit's operations and management; they are not program expenses or fundraising expenses (IRS, 2016). For example, administrative expenses would include the salaries and benefits of the nonprofit's executive officers and staff unless a portion of their time is allocated to specific program or fundraising activities (IRS).

Asset misappropriation: Asset misappropriation is the theft, waste, or abuse of organizational assets.

Corruption: Corruption is the wrongful use of one's influence in business transactions for their own personal benefit (Saksena, 2010).

Direct expenses: Direct expenses are expenses that are identified as specific to an activity or project of the nonprofit organization, so they are able to be charged to the appropriate program (IRS, 2016).

Disqualified compensation: Disqualified compensation is any compensation given to a disqualified person (IRS, 2017).

Disqualified person: A disqualified person according to the IRS is a person who was in a position of substantial influence of the nonprofit organization at any time during five years prior to the date of the disqualified compensation.

Financial statement fraud: Financial statement fraud is the manipulation, falsification, or alteration of accounting records. It includes any intentional omission or misrepresentation in the financial statements of data and/or disclosures and any intentional misapplication of accounting principles to misrepresent financial statements.

Fraud: Fraud is defined an intentional act to deceive another for one's personal gain (Greenlee, Fischer, Gordon, & Keating, 2007). According to Wells (2014) fraud consists of four

elements: a material false statement, knowledge that the statement was false, reliance by the victim on the false statements, and damages resulting from the false statement and the victim's reliance on that statement.

Fraud risk: Fraud risk is the risk that fraud may occur in an organization.

Fundraising expense ratio: The fundraising expense ratio is calculated as the total fundraising expenses reported divided by the total expenses reported for that year (Charity Navigator, 2017).

Fundraising expenses: Fundraising expenses are explained by the IRS as expenses a nonprofit incurs when soliciting case and noncash contributions, gifts, and grants. Some overhead expenses may also be reported as fundraising if they were incurred for fundraising campaigns and/or soliciting contributions.

Indirect expenses: Indirect expenses are expenses that cannot be identified specifically for an activity or project (IRS, 2016). The expenses may be for several different areas and may need to be allocated to the appropriate programs.

Internal control: Internal control is a process utilized to provide "reasonable assurance" that objectives related to the efficiency and effectiveness of operations, reliability of financial reporting, and compliance with applicable regulations are met (AICPA, 2013).

IRS Form 990: The IRS Form 990 is defined by the IRS (2016) as the annual information return of organizations exempt from income tax that has gross receipts of $200,000 or more or total assets of $500,000 or more.

Nonprofit organization: A nonprofit organization, also known as a not-for-profit organization and/or a nonprofit, is a tax-exempt business that serves a nonprofit purpose as

defined by the IRS (2016). Examples of tax-exempt purposes for nonprofit organizations are: charitable, religious, educational, scientific, literary, and social welfare (IRS).

Occupational fraud: Occupational fraud is the intentional misuse or misapplication by an employee of their company's assets and/or resources (Association of Certified Fraud Examiners [ACFE], 2018).

Percent change in total cash and cash equivalents balances: The change in total cash and cash equivalents ratio is defined for the purposes of this study as the current year ending net cash and cash equivalents balance minus the prior year ending cash and cash equivalents balance. Then the change in total cash and cash equivalents is divided by the prior year ending cash and cash equivalents balance to obtain the percent change in total cash and cash equivalents.

Program expense ratio: The program expense ratio is calculated as the total program expenses reported divided by the total expenses reported for that year.

Program expenses: Program expenses are the activities that pertain to the nonprofit's exempt purpose (IRS, 2016).

Staff compensation and benefits expense ratio: The staff compensation and benefits expense ratio is calculated as the total staff compensation and benefits expenses reported divided by the total expenses reported for that year.

Top compensation: Top compensation is the compensation to current officers, directors, trustee, and key employees as reported on Form 990, part IX, line 5.

Assumptions, Limitations, Delimitations

Assumptions of a study help guide the reader to understand the assumptions the researcher relied upon throughout the research, findings, and conclusions (Sekaran & Bougie, 2016). Limitations provide the reader with information pertaining to the limits of the study. The

delimitations of the study help define the scope of the study for the reader. The assumptions, limitations, and delimitations of the study are discussed below in order to provide the reader with an understanding of those items and how they impact the study and findings.

Assumptions

The assumptions for the study were that the financial data gathered by the researcher accurately depicted the nonprofit organizations' expense ratios, data related to foundations and compensation, and information pertaining to incidents of fraud, waste, and abuse. The data were obtained from 2017 IRS Form 990s filed by the nonprofit organizations. IRS Form 990s are completed by the individual nonprofit organizations and submitted to the IRS. The researcher assumed the data provided by the nonprofit organizations used for the statistical analysis were free of material errors that would have impacted the integrity of this study. However, if this assumption is not true, then there is a risk that the results of this study may be incorrect which could lead to misleading results.

The assumption was made that the nonprofits without any publicly available information pertaining to incidents of fraud, did not have any incidents to report. However, there is no absolute assurance that the nonprofit organizations in the sample marked as no incidents of fraud did not have incidents of fraud. Therefore, there is a chance that the data utilized in the analysis and classified as no incidents of fraud did have incidents of fraud that had not been identified as such at the time of the research. In order to mitigate this risk, the researcher used the most recent data available through a third party, Candid (formerly known as GuideStar). Data reported through Candid are publicly available. Therefore, it is reasonable to assume if there were any instances of fraud not reported, the organization would update them as the information becomes available.

Limitations

The use of a sample limits this research to the results of the selected sample (Salkind, 2013). Sampling is necessary due to resource and time constraints. However, due to the use of a sample, the results of this study cannot be generalizable to all U.S. public nonprofit organizations.

Delimitations

Delimitations describe the boundaries and scope of a study. The scope of the study was public nonprofit organizations with a 501(c)(3) exempt status in the United States who filed a 2017 IRS Form 990. This study focused on U.S. nonprofit organizations to help ensure consistent and comparable reporting among the sample. The year 2017 was chosen in an effort to utilize the most recent reporting data available.

Significance of the Study

The researcher designed this project to assist with the development of new indicators for the assessment of fraud risk. Regulatory agencies, watchdogs, auditors, and members of the accounting profession may be able to use the framework to develop risk analysis, requirements for additional disclosures of information, and requirements for consistency and comparability among nonprofits. It may potentially provide guidance for donors, grantors, management, board members, and other users of financial information in the evaluation of nonprofit organizations. Krishnan et al. (2006) found positive association between misreporting behavior and managerial incentives. Therefore, this research may be used by board members and management to determine reasonable metrics for internal assessment and ensure incentives for management and executive compensation are not based solely on financial performance indicators to further prevent misconduct.

Reduction of Gaps

As previously stated, there is a current gap in literature pertaining to financial predictors of fraud for nonprofit organizations. Scholarly research for nonprofit organizations primarily focuses on the transparency of the organizations (Hyndman & McConville, 2016; Jensen & Meisenbach, 2015), reporting requirements (Calabrese, 2011; Neely, 2011), efficiency assessment (Garven et al., 2016; Ryan & Irvine 2012), and impact of information on donations (Li & McDougle, 2017; Parsons, 2007). Research focused on the development of financial fraud risk indicators would help to address this gap in current literature. It would also help the stakeholders of nonprofits more effectively evaluate the organizations. Financial indicators of fraud could also be utilized by the management and board of directors of nonprofit organizations to identify fraud risk, prevent incidents of fraud, waste and abuse, and detect incidents fraud, waste, and abuse more quickly.

Implications for Biblical Integration

The Bible provides standards of truth and justice that should govern Christians in both their work and personal lives. Biblical standards provide that everyone is accountable to God for their actions and that everyone should live lives that are pleasing to God. The Bible plainly states, “You shall not lie. You shall not give false testimony against your neighbor” (Exodus 20:15, NIV). Fraud is lying and/or knowingly misrepresenting something to someone who is relying on that misrepresentation. Therefore, we know that fraud is displeasing to God and goes directly against the Ten Commandments.

God desires for everyone to follow His Word and purpose for their lives. God accomplishes His purpose for the world by providing everyone with skills, talents, and abilities to use serving others (Cawley & Snyder, 2015). When serving as an agent and/or steward it is

imperative that the agent or steward does so in a way that is pleasing to both the principal and God. This includes exhibiting a high level of integrity, using resources effectively and appropriately, following the wishes of the donors, striving to serve the mission of the organization, and appropriately guard organizational resources.

As stewards or agents of an organization, individuals must understand their purpose and manage their duties in accordance with God's desires. As stated by Van Duzer (2010), God wants organizations to serve the community and remain sustainable. Therefore, it is imperative that organizations seek to conduct operations that serve in a sustainable manner. It is the duty of nonprofit organization's management to ensure that the strategic allocation of resources is sustainable for the organization as well as fulfilling God's purpose. In order to do so, management of nonprofit organizations must exercise caution to ensure they manage the resources of the nonprofit in the most effective and efficient way, guard the organization against fraud, and reduce fraud risk. The use of financial indicators of fraud may help to evaluate fraud risk, detect incidents of fraud more quickly, and deter fraud. Once nonprofit organizations have a mechanism to utilize that can help them predict fraud, then they may be able stop the fraud before it starts. The use of indicators may also assist auditors with more timely detection of fraudulent activities.

It is important for individuals and society overall to strive to be honest and live by biblical principles in order to reap good rewards. The Bible says in Jeremiah, "Great are your purposes and mighty are your deeds. Your eyes are open to the ways of all mankind; you reward each person according to their conduct and as their deeds deserve" (Jeremiah 32:19, NIV). Each person is going to receive the punishment and/or rewards that they deserve. Whether or not a person is caught or persecuted by man, the act will not go unnoticed by God. The person will

still have to account for their sins to God. Therefore, it is important if a person wants to live a life that is pleasing to God that they strive to abide by the biblical principles.

As stated in Proverbs, "Righteousness exalts a nation, but sin condemns any people" (Proverbs 14:34, NIV). Therefore, if society does not strive to live according to biblical principles, then it may continue to see an increase in bad actions, including fraud. If society encourages good, biblical behavior, then society may reap the rewards of pleasing God.

Relationship to Field of Study

The subject of fraud and indicators of fraud risk are well aligned with the study of accounting. The purpose of accounting is to provide users of financial information, relevant, reliable financial information upon which to base decisions (Duska, Duska, & Ragatz, 2011). Fraudulent information can deceive the users of financial information and potentially cause them to make a decision that they would not have made if they had accurate information. Certified Public Accountants (CPAs) are governed by the American Institute of Certified Public Accountants (AICPA) which provides a code of ethics and standards such as the Generally Accepted Auditing Standards (GAAS). AU Section 316 is the generally accepted auditing standard that requires auditors to consider fraud in the course of their financial statement audits (American Institute of Certified Public Accountants [AICPA], 2007). This statement requires that auditors utilize necessary guidelines to detect and document risk factors pertaining to fraud. The intentions of this study are to provide additional indictors for fraud risk that may be utilized by auditors to further analyze risk factors and their ability to detect fraud during the course of their audits.

Summary of the Significance of the Study

This study was designed to address the general problem of fraud, waste, and abuse in nonprofit organizations, and the specific problem of the need for financial predictors for fraud in nonprofit organizations. There is currently a lack of research pertaining to financial predictors and/or indicators of fraud in nonprofit organizations. This study was designed to address that gap. Financial predictors of fraud would allow management of nonprofit organizations to monitor more effectively with indicators for fraud risk. It would also allow auditors, board members, regulatory agencies, donors, and other stakeholders to more effectively assess the financials of a nonprofit organization and attempt to assess the three risks: (a) goal asymmetry, (b) risk asymmetry, and (c) information asymmetry discussed by Tan and Lee (2015).

A Review of the Professional and Academic Literature

A review of professional and academic literature was conducted by the researcher to determine the available research and any gaps in research that were central to the theoretical framework of the study. This review allowed the researcher to determine gaps in the current literature that the study could address. The literature review consists of key topics and concepts related to the study and how the study will fit in the current body of literature (Creswell, 2014). The literature review is organized into nine main areas: (a) an introduction and discussion of nonprofit organizations; (b) discussion of issues and weaknesses in nonprofit organizations; (c) introduction and discussion of fraud; (d) discussion of contributing factors for fraud in nonprofit organizations; (e) discussion of the significance of fraud as a problem; (f) discussion of the significance of fraud in nonprofit organizations as a problem; (g) discussion of the role of management in combatting fraud; (h) discussion of current research and the gap in research for indicators, specifically financial, for use with the detection and prevention of fraud in nonprofit

organizations; and (i) discussion of current research and the gap in research for indicators, specifically financial, for use in the prediction of fraud in nonprofit organizations.

Nonprofit Organizations

A nonprofit organization, also known as a not-for-profit organization and/or a nonprofit, may be public or private and tax-exempt or not tax-exempt, depending on the purpose and structure of the organization. Cornell Law School's Legal Information Institute described a nonprofit organization as an organization created to serve a purpose other than generating a profit that does not distribute any of the organization's income to its members, directors, or officers ("Non-profit Organizations," n.d.). U.S. nonprofit organizations are organized under state law and if desired, must apply for tax-exempt status with the IRS. Public nonprofit organizations receive a majority of their funding from public support in the form of donations from individuals, governmental grants, and grants from private foundations (Wolf, 2018). In contrast, private nonprofit organizations have few sources of funding primarily from a single individual, family, or corporation (Wolf). The focus of this study was U.S. public, tax-exempt, Section 501(c)(3) nonprofit organizations.

Tax Exempt Organizations Under Section 501(c)(3)

A nonprofit organization, domiciled in the U.S., with a tax exemption under IRC Section 501(c)(3) is considered a tax-exempt business that serves a nonprofit purpose as defined by the IRS (2017). Examples of tax-exempt purposes for nonprofit organizations are: charitable, religious, educational, scientific, literary, and social welfare (IRS). A nonprofit organization is not allowed to distribute profits to its owners; instead, the profits must remain in the organization, where they must be used for the tax-exempt mission of the nonprofit. In addition, nonprofit organizations are not currently permitted to participate in political campaigns, operate

for a purpose other than ones that are related to its tax-exempt purpose, operate for the benefits of any private interests, be involved in any illegal activities or purpose, nor to violate public policy (Clevenger, 2009). The primary benefits of an IRS 501(c)(3) status is to be tax exempt and eligible to receive tax-deductible contributions from donors (Charity Navigator, 2018). U.S. nonprofit organizations with a 501(c)(3) status were chosen for this study due to their importance to the general public.

Accounting and Reporting Requirements

Private, tax-exempt nonprofit organizations must follow the financial accounting standards as set by the Financial Accounting Standards Board (FASB) and the AICPA *Not-for-Profit Organizations* guide (Copley, 2015). They are also required to follow any IRS filing and documentation requirements. Not all nonprofit organizations are required to have an independent audit. Due to the cost of an audit, some nonprofit organizations may choose to forgo an annual audit. However, some instances may require a nonprofit organization to receive an independent audit. Examples of those situations include contractual agreements, federal, state, or local government requests, spending of $750,000 or more of Federal funds, grant proposals, and banks (National Council of Nonprofits, 2018).

Financial reporting requirements under FASB. Nonprofit organizations are required to prepare three annual financial statements: (a) statement of financial position, (b) statement of activities, and (c) statement of cash flows (FASB, 1993). The statement of financial position and the statement of activities are prepared on the accrual basis. The purpose of the financial statements is to provide relevant information for donors, creditors, and others who provide resources to the organizations (FASB). Information presented in the financial statements should assist users with assessment of the services provided, the organization's ability to continue to

provide those services, and management's performance, including their stewardship responsibilities.

The statement of financial position reports the nonprofit organization's assets, liabilities, and net assets as of the end of the fiscal year. Assets and liabilities are reported in order of liquidity. Net assets represent the amount of assets in excess of liabilities (Copley, 2015). Prior to fiscal years beginning after December 15, 2017, net assets were classified in three categories: permanently restricted, temporarily restricted, and unrestricted net assets. This allowed users of the financial statements to see the resources that were available for use and the amounts that were restricted temporarily and permanently pertaining to their use. In an effort to simplify the net asset categories, FASB issued new rules for nonprofit organizations that reduced the net asset classifications from three categories to two for fiscal years beginning after December 15, 2017 (FASB, 2016). The new net asset categories are net assets with donor restrictions and net assets without donor restrictions (Mulherin, 2016; Tysiac, 2016). This change is intended to allow users of the financial statements to see the resources that are available for use and the amounts that are restricted pertaining to their use without the confusion of temporary or permanent restrictions (FASB).

The statement of activities reports revenues (including support), expenses, gains, losses, and reclassifications that occurred during the nonprofit organization's fiscal year (Copley, 2015). The revenues, expenses, gains, losses, and reclassifications are required to be provided for each class of net assets (FASB, 1993). Revenues, gains, and support are required to be reported by type. Expenses are required to be reported by functional classification directly on the statement, as a separate statement, or in the accompanied footnotes for either all fiscal years beginning on or before December 15, 2017 (FASB, 1993, 2016). The new FASB rules require expenses be

reported by both functional classification and the nature of the expense as well as an analysis of expenses by both functional classification and nature (Tysiac, 2016). The nonprofit organizations may choose to report on the face of the statement of activities, as a separate statement, or in the accompanied footnotes (FASB, 2016).

The statement of cash flows reports the net cash used by or provided by operating, investing, and financing during the fiscal year (Copley, 2015). The statement provides users with information pertaining to the cash receipts and payments during the period reported that could be analyzed with the statement of activities for the same period (Patton, Patton, & Ives, 2019). Prior to the new FASB rules, nonprofit organizations were allowed to utilize either the direct or the indirect method, but were required to include the indirect reconciliation when using the direct method (FASB, 2016). The new FASB rules continue to allow nonprofit organizations to utilize either the direct or the indirect method for the statement of cash flows, but removes the requirement to provide the indirect reconciliation with the direct method (FASB).

Summary. The data gathered for this study were from fiscal years beginning on or before December 15, 2017. The new FASB changes did not affect the data analysis and findings. Therefore, the format of the data utilized was consistently prepared based on the prior reporting regulations.

IRS reporting requirements. Nonprofit organizations are required to file an annual information return with the IRS. This return provides information to the IRS pertaining to the organization's activities and financials and is required to be available for public inspection. The nonprofit organizations are also required to disclose any "significant" asset diversion identified during the year (IRS, 2017). There are three reporting options for the IRS annual information return filing requirements: Form 990, Form 990-EZ, and Form 990-N depending on the nonprofit

organization's gross receipts and assets. Form 990 is required if a nonprofit organization has gross receipts of $200,000 or more or total assets of $500,000 or more. If a nonprofit organization typically has gross receipts of $50,000 or less, it is required to submit Form 990-N, which is an electronic notice. A nonprofit organization with gross receipts of more than $50,000 but less than $200,000 or total assets of less than $500,000 is required to file Form 990-EZ. However, certain nonprofit organizations, such as churches and specific church-affiliated organizations are granted an exception for the filing requirements (IRS).

Summary. The U.S. nonprofit organizations utilized for this study were all subject to the same FASB and IRS reporting requirements. Therefore, the financial information provided by the nonprofit organizations should be reported in a consistent manner with the FASB and IRS reporting requirements. Thus, the data collected by the researcher should be comparable among the sample of nonprofit organizations.

Sources of Revenues and Support

Nonprofit organizations rely on support from diverse sources (Wilsker & Young, 2010). The different forms of income and support vary depending on the purpose and mission of the nonprofit organization. Von Schnurbein and Fritz (2017) discussed four main categories of income sources: (a) contributions from private individuals and corporations, (b) governmental income from grants, contracts, and services, (c) income generated, and (d) investment income.

Public, tax-exempt nonprofit organizations depend largely on public support. They may have revenues and support in the form of cash and noncash including contributions, gifts, grants, and program revenues. The IRS requires nonprofit organizations to report revenues and support in the following categories: contributions and grants, program service revenue, investment income, and other revenue (IRS, 2017). For federal tax reporting purposes, nonprofit

organizations must report the amount received from the general public and other foundations separate from amounts received from the government. This helps users to distinguish the support received from individuals, corporations, trusts, estates, and other nongovernmental entities versus governmental units and related organizations.

Nonprofit organizations may receive program revenue, which includes income earned by the organization for providing goods and services. Other sources of income for nonprofit organizations may include investment income, royalties, rental income, gains (and losses) on investments, fundraising events, and sales of inventory. The income received each year is reported by source on the organization's annual IRS Form 990, part VIII.

Summary. It is valuable for nonprofit organization stakeholders to access this financial data in order to understand the sources of income and support for the organizations. Management utilizes this data for fiscal management and planning purposes. Donors and other stakeholders also use this data to assess the financial health and stability of the organization as well as management's performance.

Functional Expense Classifications

The three main expense functional classifications used by nonprofit organizations for both FASB and IRS requirements are program service, management and general (administrative), and fundraising. These classifications depict the primary purpose of the expenses, which helps facilitate assessment of efficiency. Program service (or program) expenses consist of expenses for activities directly related to furthering the organization's mission/purpose (IRS, 2017). For example, management and general (administrative) expenses consist of expenses related to the organization's operations and management (IRS). These

expenses are often referred to as the administrative or overhead expenses. Fundraising expenses consist of expenses related to soliciting contributions, gifts, and grants (IRS).

Summary. It is very important for organizations to report expenses in the appropriate category because those categories are often used to assess the organization's efficiency (Bourassa & Stang, 2016; Copley, 2015; Kim, 2017; Tinkelman & Donabedian, 2007). There is much public scrutiny for nonprofit organization spending. In general, it is favorable to spend the majority of a nonprofit's funds on program expenses, rather than administrative and fundraising expenses (Copley, 2015). The program expense ratio is most commonly used as a means of assessing a nonprofit organization's efficiency (Copley).

Issues and Challenges in Nonprofit Organizations

Nonprofit organizations face unique issues and challenges due to their nature and purpose. Management of nonprofit organizations face the challenge of balancing the needs of all stakeholders with the needs of the organizations. The management of nonprofit organizations also have a duty to be a good steward and agent of the resources contributed by donors. This may be difficult to assess for some nonprofit organizations due to limited information available. If donors perceive mismanagement or issues that negatively impact a nonprofit organization, then they may stop supporting the organization. This section provides a discussion of the following issues and challenges facing nonprofit organizations: (a) agency problem, (b) stewardship and nonprofit management conflicts, (c) revenue and expense management, (d) pressure to manage expense ratios, (e) weak internal controls, (f) limited data for assessment, (g) regulatory issues, and (h) donor signals.

Agency Problem

The agency problem, also referred to as the principal-agent problem, may arise when the goals and desires of the principal and agent differ and it is difficult to verify the behavior of the agent (Eisenhardt, 1989). The principal delegates control over something to the agent who is trusted to carry out duties in the best interest of the principal (Bernstein et al., 2016). In the case of nonprofit organizations, the principals are the donors, and the agents are the management of the nonprofit organizations. Management of nonprofit organizations are entrusted with resources and expected to utilize them in the manner set forth by the principals either via a contract or according to the accepted practices based on the missions of the organizations. Jensen and Meckling (1976) explained if both the principal and agent are "utility maximizers" then they may act in their own self-interest, which could result in the agent not acting in the best interest of the principal. There are many issues that may impact the agency problem including: (a) goal asymmetry, (b) risk asymmetry, (c) information asymmetry, (d) management incentives, and (e) financial management pressure.

Goal and risk asymmetry. Tan and Lee (2015) described three types of risk that should be addressed to help alleviate the agency problem: (a) goal asymmetry, (b) risk asymmetry, and (c) information asymmetry. Goal asymmetry occurs when the principal perceives that the agent's goals and interests differ from those of the principal (Tan & Lee). Risk asymmetry exists when the principal perceived that the agent's attitudes towards risk differ from those of the principal (Tan & Lee). For nonprofits, donors (i.e., principals) expect management of nonprofits (i.e., agents) to have similar goals and interests and to makes similar risk-based decisions. If donors perceive that is not the case, then it may cause them to lose trust in the nonprofit

management. The loss of trust could cause donors to decrease or stop their support of the nonprofit organizations.

Information asymmetry. The agency problem is further exacerbated due to information asymmetry (Tan & Lee, 2015). Information asymmetry can arise in nonprofits due to agents having possession of the information and the principals only having access to limited information as disseminated by the agents (Tan & Lee). Newton (2015) explained how weaker monitoring mechanisms in the nonprofit sector can cause more severe agency problems. As discussed above, the only required publicly available information is the IRS Form 990 unless there is a contractual agreement for additional information. This makes it difficult to monitor spending and to assess the overall efficiency of the nonprofit organization.

Tillotson and Tropman (2014) discussed the ability of nonprofit management to create information asymmetries for the donors and for the board of directors. The board of directors is responsible for management and oversight of CEO performance including oversight of financial management, legal responsibilities, and alignment of activities with the organization's mission. If management of nonprofit organizations are able to create additional information asymmetry perhaps through trust in their relationship with the board of directors, it could make effective monitoring by the board more difficult. If the board is not able to effectively monitor management's behavior and the performance of the organization, then it could lead to instances of problematic executive behavior, including fraud, waste, and abuse (Tillotson & Tropman).

Findings of Felix, Gaynor, and Williams (2017) indicate trust in the nonprofit setting may provide opportunities for management of nonprofit organizations to engage in opportunistic behaviors. Felix et al. discussed how a lack of adequate oversight may further exacerbate the opportunistic behaviors. A lack of monitoring and enforcement in nonprofit organizations may

contribute to a lower incentive for management to respect the trust relationship. The study found areas with higher trust were more likely to overspend on administrative costs which may indicate inefficient resource allocation (Felix et al.). Spillan and Ziemnowicz (2011) discussed five cases of fraud in nonprofit organizations where the character and competence of the CEOs and board of directors were a weakness. In these cases, the pursuit of the executive's personal gain (opportunistic behavior) overshadowed the goals of the nonprofit organizations (Spillan & Ziemnowicz). The boards were unaware of any wrongdoing perhaps due to the lack and/or inefficiency of internal controls to monitor performance.

The inability to effectively monitor performance contributes to "opportunity" in the fraud triangle. The fraud triangle is a theory created by Cressey (1973) to explain the circumstances that are conducive to the perpetration of fraud. According to the fraud triangle theory, in order to perpetrate fraud a person must have (a) pressure to perpetrate fraud, (b) opportunity to perpetrate fraud, and (c) ability to rationalize fraud (Cressey). Opportunity to perpetrate fraud is the means in which the perpetrator is able to commit and conceal the fraud. Dellaportas (2013) described some perceived opportunities to commit and conceal fraud such as lack of internal controls, ability to circumvent internal controls, inability to assess performance, and information asymmetry due to lack of access. Ndofor, Wesley, and Priem (2015) explained opportunities for fraud might arise due to information asymmetries, referred to as "lack of transparency" between upper management and shareholders (p. 1774). In the case of nonprofit organizations, the information asymmetry or lack of transparency can make it difficult to monitor and hold management accountable, which contributes to the opportunity for management to commit and conceal fraud.

Dellaportas (2013) discussed how a perpetrator's privileged position could create an opportunity and capacity to perpetrate fraud. Lenz and Graycar (2016) discussed a fraud case where the corporate governance had a high level of trust in the offender and as such did not demand accountability. They explained that the pre-trial judge considered this lack of oversight combined with the high level of trust as a "golden opportunity" for the perpetrator to commit and conceal the fraud (Lenz & Graycar). This highlights the importance of adequate information sharing and oversight of the management of nonprofits.

De Armond and Zack (2017) discussed fraud risk in nonprofit organizations and steps that can be taken to reduce the risk. One way to combat fraud, they explained, is to have more guidance and oversight from leaders, including a board of directors, of nonprofit organizations (De Armond & Zack). More involvement will help leaders, including board members, to provide appropriate oversight and increased communication. If the nonprofit organization obtains an audit, the board should have open discussions with external auditors about any internal control weaknesses and any opportunities for management override of controls (De Armond & Zack). Another step to help reduce the opportunity for fraud would be to have an audit committee to provide further financial oversight (Morales & Carabello, 2014).

Management incentives and pressures. The agency problem poses a risk that people could behave in an opportunistic way to benefit themselves at the expense of the principal (Dion, 2016). Some examples of this would be compensation and bonus incentives, contracts, and other business relationships. Management incentives are very important to the agency problem and fraud risk. Financial management pressures and unethical practices could lead one to perpetrate fraud while acting in self-interest. As discussed by Dion, management may try to obtain their annual bonus at any cost, including unethical decisions made in self-interest. One example is

negotiating a business contract that has short-term benefits, but is not favorable long-term to the nonprofit organization in order to obtain favorable results and receive a bonus. Therefore, it is important to design management incentives that are tied closely to the mission and goals of the nonprofit organization in an effort to align the agent's interests with that of the principal. This may help to alleviate the agency problem and decrease fraud risk.

Stewardship and Nonprofit Management

As previously discussed, management of nonprofit organizations are responsible for the appropriate use of resources to accomplish the organizations' missions. Donors trust that management will appropriately utilize resources according to the best interests of the agents/stakeholders rather than their own self-interests. Donaldson and Davis (1991) explained their theory that management will act in the best interest of the stakeholders and agents because of their desire to be good stewards of the resources entrusted to them and to do their job well. This is referred to as the stewardship theory and implies that management is committed to the mission of the organization above his or her own self-interest. Davis et al. (1997) discussed how principals might evolve to and from agency and stewardship relationships over time as their interest alignment changes.

Summary. In nonprofit organizations it is imperative that management act in the best interest of the organization and its stakeholders. According to the stewardship theory, management will be committed to the mission of the organization above their own self-interest in order to do their job well. However, management may not always act in the best interest of the organization rather than their own self-interest. In order to instill and foster a stewardship relationship for management of nonprofit organizations, steps should be taken to tie management

compensation and rewards to the desired behavior. Ensuring appropriate alignment of management incentives and organizational objectives may help to reduce fraud risk.

Revenue and Expense Management

Management of nonprofit organizations are responsible for management of the organizational resources in a manner that is sustainable and achieves the missions of the organizations. They must focus on both financial stability and capacity (for growth; Von Schnurbein & Fritz, 2017). Financial management and planning for nonprofit organizations may include analysis and management of revenues and expenses. There is a common misconception that nonprofit organizations are not allowed to, nor should, generate a surplus of revenues and support over expenses. However, there are many reasons for nonprofits organizations to do so including: the need for working capital, reserves for long-term planning (including expansion and growth), maintenance of assets, retirement of debt, and long-term viability (Mayer, Wang, Egginton, & Flint, 2014). Donations may also be less predictable, so management may desire to strategically save funds in years of large donations in order to "smooth revenues" (Duquette, 2017).

Duquette (2017) discussed the challenges revenue volatility can create for nonprofit organizations, particularly their sustainability. Donations may be dependent upon the economy, popular issues, critical issues, and other areas. Grants may be short-term and dependent on certain outcomes. If nonprofit organizations do not have consistent and sufficient funding, they may not survive (Kim, 2017). Chang and Tuckman (1994) explained how vital it is for nonprofits to diversify their revenues among contributions/donations, program revenues, and other sources to help mitigate volatility. However, it may be difficult for nonprofit organizations to diversify their revenue sources because they may be specific to their sector and out of their

control (Wicker, Longley, & Breuer, 2015). For example, the nonprofit organization may not have the ability to generate program revenues nor be eligible for grants due to the nature of the organization. Organizations that are reliant on mostly donations have greater revenue volatility (Carroll & Stater, 2009). Therefore, reputation and appropriate management of donor monies is even more vital to these organizations, and steps should be taken to ensure appropriate management of the resources.

Summary. Nonprofit organizations must generate adequate revenues and control expenses in order to maintain sufficient current and future cash flows for continued operations. Due to the reliance on public support, it is imperative that nonprofit organizations are good stewards of their resources. If the organization's reputation is damaged due to a case of fraud, it may further damage the organization by causing donors to decrease or stop their funding.

Pressure to Manage Expense Ratios

Nonprofit organizations face pressures and incentives to meet financial performance levels for public perception including governing boards, donors, governmental agencies, and internal management (Bradach, Tierney, & Stone, 2008). One of the most common financial efficiency measures is the program expense ratio. This ratio provides the proportion of expenses that are spent directly on the programs of the nonprofit organization's mission and is often used by watchdog agencies to assess nonprofit organizations. Chikoto and Neely (2014) discussed the tendency of nonprofit watchdogs to perceive high overhead costs and non-program expenses as indicators of inefficiency and waste. These perceived inefficiencies have been associated with reduced donor confidence and support (Greenlee & Brown 1999; Jacobs & Marudas, 2009; Mankaney & Tinkleman, 2007). Kim (2017) explained donors generally prefer lower overhead expenses. Previous studies have demonstrated nonprofit organizations considered to be more

efficient receive larger contributions (Greenlee & Brown, 1999; Jacobs & Marudas, 2009; Mankaney & Tinkleman, 2007; Marudas, 2004; Tinkleman, 1998; Trussel & Parsons, 2008). Thus, resulting in pressure for management of nonprofit organizations to manage overhead expenses and expense ratios in order to retain donor support and remain sustainable.

The intense competition among nonprofit organizations for resources makes expense management very important. However, this focus can lead to management of nonprofit organizations manipulating the numbers to appear as favorable as possible (Garven et al., 2016). Wing, Gordon, Hager, Pollack, and Rooney (2006) explained that functional expense reporting represents a ticking time bomb due to problematic accounting methods that may misrepresent the amounts reported for functional expenses. Nonprofit organizations may achieve more favorable financial indicators by misreporting or misclassifying expenses (Garven et al.). Nonprofit organizations may attempt to increase their program expense ratio by reporting zero fundraising and/or administrative expenses (Yetman & Yetman, 2012). Krishnan et al. (2006) found evidence of intentional misreporting of fundraising expenses in the nonprofit organizations studied who reported zero fundraising expenses. Results also demonstrated a positive association of expense misreporting to managerial incentive measures (Krishnan et al.).

Lecy and Searing (2015) explained that the intense pressure to manage the program expense ratio may cause a practice of cost-cutting which could in turn harm the organization. They further explain how this practice of cost-cutting is considered a starvation cycle to reduce overhead expenses in order to gain a competitive advantage (Lecy & Searing). The starvation cycle arises from donor expectations becoming more unrealistic over time which in turn cause the nonprofit organization to continually cut overhead expenses until the organization is not able to function appropriately (Lecy & Searing).

Summary. Management may have pressure to manage expense ratios in order to remain favorable under public scrutiny. This project provides analyses of expense ratios and reported instances of fraud. The researcher investigated any association with expense ratios and reported fraud in order to better address fraud risk assessment and the prediction of fraud.

Weak Internal Controls

As previously discussed, internal control is a process utilized to provide "reasonable assurance" that objectives related to the efficiency and effectiveness of operations, reliability of financial reporting, and compliance with applicable regulations are met (AICPA, 2013). Internal controls are the specific processes in place related to functions in an organization to help ensure the organization's objectives are met. Mangala and Kumari (2017) described the purpose of internal controls as to secure the organization's assets, improve the reliability of accounting records, and to prevent and detect fraud.

Due to their nature, nonprofit organizations generally have weaker internal controls as compared to for-profit organizations (Dzomire, 2014; Greenlee et al., 2007; Spillan & Ziemnowicz, 2011). Saat, Mohamed, Zakaria, and Omar (2013) discussed how nonprofit organizations are focused more on providing their services than on an internal control system. Nonprofit organizations may have limited resources available which they may choose to utilize for their programs rather than to address internal controls (Marks & Ugo, 2012).

Nonprofit organizations are often built on trust and rely on volunteers to operate. Volunteers may lack knowledge and experience (Marks & Ugo, 2012). This may lead to a high turnover rate which can hinder the ability to adequately train volunteers and may make it difficult to effectively implement and maintain internal controls. The management structure of nonprofit organizations may also contribute to weaker internal controls because management

generally consists of one individual who may lack the expertise needed for effective financial management (Snyder, Andersen, & Zuber, 2017). Weaker internal controls increases fraud risk for nonprofit organizations.

Limited Data for Assessment

The public's ability to access relevant information for nonprofit organizations is key to transparency (Hilton, 2016). Donors, volunteers, management, governing board members, and other external parties utilize the financial data of nonprofit organizations to make decisions. However, extensive financial information may not always be available. Nonprofits are only required to make their IRS Form 990s available to the public (Clevenger, 2009). They are not required to make their audited financial statements available to the public. This may be problematic because users of nonprofit organization data have limited information upon which to base their decisions and evaluations. The audit report could help users to assess the material accuracy of the nonprofits' audited financial statements, which they could then use to compare to the information reported on the Form 990. However, the audit report may not include information pertaining to fraud, waste, and abuse because those activities may not have been detected during the audit.

Watchdog organizations such as Charity Navigator have compiled information from the nonprofits' IRS Form 990s and information publicly available on the organizations' websites to assess their financial health, accountability, and transparency (Cnaan, Jones, Dickin, & Salomon, 2011). Much of the data are based on financial metrics, spending ratios and information pertaining to the organizations' board, policies, transparency pertaining to loans, executive compensation, and audited financial statements. The information compiled by Charity Navigator is then utilized to calculate ratings for the nonprofit organizations. These ratings then allow

users to compare the nonprofits with other charities. Charity Navigator (2017) claimed the ratings allow donors to contribute with more confidence and imply that donors who support the highly rated charities are supporting more financially healthy, accountable, and transparent organizations. The information provided by the watchdog organizations is very valuable and useful. However, it may not guarantee users can avoid contributing to nonprofits that may be diverting or misusing funds for a purpose other than its mission because instances could exist that may not have been discovered yet.

Regulatory Issues

Nonprofit organizations are regulated primarily by the IRS requirements (including Form 990) and nonprofit laws in each state of incorporation (Petrovits et al., 2011). The growing number of nonprofit organizations has made it difficult for the regulatory oversight to keep up (Morrison, 2016). Government agencies are not able to effectively regulate the nonprofit sector due to their limited oversight and enforcement capabilities (Lloyd, 2005; Morrison). Self-regulation has been found in some countries to be the best way to provide for more transparency and accountability in the nonprofit sector (Similon, 2015). However, self-regulation is also hard to assess and enforce, which makes oversight of the nonprofit sector a public concern (Morrison). The development of fraud risk assessment and prediction tools specifically for the nonprofit sector may

Donor Signals

Donors provide an important source of capital for nonprofit organizations. Therefore, anything that damages a nonprofit organization's reputation could result in donor mistrust and reduced contributions. Hou, Zhang, and King (2017) found trust damage impacted individual donor satisfaction which in turn impacted future giving. Decisions to contribute to nonprofit

organizations vary for donors. Donors' perceived benefits and perceived risks can influence their decision to give to a nonprofit organization (Hou et al.). It is important for nonprofit organizations to ensure donors are able to perceive benefits from their contributions, versus risk that the nonprofit organization would bring negative value (Hou et al.). This means that any accusations and/or instances of fraud, waste, or abuse could damage a nonprofit organization's reputation and cause donations to substantially decrease, threatening survival.

Fraud

Fraud is defined by Cornell Law School's Legal Information Institute as "deliberately deceiving someone else with the intent of causing damage" ("Fraud," n.d.). The AICPA, Institute of Internal Auditors (IIA), and ACFE define fraud as "any intentional act or omission designed to deceive others, resulting in the victim suffering a loss and/or the perpetrator achieving a gain," (Crumbley et al., 2017, pp. 3-4). Rufus, Miller, and Hahn (2015) explained the commonality among definitions of fraud is that fraud is a "crime of intent" (p. 145). According to Wells (2014), there are four legal elements of fraud. The four legal elements of fraud are: (a) intentionally making a false representation or omission of a material fact, (b) knowledge that the statement was false, (c) reliance on the statement by the victim, and (d) damages or losses suffered by the victim (Wells).

Types of Fraud

The ACFE (2018) describes three main types of fraud, (a) corruption, (b) asset misappropriation, and (c) financial statement fraud. Corruption is the wrongful use of one's influence in business transactions for their own personal benefit (Saksena, 2010). Asset misappropriation is the theft, waste, or abuse of organizational assets. Asset misappropriation is the most common type of fraud (ACFE) and includes theft of cash or inventory and other assets,

skimming revenues, fraudulent disbursements, and embezzlement (Skalak, Golden, Clayton, & Pill, 2011). Financial statement fraud is the manipulation, falsification, or alteration of accounting records. It includes any intentional omission or misrepresentation in the financial statements of data and/or disclosures and any intentional misapplication of accounting principles to misrepresent financial statements and deceive users of that information (Skalak et al.). According to the ACFE, financial statement frauds are the least common, but most costly.

Fraud in Nonprofit Organizations

Archambeault et al. (2015) classified nonprofit organization frauds in two main categories: (a) frauds where the nonprofit organizations victimized the public and (b) frauds where an individual within the nonprofit organizations victimized the organization. Frauds have also been classified as against the nonprofit organization (i.e., asset theft) and those conducted by the organization (i.e., misreporting of financial information; Greenlee et al., 2007). For purposes of this discussion, frauds were classified as internal fraud and financial reporting fraud.

Internal fraud. The term internal fraud is used to describe frauds where an individual(s) within the organization victimized the organization. The ACFE (2018) found the most common frauds in nonprofit organizations to be internal frauds, including check tampering, billing fraud, expense reimbursement fraud, and corruption/abuses of one's position. Check tampering includes altering the payee and/or amounts of checks. Billing fraud may include fictitious invoices from fictitious vendors and/or for fictitious goods or services. Expense reimbursement fraud may occur when an employee inflates expenses and submits false expense claims (Grippo, 2012). Corruption or abuse of one's power could give someone the opportunity to devise transactions for personal benefit rather than for the good of the organization, particularly in cases of conflict of interest.

Instances of skimmed funds, credit card abuse (for personal purchases), and the theft of cash and inventory are also issues in nonprofit organizations (Dzomira, 2014; Zack & De Armond, 2015). Instances of presigning checks due to a limited staff provides opportunity for theft and misuse of funds (Baker, 2016). The main revenue stream in nonprofit organizations is contributions. Contributions are non-reciprocal, which means there is no exchange of goods or services, thereby making any cash received a target for theft because the revenue is difficult to control and verify (Baker). Skimmed funds occur when a person collecting the money is able to steal cash and conceal the theft because the transaction is not recorded in the accounting records. Since there is no record of the transaction, there may not be a way to know that the money was ever there, nor that it was subsequently stolen.

Financial reporting fraud. The term financial reporting fraud was used to describe fraud conducted by the nonprofit organization to misreport financial information. Pressure to achieve financial targets is one of the top motivations for financial statement fraud (ACFE, 2018). As discussed previously, nonprofit organizations face pressures and incentives to meet financial performance levels for public perception, including governing boards, donors, governmental agencies, and internal management (Bradach et al., 2008). Sometimes nonprofit organizations may misclassify expenses as program expenses when they should have been reported as fundraising or administrative in order to falsely inflate their program expense ratio (Zack & De Armond, 2015). They may also inflate the fair value of goods and services received and incorrectly gross up fundraising activities to attempt to deceive the users of their financial data (Maguire, 2017; Zack & De Armond).

Contributing Factors for Fraud in Nonprofit Organizations

The three factors in the fraud triangle are: (a) motive, (b) opportunity, and (c) rationalization, also described as lack of integrity (Cressey, 1973). Motive and rationalization are both related to the perpetrator. A perpetrator has motive to perpetrate the fraud and possesses a lack of integrity that would allow them to rationalize the act committed. According to Cressey, if the three factors are present in an organization, it is likely that fraud will occur, but the absence of these factors does not mean that fraud is also absent (Crumbley et al., 2017).

As explained above, organizations have limited control over the motive and rationalization of fraud perpetrators. However, they may be able to control the opportunity of others to perpetrate fraud with an effective system of internal controls, appropriate staffing, and oversight. When evaluating opportunity for fraud in nonprofit organizations, there are many aspects that may make them more vulnerable to fraud such as (a) a culture of trust, (b) weaknesses in board oversight, (c) weaknesses in management, (d) inadequate knowledge and training of staff, (e) weak internal controls, and (f) risk of reputation damage.

Culture of trust. Research has demonstrated nonprofit organizations are more vulnerable to fraud due to the nature of their mission and culture of trust (Archambeault et al., 2015; Greenlee et al., 2007; Marks & Ugo, 2012). A culture of trust makes nonprofit organizations more vulnerable to fraud because it may be assumed that everyone is there to help accomplish the nonprofit mission and would not perpetrate fraud (Snyder et al., 2017). However, countless news articles demonstrate how often that trust is taken advantage of in nonprofit organizations (Associated Press, 2017; Harris, Petrovits, & Yetman, 2017; Kastner, 2018; McSwain, Wukich, & McSwain, 2015; Office of the Inspector General Social Security Administration, 2018; Simton, 2018; Smith, 2017).

Weaknesses in board oversight. Nonprofit organizations tend to rely on culture of trust and as a result may not properly invest in good governance (Archambeault et al., 2015; Baker, 2016; Greenlee et al., 2007). Governance of nonprofit organizations consists of the board of directors and the executive management. Board members of nonprofit organizations are often volunteers who lack the adequate financial management expertise needed to provide adequate oversight (Burks, 2015; Snyder et al., 2017). Weak corporate governance provides opportunity for management to perpetrate and conceal fraud (Brazel, Jones, & Zimbelman, 2009).

Weaknesses in management. In addition to weaknesses in board governance, daily financial management may be under the control of one person without appropriate controls and oversight (Burks, 2015; Gallagher & Radcliffe, 2002). Executive control without appropriate controls and oversight creates an element of opportunity for fraud and errors to occur. This is evidenced by frauds perpetrated by those in management roles of nonprofit organizations. Burks found that the nonprofit error rate for financial statements was almost twice as high as similar sized for-profit corporations, demonstrating the need for improved skills to provide better financial management.

Inadequate staff knowledge and training. Often the volunteers that nonprofit organizations rely on may lack knowledge, formal training, and experience to effectively conduct their duties (Marks & Ugo, 2012). Lack of knowledge, training, and experience can increase the risk of errors, fraud, waste, and abuse. Saat et al. (2013) found nonprofit organizations lacked skilled accounting staff and had high staff turnover. Turnover can limit their ability to adequately train volunteers and may make it difficult to effectively implement and maintain internal controls.

Weak internal controls. An effective system of internal controls helps organizations to operate efficiently, safeguard assets, and comply with laws, regulations, and contracts (Peltier-Rivest & Lanoue, 2015). Implementation of effective internal controls helps organizations achieve their objectives and reduce the risk of fraud, mismanagement, and error by enhancing oversight and decreasing misconduct (Peltier-Rivest & Lanoue). Internal controls are important to an organization because they help to reduce the opportunity one has to perpetrate fraud without being detected. The ACFE found that internal control weaknesses were responsible for approximately 50% of the frauds reported (2018). Therefore, a lack of or weak internal controls may be a significant contributing factor for fraud (Siregar & Tenoyo, 2015; Zakaria, Nawawi, & Salin, 2016). Donelson, Ege, and McInnis (2017) found a strong association between material internal control weaknesses and future fraud discovery. They explained the link could be attributable to weak internal controls that give management greater opportunity to commit fraud or signals a management characteristic that is more susceptible to fraud (Donelson et al.).

Nonprofit organizations often have weaker internal controls than for-profit organizations (Greenlee et al., 2007; Spillan & Ziemnowicz, 2011). Due to limited resources, nonprofit organizations often do not have the resources needed to have formal internal controls in place, including adequate segregation of duties and approvals (Felix et al., 2017). Segregation of duties is an internal control designed to help prevent one person from having the opportunity to perpetrate fraud or an error and not be detected by separating the functions of authorization, record keeping, custody of assets, and reconciliation (Louwers, Ramsay, Sinason, Strawser, & Thibodeau, 2015). Nonprofit organizations may not have the ability to hire an adequate number of staff to allow for appropriate segregation of duties to effectively deter fraud. If staff and

management do not have the knowledge, experience, and training needed, then they may not be able to provide the duties needed for effective oversight designed in the internal controls.

As explained above, weak internal control systems create an opportunity for fraud and reduce the risk of being detected and prevented (Donelson et al., 2017; Lokanan, 2014; Skaife, Veenman, & Wangerin, 2013; Trompeter, Carpenter, Desai, Jones, & Riley, 2013). Due to weaker internal controls, nonprofit organizations have an increased risk of fraud and errors (Dzomira, 2014). Burks (2015) found public charities reported errors at a significantly higher rate than that reported by U.S. publicly traded companies. The study indicated a strong positive association between the error rate and internal control deficiencies (Burks).

Reputation risk. Nonprofit organizations are highly susceptible to the impact of negative publicity. This makes them more reluctant to report and prosecute fraud when it occurs in an effort to reduce further damages. The threat of prosecution is typically a deterrent to potential fraudsters. However, if a perpetrator can find organizations such as nonprofits and churches that are less likely to detect and prosecute fraud, then they may be able to perpetrate fraud with limited or no negative consequences. The reduced likelihood of reporting and prosecuting fraud increases the vulnerability of nonprofit organizations (Baker, 2016).

Significance of Fraud as a Problem

Numerous studies have indicated an increase in the frequency and severity of fraud in organizations of all sizes across all industries. The economic impact of the losses from fraud has been significant (Free, 2015). Mangala and Kumari (2017) described fraud as one of the most expensive crimes in the corporate world. Fraud causes losses for the organization, stakeholders, and can even impact the market. In 2018, the ACFE discussed 2,690 cases of occupational fraud that occurred in over 125 countries. It is estimated that the average organization loses five

percent (5%) of its annual revenues for a median loss of $130,000 (ACFE). The median loss can have a disastrous impact on small firms (Mangala & Kumari). The five percent (5%) loss, if applied to the 2013 estimated Gross World Product of $79.6 trillion, would result in a projected loss of almost $4 trillion (ACFE). Fraudulent financial reporting cases investigated by the United States Securities and Exchange Commission increased from 294 in the 1987-1997 report to 347 in the 1998-2007 report (Beasley, Carcello, Hermanson, & Neal, 2010). The median amount of the frauds increased from $4.1 million in the 1987-1997 report to $12.05 million in the 1998-2007 report (Beasley et al.).

Significance of Fraud as a Problem in Nonprofit Organizations

Nonprofit organizations are increasingly becoming a large force in the United States economy, employing more than 10% of the workforce, contributing an estimated $887.3 billion to the U.S. economy, and administering contributions over $335 billion in 2012 (Snyder et al., 2017). The economic impact and services provided by nonprofit organizations are vital to society. Instances of fraud threaten the existence of nonprofit organizations and their ability to carry out their missions (Archambeault & Webber, 2018; Bradley, 2015).

Stephens and Flaherty (2013) explained that one sixth of all major embezzlements occur in the nonprofit industry. Nonprofit organizations face the risk of fraud perpetrated by volunteers and management (Groble & Brudney, 2016). Fraud can occur in small organizations as well as large well-known charities. Examples of embezzlement or internal fraud have been found in youth league organizations (Gordon, 2014; Smith, 2017; Wojcik, 2011), charities supporting veterans and military families (Associated Press, 2017; Ross, Hill, & Mosk, 2013; Simton, 2018; U.S. Department of Justice, 2016), churches (McSwain et al., 2015), and organizations providing assistance to refugees (Osher, 2017) and victims of violence (Office of

the Inspector General Social Security Administration, 2018), and animal rescue organizations (Kastner, 2018). Some larger nonprofit frauds have been: (a) $43 million of improper payments to grantees at The Global Fund, (b) $26 million endowment write-off at New York State University by a fraudulent investment manager, (c) $1.5 million employee theft at Memorial Sloan-Kettering Cancer Center, and (d) $1.2 million embezzlement from United Way by the CEO, CFO, and President (Harris et al., 2017). Losses from fraud in nonprofit organizations inhibit their ability to provide services by taking resources away from equipment, uniforms, facilities, travel expenses, support services, and other areas (Groble & Brudney). The damage and impact of these losses increases, the longer a fraud goes undetected (ACFE, 2016).

A nonprofit organization may suffer monetary losses from fraud, damage to its reputation, and decreased donations, which could affect the ability of the organization to advance its mission (Archambeault & Webber, 2018; Adena, 2016; Kim, 2017; Peltier-Rivest & Lanoue, 2015). Losses suffered due to fraud reduce the resources available to serve the mission of the organization (Greenlee et al., 2007). For example, patients seeking mental health services in Arkansas may have difficulty accessing them due to a $2 million fraud (e.g., illegal billings, kickbacks, and bribes) perpetrated by executives of a nonprofit mental health agency (Urbach, 2018). Due to the discovery of this fraud, Medicaid payments to this provider (47 locations in Arkansas) halted, which have significantly impacted people with Medicaid's ability to get the mental health they need (Urbach).

According to the ACFE (2018), nonprofit organizations accounted for approximately nine percent (9%) of the fraud reported and incurred a median loss of $75,000. Another study conducted by the Washington Post found that over 1,000 nonprofits who filed a Form 990 with the IRS between 2008 and 2012 checked the box on their Form 990s indicating a significant

diversion of assets (Stephens & Flaherty, 2013). Stephens and Flaherty further explained that the study revealed 285 diversions totaling approximately $170 million in losses were reported in 2009. Nonprofit organizations are required to report incidents of diversions of assets on IRS Form 990 when they exceed the lessor of $250,000, five percent (5%) of the organization's gross receipts for the tax year, or five percent (5%) of the organization's total assets at the end of the tax year (IRS, 2016). Therefore, incidents falling under these thresholds are not required to be reported, leading one to wonder how many incidents fell below the reporting threshold and as such were not reported.

According to Marquet's (2014) report on active cases of embezzlement in the United States, 7.8% of the 554 cases studied were nonprofit organizations who reported a total gross loss of $28,977,000 for an average loss of $673,884. A total gross loss of $28,977,000 in 2013 is an alarming amount for nonprofit organizations, indicating over $28 million was diverted and not utilized for the missions of the victim organizations. Perhaps what is even more alarming is that these studies do not represent all the fraud that occurred. Many incidents of fraud go undetected and even when detected, nonprofit organizations often choose not to report incidents of fraud for fear of negative publicity and negative impact on fundraising (Archambeault et al., 2015; Frazier, 2009).

Availability of public oversight provided by watchdog organizations increases the pressure for nonprofit organizations to report information users will find favorable. This increases the likelihood these organizations may misreport expenses in order to remain favorable in the public eye (Garven et al., 2016). Despite existing state and federal guidelines, and in some cases even audits, nonprofit organizations are able to distort commonly used accounting and financial reporting data particularly pertaining to program and fundraising expenses (Neely,

2011). As discussed by Tinkleman (2009), the ability of nonprofit organizations to distort accounting and financial reporting data through management accounting decisions increases pressure on other organizations to also adopt more favorable accounting methods to remain comparable and on fair playing ground. This perception of unreasonable expectations may increase questionable financial reporting data which may distort information donors use to make decisions (Tinkleman).

Sustainability of nonprofit organizations could be threatened by allegations of fraud, waste, and/or abuse of donor monies. As indicated in the interviews conducted by Szper and Prakash (2011), donors are likely to assess the trustworthiness and effectiveness of nonprofits on more than the financial indicators and ratings, but also awareness, popularity, and reputation of organizations. Instances of fraud pose a serious risk to a nonprofit organization's reputation which can impact the nonprofit organization's ability to survive (Archambeault & Webber, 2018). Instances of fraud can decrease donors' trust in the organization which may cause them not to contribute to the organization (Petrovits et al., 2011). Bradley (2015) discussed how other charities and society can also suffer from the residual effect of decreased trust in the whole nonprofit industry. The existence of nonprofit organizations and the services they provide is vital to society. The services provided by nonprofit organizations are in high demand. According to the State of the Nonprofit Sector Survey, demand for nonprofit services is rising faster than their ability to meet it (Nonprofit Finance Fund, 2018). Gose (2018) discussed the shortage of nonprofits needed to meet demand and how it causes those who rely on the services provided by nonprofit organizations to do without.

According to the Giving USA (2018), in 2017, charitable giving exceeded $400 billion for the first time in the United States. The total giving calculated in 2017 was $410.02 billion;

$286.65 billion from individuals, $66.90 billion from foundations, $35.70 billion from bequests, and $20.77 billion from corporations (Giving USA). See figure 3 below for a breakdown of donations by category from Giving USA. As demonstrated by the high demand, it is vital for the nonprofit sector to exist and thrive in order to meet the needs of communities. Instances of fraud could cause nonprofit organizations to lose funding (from contributions) as discussed in more detail below. Without sufficient and consistent funding, they may be forced to limit programs or shut down (Kim, 2017). Therefore, it is vital for nonprofit organizations to take proper cautions to prevent and deter fraud. In doing so, appropriate accountability and assessment measures must be in place for management, directors, auditors, and donors to evaluate.

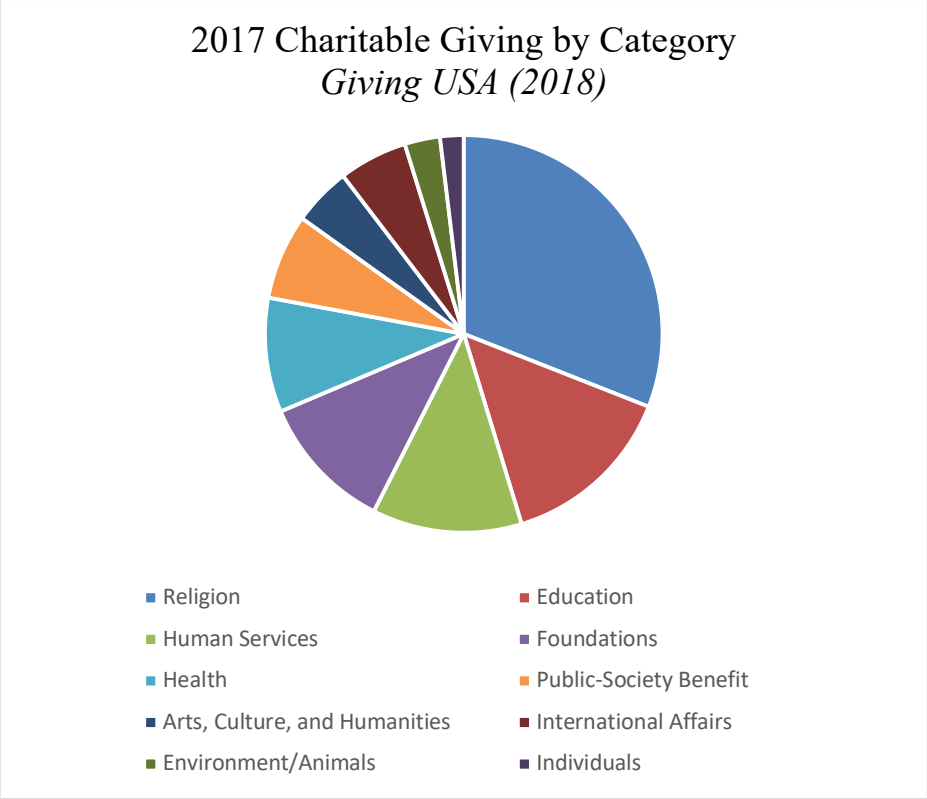

Figure 3. 2017 Charitable Giving by Category (Giving USA, 2018).

Summary. Nonprofit organizations are an important part of the U.S. economy. They not only provide important services for society, but also provide employment opportunities.

Instances of fraud threaten the existence of nonprofits by diverting necessary resources away from the mission of organizations and damaging donor trust. The nature of nonprofit organizations makes them more vulnerable to fraud. Often frauds are not discovered until damage has already occurred. Therefore, it is important to develop better mechanisms to address fraud risk and tools to predict fraud. This will allow organizations to address fraud risk more timely and potentially prevent or decrease damages.

Impact of Donor Mistrust on the Survival of Nonprofit Organizations

In addition to monetary losses, publicized instances of fraud, waste, and abuse can cause irreversible reputation damage (Peltier-Rivest & Lanoue, 2015). Peltier-Rivest and Lanoue discussed how the public often perceives victim organizations as negligent in regard to safeguarding their assets. Hou et al. (2017) examined the effect of trust damage on the giving behavior of individual donors. Findings indicated trust damage contributes to a decrease in perceived benefit and increase in perceived risk of contributing to a nonprofit organization (Hou et al.). The perceived benefit and risk influence a donor's decision to contribute (Hou et al.).

Domanski (2016) discussed the importance of reputation risk for nonprofit organizations. Reputation risk would be impacted by any events that could lead to bad publicity for the organization. The highest level of critical impact identified was the risk of financial fraud (30.6% major impact, 22.1% critical impact) and funds used against the intent of the donor/grantor (30.2% major impact, 23% critical impact; Domanski). The highest categories for external risk were low recognition and weak reputation of organization (40.0% major impact, 2.6% critical impact) and unfavorable publicity (44.3% major impact, 8.9% critical impact). Loss of reputation due to an unethical conduct was also considered an important risk (46.4% major impact, 6.8% critical impact).

Reliance on public support makes donor trust and perception ever more important to the survival of nonprofit organizations. When donors lose trust in nonprofit organizations, they are less likely to contribute to those organizations (Adena, 2016). Jordan, Upright, and Tice-Owens (2016) discussed the importance of crisis management and image restoration strategies with United Way fraud case as an example. Archambeault and Webber (2018) examined the impact of fraud on a nonprofit organization's survival. The findings indicated over one fourth of the 115 nonprofit organizations studied who experienced fraud did not survive within three years after the publicized fraud (Archambeault & Webber). The failure rate was significantly higher than the typical survival rate of nonprofit organizations (Archambeault & Webber). These findings confirm the importance of fraud prevention and early detection to avoid and mitigate the negative impact and reputation risk caused by instances of fraud, waste, and abuse.

Management Role in Combatting Fraud

The main governance structure in nonprofit organizations is the board of directors. It is the board of directors' responsibility to determine the strategic direction of the organization and to establish policies and procedures including internal control and oversight and performance measures (Spillan & Ziemnowicz, 2011). Zhu, Wang, and Bart (2016) found strategic involvement of the board of directors improved the overall performance of the organization. In order for board members to be effective, they must have knowledge and expertise that allow them to be engaged in the financial processes, including review and analysis of financial information (Wellar, 2018). Spillan and Ziemnowicz discussed some instances where the board of directors failed to detect unethical and imprudent conduct due to inadequate oversight and a lack of character and competence among staff and board members.

Executive directors (e.g., CEOs) share in responsibility to reduce fraud risk in nonprofit organizations. It is important for them to be cognizant of organizational objectives as well as implement effective financial controls (Gallagher & Radcliffe, 2002). It is the responsibility of the director to manage the day-to-day operations, obtain organizational objectives, adhere to policies and procedures, and provide oversight of all functions. They should ensure safeguarding and appropriate reporting of items such as: cash receipts and disbursements, petty cash transactions, payroll transactions, fixed asset transactions, and compliance of any applicable restrictions for the use of funds. Ultimately, it is the job of the director/CEO to conduct his/her duties ethically and prudently to meet the organizational objectives (Spillan & Ziemnowicz, 2011).

Summary. Management has a major role for combatting fraud in nonprofit organizations. Management is in the best position to perform risk assessments and instill appropriate policies and procedures. The board of directors also has an important role for combatting fraud through their review and oversight. This project is designed to help provide mechanisms for management and board members to assess fraud risk and prediction of fraud through the use of readily available financial data.

Financial Indicators for the Detection and Prevention of Fraud

A review of the current academic literature was conducted to gain an understanding of the use of financial indicators for the detection and prevention of fraud. The examination of financial indicators pertaining to fraud is widely studied. However, the majority of the research examined has focused on data analysis of for-profit organizations. Much research is based on the utilization of financial data and ratios to construct fraud risk model (Huang, Lin, Chui, & Yen, 2017). There was limited research available pertaining to the detection of fraud in nonprofit

organizations using financial indicators specific to nonprofit organizations (Trussel, 2003). A discussion of (a) the Beneish Model, (b) Benford's Law, (c) Huang, Tsiah, and Lin (2014), and (d) Trussel (2003) is provided below.

Beneish Model

Beneish (1999) developed a mathematical model using eight variables as an indicator of financial statement distortions that could result from manipulations. The eight variables are: (a) days' sales in receivables index; (b) gross margin index; (c) asset quality index; (d) sales growth index; (e) depreciation index; (f) sales, general, and administrative expenses index; (g) leverage index; and (h) total accruals to total assets. Beneish tested the model on 74 public companies that fraudulently manipulated earnings and found the model was able to identify approximately half of the companies involved in earnings manipulation before the date of public discovery. This model is limited for use of public companies and for detection of overstatement of earnings, not understatements. Oltean (2016) demonstrated the proposed use of an econometric model utilizing the Beneish model to identify companies with fraud risk in digital analysis, and data mining used by auditors to determine audit risk and samples. Repousis (2016) studied the use of the Beneish model in detection of corporate financial statement fraud in Greece.

Benford's Law

Benford's law analysis is used in the identification of fraud using financial metrics. Benford (1999) discovered that beginning digits in naturally occurring numbers are not random, but instead follow a predictable pattern based on the formula he developed. Benford developed a probability distribution for the leading digit of naturally occurring numbers that is commonly used in auditing and fraud detection literature (Coman, Horga, Danila, & Coman, 2018; Dimm, 2015; Gauvrit, Houillon, & Delahaye, 2017; Nigrini & Miller, 2009). Benford's law has been

used to help detect anomalies (errors or manipulations) in accounting data such as accounts receivable, accounts payable, disbursements, sales, and expenses. Manipulated numbers would not occur in a normal distribution, which would cause them to fail and be detected using Benford's law (Benford). Benford's law only works for positive, naturally occurring numbers (Benford).

Coman et al. (2018) evaluated the use of Benford's law in Microsoft Excel to expand availability of the tool to those who without access to sophisticated software. In doing so, they used chi-square test, mean absolute deviation, and the graph of correlations of the researched data series and the expected data series. This example may be utilized as a statistical test for fraud detection by someone with access to Microsoft Excel and accounting/auditing expertise.

Huang, Tsiah, and Lin

Huang et al. (2014) applied an unsupervised neural network tool to analyze fraudulent financial reporting to help reveal embedded features and fraud patterns using the set of financial indicators and proportion of fraud in the sample of publicly traded companies in Taiwan. The dependent variable used for this study was the presence of fraud indicated by indictment and sentencing for fraudulent financial statements. The independent variables for the study consisted of measurements for profitability, liquidity, operating ability, financial structure, cash flow ability, financial difficulty, corporate governance. The study utilized a three-stage quantitative approach: (a) data-preprocessing, (b) clustering, and (c) feature extraction. The confirmed hypotheses could be further utilized in a decision support system to create warning signals.

O'Keefe, Wambsganss, and Dosch

O'Keefe, Wambsganss, and Dosch (2006) attempted to develop a tool for auditors to utilize for risk assessment. For this study, a statistical comparison was conducted between two

points of documentation around a potential fraud. For example, if the payment on an accounts receivable was the potential fraud, then the two points would be the documentation before the payment and the documentation after the payment. O'Keefe et al. utilized a modified traditional t-test with an increased p-value determinant. According to the findings, when the p-value is increased to .30, the probability of detecting fraud with this model is in the 80-90% range (O'Keefe et al.).

Trussel

Trussel (2003) assessed potential accounting manipulations in nonprofit organizations with higher than expected program expense ratios. The dependent variable in the study was the indication of whether or not the organization was a potential accounting manipulator. The independent variables in the study were six financial indicators: (a) surplus margin, (b) deferred expenses ratio, (c) revenue growth, (d) depreciation rate for program costs, (e) deferred revenue ratio, and (f) program-spending ratio change (Trussel). The surplus ratio represents the ratio of the surplus of revenues over expenses to revenues. The deferred expenses ratio represents the proportion of the organization's assets that are classified as deferred expenses. Revenue growth was measured as the percent change in growth of revenues from the prior year. The depreciation rate for program costs represents a measure of the rate the organization is depreciating assets related to programs. Deferred revenue ratio is the measure of the proportion of the organization's total equity and liabilities that are classified as deferred revenues. The program-spending ratio change represents the change in the program expense ratio from the prior year.

Logistical regression analysis was used to develop a predictive model (Trussel, 2003). The model was found to be significant with respect to identification of potential accounting manipulators. Findings indicated potential accounting manipulators had lower surplus margins,

less deferred expense, similar growth rates, more depreciation allocated to programs, less deferred revenue, and high changes in program-spending ratios.

Financial Indicators for the Prediction of Fraud

The majority of current research has focused on using financial indicators to attempt to predict fraud in the for-profit sector. There is limited research available pertaining to the use of financial indicators for the prediction of fraud in nonprofit organizations. A discussion is provided in this section for current research reviewed on the use of financial indicators to predict fraud.

Lee, Ingram, and Howard

Lee, Ingram, and Howard (1999) examined the relationship between earnings and operating cash flow as a possible indicator of fraudulent financial reporting. The focus of the study was the distribution of earnings and cash flow for firms with known fraud and those without any known fraud. They tested a logistic regression model of the variables and a fraud indicator. Results indicated the earnings-cash flow variable could be used in logistic regression model to improve the ability to predict frauds (Lee et al.).

McDonnell and Rutherford

McDonnell and Rutherford (2018) developed models to predict charity misconduct in the form of regulatory investigation and subsequent action. Regulatory action was defined as recommendations to improve financial controls and reporting the charity to prosecutors or suspending trustees (McDonnell & Rutherford). This study utilized two main independent variables, age and size of the nonprofit organizations, to analyze data from 25,611 charities in the Scottish charity sector. The findings indicated younger, larger organizations had a statistically significant higher possibility of being investigated. McDonnell and Rutherford discussed the

most prominent risk factor for being investigated was size, but that being investigated did not mean that the organization was found guilty of any wrongdoing. They suggested that the size could indicate greater visibility and high stakes which could lead to investigations. The predicted probabilities were suggested for use in assignment of risk categories for nonprofit organizations rather than a predictor of wrongdoing.

Roden, Cox, and Kim

Roden, Cox, and Kim (2016) studied the potential use of elements of the fraud triangle as a predictor of corporate fraud. This study utilized variables as substitutes for each element of the fraud triangle to evaluate any relationships to fraudulent corporate behavior. Roden et al. used average number of years on the board, whether or not the CEO was also the chair of the board, and the proportion of men on the board as variables for the opportunity element. The variables used for the pressure element were stock options paid, Altman's Z, and one-year change in assets. The presence of an insider member on the board, non-finance accounting experts on the board, and auditor change were used as variables for rationalization. Results were statistically significant and indicated SEC violations were more likely in companies that had fewer women as board members, more insiders, and CEOs who also serve as chair of the board.

Weske and Benuto

Weske and Benuto (2015) evaluated the effectiveness of share prices and price/earnings ratio as predictors of fraud in a sample of publicly traded companies listed with the SEC. The dependent variable was whether or not the company had been prosecuted for fraud. The independent variables used were the price/earnings ratio and the coefficient of variation of share price. Weske and Benuto then used a series of three logistical regression models to determine the extent of which the independent variables were able to predict fraud prior to a public

announcement. The findings demonstrated a statistically significant relationship between the coefficient of variation of share price and the companies prosecuted for fraud, but no statistically significant relationship between the price/earnings ratio and the companies prosecuted for fraud.

Financial Vulnerability Indicators

Research has indicated financial vulnerability as a predictor of fraud. Beneish (1999) and Dechow, Sloan, and Sweeney (1996) found correlations between financial conditions and accounting manipulations suggesting organizations in poor financial condition are more likely to manipulate accounting records. Burde (2018) discussed the use of financial indicators such as debt ratio, revenue concentration, surplus margin, and size to predict the financial vulnerability of nonprofit organizations. Financial vulnerability of nonprofit organizations can impact their ability to survive and must be evaluated. However, further research should be conducted to investigate any relationship between financial vulnerability and susceptibility to fraud. This study did not address financial vulnerability specifically. However, the researcher did examine revenue, asset, and cash growth and the ratio of cash to assets. If an organization is struggling to survive, it may not be experiencing growth and/or may not have a high ratio of cash to assets.

Variables in the Study

The independent and dependent variables were selected in the design of the project to address the research questions. Each of the variables selected have a direct relationship to the research questions and are supported by the current body of literature. An introduction to the variables will be provided here and Section 2 will provide a detailed discussion of each of the variables.

Dependent Variable

The dependent variable utilized was the presence or lack of reported fraud in the nonprofit organizations examined. The presence or lack of reported fraud was identified through indications on 2017 filings of IRS Form 990. Line 5, of Form 990 Part IV requires nonprofit organizations to report if they became aware during the year of a "significant diversion of assets" (IRS, 2016). The nonprofit organizations must check "yes' or "no" to indicate if there was a significant diversion of assets. The IRS defines a diversion of assets as any unauthorized use or exchange of the organization's assets for any purpose other than that of the organization. A diversion of assets is considered significant by the IRS if the gross value of the diversion exceeds the lessor of: (a) five percent (5%) of the nonprofit organization's gross receipts for the tax year, (b) five percent (5%) of the nonprofit organization's total assets at the end of the tax year, or (c) $250,000.

Independent Variables

The independent variables utilized for this study were: (a) revenue growth rate; (b) program expense ratio; (c) fundraising expense ratio; (d) administrative expense ratio; (e) cash and cash equivalents growth rate; (f) ratio of cash and cash equivalents to total assets; (g) total asset growth rate; (h) ratio of compensation for current officers, directors, trustees, and key employees to total expenses; (i) ratio of compensation for current officers, directors, trustees, and key employees to total compensation; and (j) the ratio of disqualified compensation to total compensation. Table 1 below provides a guide for the variable information gathered from IRS Form 990. The independent variables were selected based on the research questions of the project and a review of the current body of literature. An examination of each of the independent

variables was utilized to assist the researcher in the analysis of the data and in answering the research questions.

Revenue growth rate. The researcher measured the annual revenue growth rate for each nonprofit organization examined. The annual change in total revenue was calculated as the current year total revenue minus the prior year total revenue. The growth rate was then calculated by dividing the annual change by the prior year total revenue amount. Total revenue balances were obtained from Form 990, part I, line 12 using the prior year and current year columns. The relationship of revenue growth to fraud risk indicators have been largely studied (Beneish, 1999; Lee et al., 1999; Summers & Sweeney, 1998). This variable was selected to investigate any association between revenue growth and reported instances of fraud.

Program expense ratio. The researcher calculated the program expense ratio for each nonprofit organization examined. The program expense ratio was calculated by dividing the total program expenses by the total expenses. The amount for total program expenses was obtained from Form 990, part IX, line 25, column B. The amount for total expenses was obtained from Form 990, part IX, line 25, column A. This variable was selected to investigate any association between the program expense ratio and reported instances of fraud.

Administrative expense ratio. The researcher calculated the administrative expense ratio for each nonprofit organization examined. The administrative expense ratio was calculated by dividing the total administrative expenses by the total expenses. The amount for total administrative expenses was obtained from Form 990, part IX, line 25, column C. The amount for total expenses was obtained from Form 990, part IX, line 25, column A. This variable was selected to investigate any association between the administrative expense ratio and reported instances of fraud.

Fundraising expense ratio. The researcher calculated the fundraising expense ratio for each nonprofit organization examined. The fundraising expense ratio was calculated by dividing the total fundraising expenses by the total expenses. The amount for total fundraising expenses was obtained from Form 990, part IX, line 25, column D. The amount for total expenses was obtained from Form 990, part IX, line 25, column A. This variable was selected to investigate any association between the fundraising expense ratio and reported instances of fraud.

Cash and cash equivalents growth rate. Asset growth has been widely studied as a variable for fraud risk (Petrovitis, Shakespeare, & Shih, 2011; Skousen, Smith, & Wright, 2008; Summers & Sweeney, 1998). Rapid asset growth has been found to be positively related to the likelihood of fraud (Skousen et al.; Summers & Sweeney). Petrovits et al. found asset growth of nonprofit organizations to be positively associated with the existence of internal control deficiencies. For this study, the researcher chose to focus on total asset growth and liquid assets, cash and cash equivalents.

The annual change in cash and cash equivalents was calculated for each nonprofit organization examined. The change in cash and cash equivalents was calculated as the year-end balance reported for "cash" and "savings and temporary cash investments" minus the beginning of year total. The growth rate was then calculated by dividing the annual change by the beginning balance. The ending cash amounts were gathered from Form 990, part IX, line 1, column A. The ending savings and temporary cash investments amounts were gathered from Form 990, part IX, line 2, column A. The beginning cash amounts were gathered from Form 990, part IX, line 1, column B. The beginning savings and temporary cash investments amounts were gathered from Form 990, part IX, line 2, column B. This variable was selected to investigate any association between the cash growth rate and reported instances of fraud.

Ratio of cash and cash equivalents to total assets. The researcher calculated the ratio of cash and cash equivalents to total assets for the sample of nonprofit organizations examined by dividing the year-end balances for cash and cash equivalents by the year-end balance for total assets. The year-end balances for cash and cash equivalents were obtained from Form 990, part X, lines 1 and 2, column B. The year-end balances for total assets were obtained from Form 990, part X, line 16, column B. Due to the liquidity of cash and ease of access, the presence of large amounts of cash and cash equivalents may increase the risk of fraud through embezzlement and misappropriation of assets (ACFE, 2016). This variable was examined to investigate any association between the proportion of cash and cash equivalents to total assets and reported instances of fraud.

Total asset growth. As discussed above, asset growth has been widely studied for fraud risk. Rapid asset growth has been positively related to the likelihood of fraud. Therefore, the researcher examined asset growth to investigate any association between asset growth rate and reported instances of fraud in nonprofit organizations.

The researcher measured the total asset growth rate for each nonprofit organization examined. The annual change in total assets was calculated as the year-end balance for total assets minus the beginning balance. The growth rate was then calculated as the annual change divided by the beginning balance. The year-end balance for each nonprofit organization was gathered from Form 990, part IX, line 16, column B. The beginning balance was obtained from Form 990, part IX, line 16, column A.

Top compensation. Executive compensation is largely studied in the for-profit sector pertaining to the agency problem (Andergassen, 2016; Conyon & He, 2016; Dechow et al., 1996; Harris & Bromiley, 2007; O'Connor, Priem, Coombs, & Gilley, 2006; Zhang, Bartol, Pfarrer, &

Khanin, 2008). In situations where the management of a company is not the owner, there is a concern about whether or not management will act in their own self-interest or in the best interest of the company (Jensen & Meckling, 1976). In for-profit companies, much research has been conducted pertaining to the best compensation plans in an attempt to develop executive compensation structures that mitigate the agency problem and reduce fraud risk (Andergassen; Conyon & He; Dechow et al.; Harris & Bromiley; O'Connor et al.; Zhang et al.).

In the nonprofit setting, research has focused on the relationship between executive pay and performance (Baber, Daniel, & Roberts, 2002; Balsam & Harris, 2018; Sedatole, Swaney, Yetman, & Yetman, 2018). Grasse, Davis, and Ihrke (2014) found that organizational efficiency to be positively associated with the compensation of the executive director. These findings support paying executives higher compensation may attract and retain higher quality executives who may improve the operations of the organization. However, Newton (2015) examined whether nonprofit CEO pay was associated with superior or inferior organizational performance. The findings indicated a negative relation between the CEO pay and organizational performance at nonprofits with extremely high pay being strongly associated with poor governance (Newton). Due to this conflict, top compensation, was chosen to investigate any association between the ratio of top compensation and total expenses and reported instances of fraud. The researcher also investigated any association between the ratio of top compensation and total compensation and reported instances of fraud.

The researcher defined top compensation as compensation for current officers, directors, trustees, and key employees of the nonprofit organizations. The researcher gathered the top compensation amounts from Form 990, part IX, line 5, column A. Total expenses were obtained from Form 990, part IX, line 15, column A. The ratio of top compensation to total expenses was

then calculated by dividing the top compensation amount by the total expenses for each nonprofit organization examined. The total compensation amount included the top compensation amounts gathered plus the amount of compensation paid to disqualified persons and the amount of other salaries and wages. The amount of compensation paid to disqualified persons was obtained from Form 990, part IX, line 6, column A. The amount of other salaries and wages was obtained from Form 990, part IX, line 6, column A. The ratio of top compensation to total compensation was calculated by dividing the top compensation by the total compensation amounts.

Ratio of disqualified compensation to total compensation. As discussed previously, disqualified compensation represents the amount of compensation paid to what the IRS deems a disqualified person. A disqualified person is someone who has been in a position to exercised substantial influence over the nonprofit organization at some point during the five-year period leading up to the point of the disqualified compensation (IRS, 2017). Disqualified compensation often includes amounts paid to executives and therefore was evaluated by the researcher to further investigate any association between the ratio of disqualified compensation to total compensation and reported instances of fraud.

Table 1

Variable Information Retrieved from 2017 IRS Form 990

Tax Line Descriptions	Form Page #	Form Section #	Form Line #	Form Column Name
Total Revenue	1	I	12	Current Year
Prior Year Total Revenue	1	I	12	Prior Year
Reported Fraud/No Fraud	6	VI	5	Yes/No
Top Compensation Expenses	10	IX	5	Total Expenses (A)
Disqualified Compensation Expenses	10	IX	6	Total Expenses (A)
Total Other Salaries and Wages	10	IX	7	Total Expenses (A)
Program Expenses	10	IX	25	Program Service Expenses (B)
Administrative (Management & General) Expenses	10	IX	25	Management and General Expenses (C)

Fundraising Expenses	10	IX	25	Fundraising Expenses (D)
Total Expenses	10	IX	25	Total Expenses (A)
Ending Cash	11	X	1	End of Year (B)
Ending Savings and Temporary Cash Investments	11	X	2	End of Year (B)
Beginning Total Assets	11	X	16	Beginning of Year (A)
Ending Total Assets	11	X	16	End of Year (B)

Note. Data source: IRS Form 990 - Return of Organization Exempt from Income Tax for reporting tax year 2017.

Summary of the Literature Review

The discussion of research has demonstrated two main elements. First, research demonstrates the significance of fraud as a problem in nonprofit organizations. Second, there is a gap in the current body of research regarding financial means for the detection and prediction of fraud in the nonprofit sector. Fraud in nonprofit organizations has received more attention in the recent years, but nonprofit organizations are still largely understudied in the context of fraud (Mangala & Kumari, 2017; Snyder et al., 2017).

Transition and Summary of Section 1

Instances of fraud, waste, and abuse in nonprofit organizations have become increasingly prevalent. The effects of fraud can be very destructive to the viability and survival of the nonprofit organizations, causing direct monetary losses as well as damages to their reputation, impacting their ability to accomplish their mission and overall donor trust. These issues demonstrate a need for action by the accounting field.

There is a gap in the current body of knowledge pertaining to evaluation tools to help predict fraud, waste, and abuse in nonprofit organizations. This study was conducted to help fill the gap in literature as discussed. The researcher conducted this study to address the research questions of the applied doctoral research project. The study focused on examining the IRS Form 990 of nonprofit organizations to obtain financial data. Then the data were analyzed to investigate any correlation with instances of fraud, waste, and abuse. The study was conducted

to help solve the problem and provide management, regulators, auditors, and other stakeholders with better means to fight fraud and decrease its damage.

A discussion of the applied doctoral research project is included in the next section (Section 2). Section 2 provides information about specifics pertaining to the study design, data collection, and data analysis. This section includes a restatement of the purpose statement, describe the role of the researcher, and discuss participants. The section ends with a discussion about reliability and validity. The researcher conducted this study to address the research questions of the applied doctoral research project.

Section 2: The Project

Nonprofit organizations are increasingly impacted by instances of fraud, waste, and abuse. These incidents can be devastating to nonprofit organizations, stakeholders, and the industry overall. Experts believe there is a need for research to develop mechanisms that can be used to prevent, detect, and predict instances of fraud, as well as to mitigate the impact of fraud in nonprofit organizations (Arshad, Bakar, & Othman, 2016; Domanski, 2016). Due to the differences in nonprofit organizations, current tools used in the for-profit sector are not able to be used effectively for nonprofit organizations.

This study was designed for the purpose of contributing to the current body of research regarding the ability to predict fraud, waste, and abuse in nonprofit organizations. Additional details of the project will be presented in the following section. This section includes a discussion of the following items: (a) purpose statement, (b) role of the researcher, (c) participants, (d) research methods and design, (e) population sampling, (f) data collection, (g) data analysis process, and (h) reliability and validity.

Purpose Statement

The purpose of this non-experimental quantitative study was to examine possible correlations between the change in financial indicators and incidents of fraud, waste, and abuse in nonprofit human services organizations in order to provide improved techniques for the evaluation of fraud risk in nonprofit organizations. The primary purpose of this study was to add to the body of knowledge through the development of new evaluation methods for fraud risk analysis of nonprofit organizations. This study was also designed to provide management personnel, board of directors, donors, and auditors with additional tools to assess the fraud risk of nonprofits.

Scholarly research for nonprofit organizations primarily focuses on the transparency of the organizations (Hyndman & McConville, 2016; Jensen & Meisenbach, 2015), reporting requirements (Calabrese, 2011; Neely, 2011), efficiency assessment (Garven et al., 2016; Ryan & Irvine, 2012), and impact of information on donations (Li & McDougle, 2017; Parsons & Trussel, 2007). Parsons and Trussel proposed financial reporting factors (i.e., organizational efficiency, financial stability, information availability, and reputation) that relate to donations. This research study was designed to uncover additional relationships and techniques to assist donors with the analysis and evaluation of Parsons and Trussel's proposed factors.

Role of the Researcher

The researcher collected and analyzed the data in this quantitative study. The researcher did not directly contact the nonprofit organizations evaluated in the study. Rather, the researcher collected publicly available information from IRS Form 990 filings for the sample of nonprofit organizations using the Candid database. In quantitative studies, the researcher is expected to hold a neutral role (Yilmaz, 2013). Data are collected with no concern to the participants or researcher. The role of the researcher also included the use of care for data preservation during data collection and analysis. The researcher conducted the data collection and analysis in a manner that should be replicable by other researchers, who should generate comparable results under the same conditions.

Participants

The researcher did not use participants for this study. This study addressed the research questions and hypotheses through the use of archival data for the sample of nonprofit organizations studied. The data gathered were publicly available from IRS Form 990 filings

using the Candid database. The researcher used the data collected to perform correlational analysis of the variables.

Research Method and Design

The researcher selected the research method and design to address the project's research questions. Next, the researcher selected a purposive sample of nonprofit organizations and gathered data for the analysis. The researcher then conducted a nonexperimental quantitative analysis of the data. The following section provides a more detailed discussion of the research method and design used for this study. Support for the research method and design is provided based on a review of scholarly academic literature pertaining to similar studies and best practices for scholarly research.

Method

The research project was conducted using a quantitative research method. The researcher selected the research method based on the objectives of the research project and methods used in similar research projects. Quantitative research methods utilize numerical and quantifiable data to investigate the existence of relationships among variables (Creswell, 2014; Sekaran & Bougie, 2016; Yilmaz, 2013). As Barczak (2015) explained, quantitative methods use a deductive approach where the researcher develops hypotheses based on a theory related to the topic being studied, then tests the hypotheses to confirm or reject. The results of the quantitative method can be utilized to determine the presence of lack of a statistically significant association which is an objective of this study. This project utilized financial data and was designed to investigate the existence of associations between historical financial data and reported instances of fraud. Therefore, a quantitative method was most appropriate.

As discussed, the quantitative method was chosen because it was the best fit for the purposes of the study. The researcher also selected a quantitative method in an effort to reduce bias. Quantitative methods are less subjective because they do not introduce the potential bias of the researcher and information collected as in qualitative methods (Lee, 1992). The sample collected is purposive and random. The data collected are historical, publicly available data. Therefore, using a quantitative method, other researchers should be able to duplicate the study.

Quantitative methods are well-recognized in current literature with widely-used approaches and techniques (Yilmaz, 2013). Other researchers have used a quantitative method when studying the relationships of variables with fraud risk (Beneish, 1999; Huang et al., 2017; Huang et al., 2014; Lee et al., 1999; McDonnell & Rutherford, 2018; Roden et al., 2016; Trussel, 2003; Weske & Benuto, 2015). For these studies, the researchers utilized historical, financial data to investigate relationships between the variables and fraud risk.

Design

The research project was designed as a nonexperimental regression study. Nonexperimental research is used for exploration of existing phenomena without manipulation of the independent variable (Radhakrishnan, 2013). The variables selected by the researcher for this study were derived from historical financial data, therefore, they were not able to be manipulated. The data were then utilized to investigate the existence and significance of any associations.

Creswell (2014) discussed the use of the correlational statistic to measure and explain the relationship between variables in a correlational design. Morgan, Leech, Gloeckner, and Barrett (2013) explained the use of bivariate and multiple regression to determine associations and the use of independent variables as predictors of the dependent variable. This study focused on

associations between the dependent variable, reported fraud, and the individual independent variables: revenue growth rate; program expense ratio; fundraising expense ratio; management and general expense ratio; cash and cash equivalents growth rate; ratio of cash and cash equivalents to total assets; total asset growth rate; ratio of compensation to current officers, directors, trustees, and key employees to total expenses; ratio of compensation to current officers, directors, trustees, and key employees to total compensation; and the ratio of disqualified compensation to total compensation. The primary purpose was for the researcher to determine if any associations existed between the variables and the significance of those associations. An evaluation of the predictive capability for incidents of fraud was performed using multiple regression analysis (Salkind, 2013).

The dependent variable in this study was the indication of a significant diversion of assets (fraud) or the lack of that indication (no fraud). The researcher gathered data from 2017 Form 990 filings for each sampled nonprofit organization and indicated if there was a presence (1) or lack of fraud (0). To determine possible financial indicators that could be of use to evaluate fraud risk, the independent variables selected were: revenue growth rate, change in total assets, proportion of cash and cash equivalents to total assets, change in executive compensation, and existence of any related organizations obtained from each organization's 2017 Form 990 filing. Using the collected data, a study was conducted to investigate if any statistically significant associations existed between the individual independent variables and the dependent variable. This provided responses to the hypotheses. Then the data were run using multiple regression to evaluate any predictive capability of the variables for incidents of fraud, waste, and abuse.

Population and Sampling

The researcher designed this project to provide a comparative quantitative examination of the selected variables for nonprofit organizations that reported a significant diversion of assets and nonprofit organizations that did not report a significant diversion of assets. The population of U.S. nonprofit organizations was identified through the Candid database. Candid is a nonprofit organization that gathers, compiles, and distributes information about nonprofit organizations. Candid is commonly used by researchers for data pertaining to nonprofit organizations. The researcher chose Candid to access the data needed because Candid digitizes data fields from the IRS Form 990s using the IRS data files. This digital information was vital to gathering the data as timely and accurately as possible.

The population of nonprofit organizations was selected from 2017 Form 990 filings with the following criteria: (a) 501(c)(3) status, (b) all NTEE codes, (c) required to file Form 990, (d) exclude revoked organizations, and (e) exclude defunct or merged organizations. The researcher chose to use 2017 Form 990 filings because that was the most recent year available. The exclusion of revoked organizations allowed the researcher to filter out organizations that had been revoked by the IRS for failure to file a Form 990 for three consecutive year. The exclusion of defunct or merged organizations allowed the researcher to filter out organizations that had not been included in the IRS Business Master File (BMF) for six consecutive months. These criteria were chosen to ensure the researcher was able to obtain Form 990 data for the variables in the study and to provide the strongest comparison possible of like organizations.

The sample was selected using purposive and random sampling methods. The focus population was 330,000 nonprofit organizations with the above criteria. The researcher selected a random sample of the nonprofit organizations and utilized purposive sampling to ensure that

the sample was representative of nonprofit organizations of all sizes. The researcher desired to test the variables in nonprofit organizations of all sizes as organizations of different sizes may have different levels of internal controls which may impact their fraud risk. The sample size of 384 was determined at a 95% confidence level and a sampling error of .05. There were 228 nonprofit organizations in the selected population (referred to as fraud NPOs) who reported a significant diversion of assets in 2017. The researcher chose to evaluate all 228 nonprofit organizations who reported a significant diversion of assets in 2017. The total sample of 644 consisted of 416 nonprofit organizations who did not report a significant diversion of assets and 228 nonprofit organizations who did report a significant diversion of assets. A list of the nonprofit organizations selected for the sample is located in Appendix A.

Data Collection

The data collection process was imperative to the objectivity, reliability, and validity of the study. This section provides a discussion of the data collection method utilized for this study. The quantitative instruments used, data collection techniques employed, and data organization techniques applied, are presented and the rationale behind their selection are explained.

Instruments

The researcher did not utilize any instruments to gather data for this study. The data collected were obtained using publicly available information taken from a third-party source, Candid. The researcher entered the data gathered into Microsoft Excel spreadsheets for proper organization and to perform statistical analysis.

Data Collection Technique

The data used in the study were gathered from publicly available IRS Form 990 filings for 2017. This information was compiled by Candid. At the request of the researcher, Candid

provided a file with the data for each variable. The researcher did not use any other interview or survey technique for this study.

Data Organization Technique

The researcher obtained the information from Candid in Microsoft Excel format. The researcher then organized the data in Excel to allow for the data analysis needed to address each of the research questions. This layout was utilized to provide optimum organization and clarity for the data collection process.

The data were secured using electronic management and password protection for access to all files. The Excel file and all original files, documents, communications, invoices, and agreements with Candid were saved to the hard drive of a computer owned by the researcher. The researcher saved a second copy of each item on a secure cloud storage system. A third copy of each item was saved on a flash drive. The researcher saved additional copies of the items to protect against data loss in the event of file corruption or any other type of computer/storage malfunction.

Data Analysis

The data gathered for each nonprofit organization in the study included the name NTEE code, gross receipts total, year the organization was formed, whether or not the organization indicated a significant diversion of assets, current year total revenue, prior year total revenue, total current year program expenses, total current year fundraising expenses, total current year expenses, total current year management and general (administrative) expenses, beginning cash and cash equivalents, ending cash and cash equivalents, total assets at end of year, total assets at beginning of year, total compensation for current officers, directors, trustees, and key employees, total compensation, total disqualified compensation. The researcher then performed the

following variable calculations: (a) revenue growth rate; (b) program expense ratio; (c) fundraising expense ratio; (d) management and general expense ratio; (e) cash and cash equivalents growth rate; (f) ratio of cash and cash equivalents to total assets; (g) total asset growth rate; (h) ratio of compensation for current officers, directors, trustees, and key employees to total expenses; (i) ratio of compensation for current officers, directors, trustees, and key employees to total compensation; and (j) the ratio of disqualified compensation to total compensation. The data were gathered for tax year 2017 from the organizations' 2017 Form 990 filed with the IRS. The data were then imported into SPSS statistical software for the completion of the data analysis.

Variables

The researcher chose one dependent variable, fraud ($diversion_i$), and 10 independent variables for this study. The independent variables (shown below in Table 2) were: (a) revenue growth rate ($revgrowth_i$); (b) program expense ratio ($progexp_i$); (c) fundraising expense ratio ($fundexp_i$); (d) administrative expense ratio ($adminexp_i$); (e) cash and cash equivalents growth rate ($cashgrowth_i$); (f) ratio of cash and cash equivalents to total assets ($cashassets_i$); (g) total asset growth rate ($assetgrowth_i$); (h) ratio of compensation for current officers, directors, trustees, and key employees to total expenses ($topcompexp_i$); (i) ratio of compensation for current officers, directors, trustees, and key employees to total compensation ($topcomptotalcomp_i$); and (j) the ratio of disqualified compensation to total compensation ($disqualified_i$). These financial variables were chosen to investigate any associations with the occurrence of fraud in an effort to develop a model using publicly available financial data for fraud prediction in U.S. nonprofit organizations.

Research question 1 of the study addressed whether or not there was a statistically significant association between revenue growth rate; program expense ratio; fundraising expense ratio; administration expense ratio; cash and cash equivalents growth rate; ratio of cash and cash equivalents to total assets; total asset growth rate; ratio of compensation to current, officers, directors, trustees, and key employees to total expenses; ratio of compensation of current officers, directors, trustees, and key employees to total compensation; ratio of disqualified compensation to total compensation and reported instances of fraud. Research question two of the study addressed how well a combination of the independent variables could predict fraud in the sample of U.S. 501(c)(3) nonprofit organizations. The following section provides a discussion of the variables chosen for the study and how they were utilized to help answer the research questions of the study.

Dependent variable. The dependent variable used in this study was the existence or lack of a reported significant diversion of assets ($diversion_i$) from Part VI, Line 5 of 2017 IRS Form 990 filings for the sample of nonprofit organization. The dependent variable utilized is a dichotomous variable, the presence or lack of reported fraud. In order to perform statistical analyses, the researcher utilized a dummy variable of "1" to represent fraud and "0" to represent no fraud. This variable was necessary in order to identify organizations who experienced fraud or did not experience fraud. Once the researcher was able to delineate which organizations experienced fraud, the researcher was able to perform necessary analyses for fraud risk indicators, and to examine any potential predictors of fraud from the variables studied. The dependent variable was necessary to determine any associations of the independent variables with the existence of fraud.

Independent variable 1. Independent variable 1 was revenue growth rate ($revgrowth_i$). The revenue growth rate is a normal/scale variable. The revenue growth rate was calculated for the sample by taking the current year total revenue, subtracting the prior year total revenue, and dividing by the prior year total revenue for each nonprofit organization. This data were gathered from Form 990, Part I, Line 12. This data were needed in order to determine if revenue growth rate could be an indicator of fraud.

Independent variable 2. Independent variable 2 was program expense ratio ($progexp_i$). The program expense ratio is a normal/scale variable. The researcher calculated the program expense ratio for the sample by dividing total program expenses by total expenses for each nonprofit organization. Total program service expenses were obtained from Form 990, part IX, line 25B and total expenses were obtained from Form 990, part IX, line 25A. The researcher obtained the program expense ratio for the sample to determine if a level of program expense ratio could be an indicator of fraud.

Independent variable 3. Independent variable 3 was fundraising expense ratio ($fundexp_i$). The fundraising expense ratio is a normal/scale variable. The researcher calculated the fundraising expense ratio for the sample by dividing the total fundraising expenses by the total expenses for each nonprofit organization. The data for total fundraising expenses were gathered from Form 990, part IX, line 25D. The researcher obtained the fundraising expense ratio for the sample to determine if a level of fundraising expense ratio could be an indicator of fraud.

Independent variable 4. Independent variable 4 was administrative expense ratio ($adminexp_i$). The administrative expense ratio is a normal/scale variable. The researcher calculated the administrative expense ratio for the sample by dividing total management and

general expenses by total expenses for each nonprofit organization. Total management and general expenses were obtained from Form 990, part IX, line 25C and total expenses were obtained from Form 990, part IX, line 25A. The researcher obtained the administrative expense ratio for the sample to determine if a level of administrative expense ratio could be an indicator of fraud.

Independent variable 5. Independent variable 5 was cash growth rate ($cashgrowth_i$). The cash growth rate is a normal/scale variable. The researcher calculated the cash growth rate for the sample using both the beginning and ending cash and cash equivalents. Cash and cash equivalents consisted of reported amounts for "cash" and "ending savings and temporary cash investments. The ending cash amounts were gathered from Form 990, part X, line 1B. The ending savings and temporary cash investments amounts were gathered from Form 990, part X, line 2B. The beginning cash amounts were gathered from Form 990, part X, line 1A. The beginning savings and temporary cash investments amounts were gathered from Form 990, part X, line 2A. The beginning and ending amounts were used to calculate the growth rate for cash and cash equivalents by subtracting the beginning cash and cash equivalents from the ending cash and cash equivalents, then dividing that figure by the beginning balance. The researcher obtained the cash and cash equivalents growth rate for the sample to determine if cash and cash equivalents growth rate could be an indicator of fraud.

Independent variable 6. Independent variable 6 was the ratio of cash and cash equivalents to total assets ($cashassets_i$). The ratio of cash and cash equivalents to total assets is a normal/scale variable. In order to calculate the ratio of cash and cash equivalents to total assets, the researcher obtained the ending cash and cash equivalents and the ending total assets for each of the nonprofit organizations. Cash and cash equivalents consisted of reported amounts for

"cash" and "ending savings and temporary cash investments. The ending cash amounts were gathered from Form 990, part X, line 1B. The ending savings and temporary cash investments amounts were gathered from Form 990, part X, line 2B. The ending total asset amounts were gathered from Form 990, part X, line 16B. The ratio was then calculated by dividing the ending total cash and cash equivalents (cash plus savings and temporary cash investments) by the total ending assets. The researcher obtained the ratio of cash and cash equivalents to total assets for the sample to determine if the ratio of cash and cash equivalents to total assets could be an indicator of fraud.

Independent variable 7. Independent variable 7 was asset growth rate ($assetgrowth_i$). The asset growth rate is a normal/scale variable. The researcher calculated the asset growth rate for the sample using both the beginning and ending total asset amounts. The ending total asset amounts were gathered from Form 990, part X, line 1B. The beginning total asset amounts were gathered from Form 990, part X, line 16A. The ratio was then calculated by dividing the ending total cash and cash equivalents (cash plus savings and temporary cash investments) by the total ending assets. The beginning and ending amounts were used to calculate the growth rate for total assets by subtracting the beginning total assets from the ending total assets, then dividing that figure by the beginning balance. The researcher obtained the total asset growth rate for the sample to determine if total asset growth rate could be an indicator of fraud.

Independent variable 8. Independent variable 8 was the ratio of top compensation (compensation of current officers, directors, trustees, and key employees) to total expenses ($topcompexp_i$). The ratio of top compensation to total expenses is a normal/scale variable. In order to calculate the ratio of top compensation to total expenses, the researcher obtained the compensation of current officers, directors, trustees, and key employees as well as the total

expenses for each nonprofit organization. The compensation of current officers, directors, trustees, and key employees was gathered from Form 990, part X, line 1B. The ending savings and temporary cash investments amounts were gathered from Form 990, part IX, line 5. The amounts for total expenses were gathered from Form 990, part IX, line 25A. The ratio was then calculated by dividing the compensation of current officers, directors, trustee, and key employees by the total expenses. The researcher obtained the ratio of top compensation to total expenses for the sample to determine if the ratio of top compensation to total expenses could be an indicator of fraud.

Independent variable 9. Independent variable 9 was the ratio of top compensation (compensation of current officers, directors, trustees, and key employees) to total compensation ($topcomptotalcomp_i$). The ratio of top compensation to total compensation is a normal/scale variable. In order to calculate the ratio of top compensation to total compensation, the researcher obtained the compensation of current officers, directors, trustees, and key employees; disqualified compensation; and total other salaries and wages for each nonprofit organization. The compensation of current officers, directors, trustees, and key employees (top compensation) was gathered from Form 990, part IX, line 5. The disqualified compensation amounts were gathered from Form 990, part IX, line 6. The amounts for total other salaries and wages were gathered from Form 990, part IX, line 7. The total compensation was calculated as the combined total of the disqualified compensation, top compensation, and total other salaries and wages. The ratio was then calculated by dividing the top compensation by the total compensation for each nonprofit organization in the sample. The researcher obtained the ratio of top compensation to total expenses for the sample to determine if the ratio of top compensation to total compensation could be an indicator of fraud.

Independent variable 10. Independent variable 10 was the ratio of disqualified compensation to total compensation (*disqualified*$_i$). The ratio of disqualified compensation to total compensation is a normal/scale variable. In order to calculate the ratio of disqualified compensation to total compensation, the researcher obtained the amounts for disqualified compensation and total compensation for each nonprofit organization in the sample. The disqualified compensation amounts were gathered from Form 990, part IX, line 6. The total compensation was calculated as the combined total of the disqualified compensation (Form 990, part IX, line 6), top compensation (Form 990, part IX, line 5), and total other salaries and wages (Form 990, part IX, line 7). The ratio was then calculated by dividing the disqualified compensation by the total compensation for each nonprofit organization in the sample. The researcher obtained the ratio of disqualified compensation to total compensation for the sample to determine if the ratio of disqualified compensation to total compensation could be an indicator of fraud.

Table 2

List of Variables

Variable Name	Definition	Type	Hypothesis Test
Dependent Variable 1: *diversion*$_i$	Reported a significant diversion of assets on Form 990 Part VI, Line 5	Dichotomous Dummy = 1 if fraud was reported Dummy = 0 if no fraud was reported	N/A
Independent Variable 1: *revgrowth*$_i$	Revenue growth rate (Current year total revenue minus prior year total revenue divided by prior year total revenue [Form 990, Part I, Line 12])	Normal/Scale	Bivariate Regression $H_0 1: p > .05$ $H_A 1: p < .05$
Independent Variable 2: *progexp*$_i$	Program expense ratio (Total program service expenses [Form 990 Part IX – Line 25B] divided by total expenses [Form 990 Part IX – Line 25A])	Normal/Scale	Bivariate Regression $H_0 2: p > .05$ $H_A 2: p < .05$
Independent Variable 3: *fundexp*$_i$	Fundraising expense ratio (Total fundraising expenses [Form 990 Part IX – Line 25D] divided by total expenses [Form 990 Part IX – Line 25A])	Normal/Scale	Bivariate Regression $H_0 3: p > .05$ $H_A 3: p < .05$

Independent Variable 4: *adminexp*$_i$	Administrative expense ratio (Total management and general expenses [Form 990 Part IX – Line 25C] divided by total expenses [Form 990 Part IX – Line 25A])	Normal/Scale	Bivariate Regression $H_0 4$: $p > .05$ $H_A 4$: $p < .05$
Independent Variable 5: *cashgrowth*$_i$	Cash and cash equivalents growth rate (Ending Cash [Form 990 Part X – Line 1B] plus Ending Savings and temporary cash investments [Form 990 Part X – Line 2B]) minus (Beginning Cash [Form 990 Part X – Line 1A] plus Ending Savings and temporary cash investments [Form 990 Part X – Line 2A]) divided by (Beginning Cash [Form 990 Part X – Line 1A] plus Ending Savings and temporary cash investments [Form 990 Part X – Line 2A])	Normal/Scale	Bivariate Regression $H_0 5$: $p > .05$ $H_A 5$: $p < .05$
Independent Variable 6: *cashassets*$_i$	Ratio of cash and cash equivalents to total assets (Ending Cash [Form 990 Part X – Line 1B] plus Ending Savings and temporary cash investments [Form 990 Part X – Line 2B]) divided by ending total assets [Form 990 Part X – Line 16B])	Normal/Scale	Bivariate Regression $H_0 6$: $p > .05$ $H_A 6$: $p < .05$
Independent Variable 7: *assetgrowth*$_i$	Total asset growth rate (Ending total assets [Form 990 Part X – Line 16B] minus beginning total assets [Form 990 Part X – Line 16A]) divided by beginning total assets [Form 990 Part X – Line 16A])	Normal/Scale	Bivariate Regression $H_0 7$: $p > .05$ $H_A 7$: $p < .05$
Independent Variable 8: *topcompexp*$_i$	Ratio of compensation of current officers, directors, trustees, and key employees to total expenses (Form 990 Part IX – Line 5 divided by total expenses [Form 990 Part IX – Line 25A])	Normal/Scale	Bivariate Regression $H_0 8$: $p > .05$ $H_A 8$: $p < .05$
Independent Variable 9: *topcomptotalcomp*$_i$	Ratio of compensation of current officers, directors, trustees, and key employees to total compensation (Compensation of current officers, directors, trustees, and key employees [Form 990 Part IX – Line 5] divided by total compensation [Form 990 Part IX – Line 5] plus disqualified compensation [Form 990 Part IX – Line 6] plus total other salaries and wages [Form 990 Part IX – Line 7])	Normal/Scale	Bivariate Regression $H_0 9$: $p > .05$ $H_A 9$: $p < .05$
Independent Variable 10: *disqualified*$_i$	Ratio of disqualified compensation to total compensation (Form 990 Part IX – Line 6 divided by total compensation [Form 990 Part IX – Line 5] plus disqualified compensation [Form 990 Part IX – Line 6] plus total other salaries and wages [Form 990 Part IX – Line 7])	Normal/Scale	Bivariate Regression $H_0 10$: $p > .05$ $H_A 10$: $p < .05$
Combination of variables as a predictor		Normal/Scale	Multiple Regression $H_0 11$: $R^2 = 0$ $H_A 11$: $R^2 \neq 0$ $H_0 11$: $p > .05$ $H_A 11$: $p < .05$

Quantitative Data Analysis

Data analysis addressed the two research questions. For research question 1, the data analysis addressed if there was a statistically significant association between revenue growth rate; program expense ratio; fundraising expense ratio; administration expense ratio; cash and cash equivalents growth rate; ratio of cash and cash equivalents to total assets; total asset growth rate; ratio of compensation to current, officers, directors, trustees, and key employees to total expenses; ratio of compensation of current officers, directors, trustees, and key employees to total compensation; ratio of disqualified compensation to total compensation; and reported instances of fraud. Each of the independent variables were normal/scale variables. Therefore, the researcher was able to perform descriptive statistics to obtain the minimum, maximum, mean, standard deviation, and degree of skewness for each independent variable. The researcher checked for errors, examined the means and standard deviations for reasonableness, and checked for outliers and missing data. Histograms were prepared and analyzed for each variable to check for normal distribution.

Then, the researcher performed bivariate regression to identify the associations between each individual independent variable and the dependent variable. Typical linear regression relies on the assumption that the variables are normally distributed (Morgan et al., 2013). However, the researcher was not certain the independent variable values were normally distributed. Therefore, the researcher chose to utilize logistic regression to account for any variables that may not have been normally distributed. In order to assess statistical significance, the researcher selected a p-value of .05 to determine if results were significant at the 95% confidence level.

For research question 2, the data analysis addressed if there was a combination of the independent variables that could predict fraud within the sample of U.S. 501(c)(3) nonprofit

organizations. The dependent variable was dichotomous, having one of two values, fraud or no fraud. The researcher used dummy variables to represent fraud as a "1" or no fraud as a "0." The researcher utilized multiple regression to determine how well a combination of the independent variables could predict. A logistic regression model was selected due to the dichotomous dependent variable and the multiple independent variables that may not have been normally distributed. The researcher tested for multicollinearity for high correlations among the independent variables. Then, the researcher adjusted the analysis accordingly to remove issues of multicollinearity. In order to assess statistical significance, the researcher selected a p-value of .05 to determine if results were significant at the 95% confidence level.

Hypotheses 1. Using the independent variable of revenue growth, the data analysis determined if there was or was not a statistically significant association between the revenue growth rate and fraud. Bivariate regression analysis was conducted to determine if an association existed as well as the statistical significance of any association. Significance was determined using a p-value of .05.

Hypotheses 2. Using the independent variable of program expense ratio, the data analysis determined if there was or was not a statistically significant association between the program expense ratio and fraud. Bivariate regression analysis was conducted to determine if an association existed as well as the statistical significance of any association. Significance was determined using a p-value of .05.

Hypotheses 3. Using the independent variable of fundraising expense ratio, the data analysis determined if there was or was not a statistically significant association between the fundraising expense ratio and fraud. Bivariate regression analysis was conducted to determine if

an association existed as well as the statistical significance of any association. Significance was determined using a p-value of .05.

Hypotheses 4. Using the independent variable of administrative expense ratio, the data analysis determined if there was or was not a statistically significant association between administrative expense ratio and fraud. Bivariate regression analysis was conducted to determine if an association existed as well as the statistical significance of any association. Significance was determined using a p-value of .05.

Hypotheses 5. Using the independent variable of cash and cash equivalents growth rate, the data analysis determined if there was or was not a statistically significant association between the cash and cash equivalents growth rate and fraud. Bivariate regression analysis was conducted to determine if an association existed as well as the statistical significance of any association. Significance was determined using a p-value of .05.

Hypotheses 6. Using the independent variable of ratio of cash and cash equivalents to total assets, the data analysis determined if there was or was not a statistically significant association between the ratio of cash and cash equivalents to total assets and fraud. Bivariate regression analysis was conducted to determine if an association existed as well as the statistical significance of any association. Significance was determined using a p-value of .05.

Hypotheses 7. Using the independent variable of total asset growth, the data analysis determined if there was or was not a statistically significant association between the total asset growth rate and fraud. Bivariate regression analysis was conducted to determine if an association existed as well as the statistical significance of any association. Significance was determined using a p-value of .05.

Hypotheses 8. Using the independent variable of the ratio of compensation for current officers, directors, trustees, and key employees to total expenses, the data analysis determined if there was or was not a statistically significant association between the ratio of compensation for current officers, directors, trustees, and key employees to total expenses and fraud. Bivariate regression analysis was conducted to determine if an association existed as well as the statistical significance of any association. Significance was determined using a p-value of .05.

Hypotheses 9. Using the independent variable of the ratio of compensation for current officers, directors, trustees, and key employees to total compensation, the data analysis determined if there was or was not a statistically significant association between the ratio of compensation for current officers, directors, trustees, and key employees to total compensation and fraud. Bivariate regression analysis was conducted to determine if an association existed as well as the statistical significance of any association. Significance was determined using a p-value of .05.

Hypotheses 10. Using the independent variable of the ratio of disqualified compensation to total compensation, the data analysis determined if there was or was not a statistically significant association between the ratio of disqualified compensation to total compensation and fraud. Bivariate regression analysis was conducted to determine if an association existed as well as the statistical significance of any association. Significance was determined using a p-value of .05.

Hypotheses 11. Using all the independent variables, the data analysis was conducted to determine if any combination of the independent variables were able to predict fraud within the sample of U.S. 501(c)(3) nonprofit organizations. Logistic regression analysis was conducted to

determine if a combination of the variables were able to predict fraud and the significance of any predictive capability. Significance was determined using a p-value of .05.

Summary of Data Analysis

To determine associations between the independent variables and fraud, the researcher conducted bivariate regression. To determine a predictive model for fraud, the researcher conducted multiple regression using a logistic regression model for the combination of independent variables and fraud. The analysis was conducted using SPSS statistical software with statistical significance determined using a p-value of .05.

Reliability and Validity

Reliability and validity are issues that must be accounted for in research studies (Creswell, 2014). The types and extent of threats related to reliability and validity differ depending on the type of study, instruments utilized, and analysis conducted. It is not possible to design a study free of reliability and validity threats (Creswell). However, the researcher must take appropriate steps in the design and implementation of the study to mitigate threats to reliability and validity. A discussion of the steps that were taken by the researcher to check for the accuracy and credibility of the findings for this quantitative study are provided here.

Reliability

Reliability in a quantitative study addresses the consistency of a measure and the extent it is without bias (Creswell, 2014). Addressing reliability ensures the data gathering process and data analysis is able to be duplicated by others and increases reliability by taking appropriate precautions to remove bias. The attributes of reliability for a quantitative study are internal consistency and stability (Sekaran & Bougie, 2016).

Internal consistency. Internal consistency of measures is an indicator of whether or not the constructs of a survey instrument measures the concept in a way that respondents attach the same overall meaning to the survey items (Sekaran & Bougie, 2016). This study did not utilize a survey instrument. There were no respondents, thus no need to assess internal consistency of measure. The measurements for the financial data obtained were developed and are required by Generally Accepted Accounting Principles (GAAP) and the Internal Revenue Service (IRS). Therefore, it is reasonable to assume that the nonprofit organizations were providing the correct information for the financial data elements reported on their IRS Form 990 filings.

Stability. Stability is an indicator of the ability of a measure to be consistent regardless of changes (Heale & Twycross, 2015). A study with good stability of measure will allow others who duplicate the study using the same measure, to get the same results each time. Stability in quantitative studies is tested using two measures, test-retest reliability and parallel-form reliability (Sekaran & Bougie, 2016). Parallel-form reliability is related to survey instruments, in particular if two measures measure the same construct (Sekaran & Bougie). The test-retest for reliability is obtained by ensuring the ability of the test to be retested by another person with that other person obtained the same result. This can be of particular concern with surveys (Heale & Twycross, 2015).

This study did not utilize any survey instruments. Rather, the researcher utilized archival financial data from publicly available IRS filings for the sample of nonprofit organizations. The data were not gathered directly by the researcher which decreased the risk of a keying error by the researcher. Instead, the data were obtained from a third-party, Candid. Candid is a nonprofit organization who gathers and compiles publicly available financial data from nonprofit organization IRS Form 990 filings. The use of archival data allowed the researcher to address

the issue of reliability and provide assurance for the ability of the same data to be gathered and analysis to be duplicated by other interested parties. Candid receives the digitized data directly from the e-filed Form 990 filings. However, Candid digitizes the Form 990 filings that are not e-filed. The researcher cross-checked the data that were obtained from organizations that did not e-file. This helped to validate the accuracy of data.

Summary. Barnes et al. (2018) and Simonsohn (2013) discussed the importance of transparency in data and analyses in research as well as concerns of research misconduct. The use of archival data helps to address these issues. Publicly available, archival data are relatively easily available for interested parties to duplicate analyses which increases transparency and discourages research misconduct (Barnes et al.). The use of an archival database was suitable to address the research questions for this study. Historical financial data were needed to address. Form 990 financial data are continually gathered and digitized by Candid for U.S. nonprofit organizations. Candid implements its own internal controls over compilation and data management. The researcher cross-checked all filings that were not e-filed for accuracy. Also, the data can be verified with each nonprofit organization's publicly available Form 990 filings. Due to the popularity of and reliance on Candid by the public, it is reasonable to assume that the nonprofit organizations would also review the data available on Candid to ensure appropriate and fair assessments by the public. Therefore, the researcher deemed it appropriate to utilize the data from Candid.

Validity

In quantitative studies, validity addresses how well an instrument measures the concept that it is intended to measure (Salkind, 2013). Validity determines whether or not one is able to draw conclusions from a study (Ryan et al., 2002). There are four common threats to validity in

quantitative research: (a) internal validity, (b) external validity, (c) statistical conclusion validity, and (d) construct validity (Creswell, 2013).

Internal validity. Internal validity requires the researcher to address the issue of cause-and-effect relationships and assess the degree of confidence in any such relationship in experimental studies (Creswell, 2013; Sekaran & Bougie, 2016). Threats to internal validity for such studies include any procedures, treatments, or experiences that threaten the ability of a researcher to draw correct inferences (Creswell, 2013). This study was not experimental and did not set out to determine cause-and-effect relationships. The researcher did not use any testing instruments. The researcher solely examined archival data regarding financial data of the U.S. nonprofit organizations included in the project. The sample of nonprofits included in the study met the specific criteria of the project as discussed earlier. The use of strictly archival data for the specific sample reduced threats to the internal validity of this study.

External validity. External validity addresses issues with generalization of any relationships uncovered to the population (Sekaran & Bougie, 2016). Threats to external validity occur when the researcher draws incorrect inferences from the data analyzed for a sample to the population (Heale & Twycross, 2015). Creswell (2013) explained how external validity threats arise due to three factors: (a) characteristics of the sample selected, (b) unique characteristics of the setting for the experiment, and (c) experiment timing. These threats are primarily referred to in experimental studies. However, the researcher addressed each one in the context of this nonexperimental study.

The researcher chose to utilize a population of U.S. nonprofit organizations with a 501(c)(3) exempt status who were required to file a Form 990 for tax year 2017. Only nonprofit organizations meeting the appropriate criteria were included in the study. The researcher

requested Candid select a random sample of 384 nonprofit organizations meeting the criteria who had not reported fraud during 2017. The nonprofit organizations meeting the specific criteria who reported fraud during 2017 were all examined. This helped to reduce selection bias by the researcher. Next, the researcher chose to narrow the focus to U.S. nonprofit organizations in order to narrow the focus of the study and mitigate the influences of internal reporting differences and requirements. Lastly, the researcher was not able to overcome the time/history threat to validity for this study. The current project is not a replication of any previous study. Therefore, the researcher cannot generalize the results to past or future situations without replicating the study using future data (Creswell, 2013). Further discussion is provided in Section Three of this study.

Statistical conclusion validity. Statistical conclusion validity threats arise when a researcher draws an incorrect inference from the data due to inadequate statistical analysis (Creswell, 2013). The researcher obtained the financial variables for each nonprofit organization. Then, the researcher conducted statistical analyses as discussed previously. The statistical methods utilized were appropriate for analyzing this type of data (Morgan et al., 2013; Sekaran & Bougie, 2016). The use of appropriate analytical methods helped the researcher address statistical conclusion validity threats.

Construct validity. Construct validity assesses how well a research instrument measures what it intends to measure (Heale & Twycross, 2015). Creswell (2013) explained that threats to construct validity occur when the researcher does not appropriately define and/or measure study variables. The researcher addressed concerns about construct validity in the study design. First, the researcher selected variables that addressed the research question. Then, the researcher

clearly defined each variable including calculations. Lastly, the researcher selected the appropriate instrument for the type of data utilized in the study.

Summary of Reliability and Validity

A researcher's rigor is evaluated based on how well they address the reliability and validity of methods and instrument utilized in their study (Heale & Twycross, 2015). For this study, the researcher adequately addressed issues of reliability through the selection and use of comparable financial archival data obtained through a reputable third party. The issue of validity was addressed by the researcher through statistical testing and significance measures commonly utilized and accepted in quantitative research (Morgan et al., 2013). The tests utilized were appropriate for the type of data and hypotheses (Morgan et al.).

Transition and Summary of Section 2

This non-experimental quantitative study of associations between financial indicators and fraud in U.S. 501(c)(3) nonprofit organizations has been described through this section. The primary purpose of this study was to add to the body of knowledge through the development of new evaluation methods for fraud risk analysis of nonprofit organizations. The researcher developed the research method and design specifically to address the research questions of the study. The independent and dependent variables were selected by the researcher to investigate the research questions. Quantitative data analyses was performed on the data collected to derive conclusions for the study. The researcher took reasonable steps in the design and implementation of the study to address threats to reliability and validity.

The findings of the study are presented in the next section. The results of each of the hypotheses are stated and discussed. A detailed discussion provided for how the findings

assisted in answering the research questions of the project as well as how they contribute to the field of accounting.

Section 3: Application to Professional Practice and Implications for Change

Fighting fraud has become a focus of both for-profit and nonprofit organizations world-wide (ACFE, 2018). Nonprofit organizations are especially vulnerable to fraud (Crumbley et al., 2017). Governing bodies have attempted to implement policies to help notify stakeholders of fraud in nonprofit organizations (IRS, 2017). However, the IRS requirement merely provides notification when a significant diversion is discovered by the organization and it is only required to be reported if the diversion is deemed significant, falling above the reporting threshold. Consequently, stakeholders may only find out about fraud if it is large enough to be reported and only after it has occurred. Due to limited and/or restricted resources, nonprofit organizations may not have the ability to recover, making fraud even more catastrophic (Archambeault & Webber, 2018; Bradley, 2015; Gose, 2018; Kim, 2017).

The goal of this research project was to examine the use of financial indicators for the prediction of fraud in U.S. 501(c)(3) nonprofit organizations. The findings of this study are presented in this section. The information provided is presented in seven parts: (a) overview of the study, (b) presentation of the findings, (c) applications to professional practice, (d) recommendations for actions, (e) recommendations for further study, (f) reflections, and (g) summary and study conclusions.

Overview of the Study

It is important for stakeholders of nonprofit organizations to be able to make sound decisions pertaining to the organizations. Stakeholders are often limited to publicly available information, the annual IRS return for exemption organizations. The increasing and often devastating instances of fraud in nonprofit organizations magnify the importance of improved prevention, prediction, and detection methods.

The study of fraud has increased over past decades. However, many of the academic studies conducted about predicting fraud focus on for-profit organizations (Lee et al., 1999; Oltean, 2016; Weske & Benuto, 2015). The academic literature for nonprofit organizations has largely focused on prevention and impact of fraud in nonprofit organizations (Hyndman & McConville, 2016; Jensen & Meisenbach, 2015; Li & McDougle, 2017; Parsons, 2007). Trussel (2003) evaluated the use of financial condition indicators as predictors for accounting manipulation. This applied doctoral research project was developed and conducted to add to the current body of literature concerning the use of financial indicators derived from annual IRS filings for prediction of fraud in nonprofit organizations. The focus was on U.S. nonprofit organizations with a filing status of 501(c)(3) that filed a Form 990 in 2017.

This project was designed to address the two research questions discussed in Section One. Both research questions focused on evaluating the use of financial indicators to predict fraud in nonprofits. The first research question examined the use of the individual financial indicators to predict fraud. The second research question examined the use of a prediction model with a combination of the financial indicators to predict fraud. Overall, the findings of the study indicated three of the financial indicators: (a) cash growth rate, (b) ratio of disqualified compensation to total compensation, and (c) asset growth rate to be individually statistically significant for the prediction of fraud in the sample analyzed. The findings indicated the model with seven of the independent variables: (a) revenue growth rate, (b) program expense ratio, (c) cash growth rate, (d) the ratio of cash to total assets, (e) asset growth rate, (f) the ratio of top compensation to total expenses, and (g) the ratio of disqualified compensation to total compensation was a statistically significant prediction model for the sample analyzed. A detailed discussion of the study findings is provided in the next section.

Presentation of the Findings

The findings of this applied doctoral research project are presented in this section. The researcher designed the project to address two research questions, discussed above. The findings presented in this section addressed each research question. Furthermore, the researcher related the findings to the current body of literature as appropriate.

This project utilized historical financial data collected from 2017 Form 990 filings by Candid. The entire population of U.S. nonprofit organizations with a 501(c)(3) filing status that reported a significant diversion of assets was included in the study (n=228). A random sample of U.S. nonprofit organizations with a 501(c)(3) filing status was selected by Candid to be included in this study (n=416). The period analyzed for this study was 2017. A list of the organizations included in the study is located in Appendix A.

Research Question One

The first research question asked: Is there a statistically significant association between revenue growth rate; program expense ratio; fundraising expense ratio; administration expense ratio; cash and cash equivalents growth rate; ratio of cash and cash equivalents to total assets; total asset growth rate; ratio of compensation to current officers, directors, trustees, and key employees to total expenses; ratio of compensation to current officers, directors, trustees, and key employees to total compensation; ratio of disqualified compensation to total compensation and reported instances of fraud? The researcher addressed this question by analyzing the individual financial indicators using logistic regression analysis in SPSS statistical software. The logistic regression results are given in Appendix E and descriptive statistic information in Appendix F.

Logistic regression analysis was chosen for this study due to the use of a dichotomous dependent variable and multiple independent variables (Leech et al., 2014). There are seven underlying assumptions required for the use of logistic regression in the SPSS statistical software. The researcher ensured all seven assumptions requirements/assumptions were met to ensure the use of binomial logistic regression was appropriate. The first assumption requires the dependent variable to be dichotomous. The data met the requirements with the dichotomous dependent variable of fraud (1) or no fraud (0). Assumption two requires the use of one or more continuous or nominal independent variables (Laerd Statistics, 2017). The data met the requirement with ten independent variables measured as continuous. The third assumption requires the observations to be independent and mutually exclusive in the categories for the dependent variable (Laerd Statistics). The data utilized met the requirement because the organizations either reported fraud or did not. It was not possible for an observation to be both. Therefore, the dependent variable category was mutually exclusive. Assumption four requires an adequate sample size of 15-50 cases per independent variable (Laerd Statistics). For this data set, the requirement would be a sample size of 150-500. The study met this requirement with a sample size of 644.

The next three assumptions are required to ensure the data fits the binomial logistic regression model and can produce a valid result. Assumption five is the linearity assumption. It requires a linear relationship between the independent variables and the logit conversion of the dependent variable (Laerd Statistics, 2017). Linearity of the continuous variables with respect to the logit of the dependent variable was addressed using the Box-Tidwell (1962) procedure (Appendix B). Statistical significance of $p<.05$ was utilized to determine linearity (Tabachnick

& Fidell, 2014). Based on this assessment, all independent variables except asset growth rate were found to be linearly related to the logit of the dependent variable.

Asset growth rate did not meet the linearity assumption with the Box-Tidwell procedure with p=.001 for the natural log transformation of asset growth. When issues of nonlinear terms arise, the Box-Tidwell procedure in SPSS can be utilized to determine if the original continuous independent variable should be replaced with a power transformation of itself. The researcher analyzed the output from both the binary logistic regression analysis and the Box-Tidwell procedure with natural log transformations. The researcher then calculated *lambda* as *1+(b/gamma)* where *b* is equal to the estimated coefficient for asset growth rate without the added interaction term and *gamma* is the estimated coefficient for the interaction term between asset growth rate and its natural log transformation. This calculation resulted in a value of 0 for *b* and a value of .019 for *gamma*, for a *lambda* value of 1. A *lambda* value of 1 requires no transformation of the independent variable (Laerd Statistics, 2017).

The sixth assumption requires the data to be free of multicollinearity. In order to inspect the data for multicollinearity, the researcher inspected the correlation coefficients and VIF/tolerance values (Leech et al., 2014). Two issues with multicollinearity were identified and addressed (Appendix C). Multicollinearity was found with program expense ratio, administrative expense ratio, and fundraising expense ratio. These expense ratios are related and combine for 100% of the total expenses. In order to address this multicollinearity, the researcher removed administrative expense ratio and fundraising expense ratio from the analysis. The researcher chose to keep program expense ratio because it is a common ratio used when assessing efficiency of nonprofit organizations. The other issue with multicollinearity was with the ratio of top compensation to total compensation and top compensation to total expenses.

These two ratios both represented top compensation, so the researcher chose to eliminate top compensation to total compensation. After removing those three independent variables, there were no remaining issues of multicollinearity.

The seventh and last assumption requires the data to be free of significant outliers. The researcher tested for outliers using case diagnostics in the logistic regression output. There was one standardized residual with a value of -2.395 standard deviations (Appendix D). This case was removed from the analysis because the standardized residual was greater than two (Laerd Statistics, 2017).

The researcher then performed logistic regression using SPSS software on the remaining 643 organizations in the sample. The SPSS output for each individual independent variable tested individually for predication capability are shown below in Table 3. The full SPSS output is available in Appendix E. Each individual variable is explained below with each related hypothesis.

Table 3

Logistic Regression Predicting Likelihood of Fraud based on Each Individual Independent Variable

Variable	Score	*df*	*p*
Revenue Growth Rate	3.293	1	.070
Program Expense Ratio	1.037	1	.309
Cash Growth Rate	11.763	1	.001
Ratio of Cash to Total Assets	1.569	1	.210
Asset Growth Rate	3.977	1	.046
Ratio of Top Compensation to Total Expenses	.192	1	.661
Ratio of Disqualified Compensation to Total Compensation	4.533	1	.033
Overall Statistics	21.627	8	.006

Hypothesis 1. Hypothesis 1 stated that there is a statistically significant association between the revenue growth rate and reported instances of fraud. Revenue growth rate was calculated as the percentage change in revenues from the prior year. As revenues change, incentives and opportunities for fraud may exist. The motive/pressure and opportunity are two of the three parts of Cressey's (1973) fraud triangle. As revenues increase, there may be an increased opportunity for fraud to occur (Behn et al., 2010). This increased opportunity may further exacerbate the agency problem (Jensen & Mackling, 1976) and hinder the stewardship theory (Donaldson & Davis, 1991). There are situational and psychological factors that influence how one acts when serving as an agent or a steward (Davis et al., 1997; Pastoriza & Arino, 2008). As an organization grows, these factors may change, which can increase the risk of management acting in their own self-interest more than for the stakeholders of the organizations. These factors influence fraud risk, specifically contributing to motive and pressure (fraud triangle). In times of growth, internal controls may not be updated timely to maintain adequate segregation of duties. If there is not an appropriate segregation of duties, then that leaves opportunity for fraud to occur.

As revenues decrease, there may be an incentive/pressure for managers to fraudulently report financial operations to satisfy board members and donors (Trussel, 2003). The pressure on management for good performance, coupled with decreasing revenues may also exacerbate the agency problem and hinder the stewardship theory. This pressure increases the risk that managers may act against the best interest of the organization with acts to misrepresent the organization's financial condition for personal gain. Management may misreport functional expenses to achieve more favorable results (Garven et al., 2016; Wing, et al., 2006; Yetman & Yetman, 2012).

A binomial logistic regression was performed to determine the effects of revenue growth rate on the likelihood that the sample nonprofit organizations have reported fraud. Revenue growth rate was not deemed to be statistically significant with a p-value of .07. Table 3 contains the logistic regression results for this hypothesis. This finding supports the conclusion of Trussel (2003). Trussel studied financial indicators of 8,496 nonprofit organizations to determine their effects on the likelihood that the sample could be potential accounting manipulators. The finding was that revenue growth was not statistically significant as an indicator for fraudulent organizations (Trussel). When assessing the use of a prediction model with revenue growth rate as an indicator, it was also deemed not to be statistically significant. The results of this analysis are included in Appendix E. There was no relationship, positive nor negative, to the prediction of fraud. This result indicates that revenue growth may not have a significant impact the fraud triangle, agency theory, nor stewardship theory in nonprofit organizations.

Hypothesis 2. Hypothesis 2 stated that there is a statistically significant association between the program expense ratio and reported instances of fraud. The program expense ratio was calculated as total program expenses divided by total expenses. The program expense ratio is often used to assess the efficiency of nonprofit organizations (Chikoto & Neely, 2014; Kim, 2017). It is generally desirable for a nonprofit organization to have higher program expense ratios, indicating a majority of the expenses are going towards the program and mission of the organization. Donors may evaluate the program expense ratio when making contribution decisions (Greenlee & Brown, 1999; Jacobs & Marudas, 2009; Kim, 2017; Mankaney & Tinkleman, 2007; Marudas, 2004; Tinkleman, 1998; Trussel & Parsons, 2007). Therefore, there is pressure for management of nonprofit organizations to manage overhead expenses and expense ratios in order to retain donor support and remain sustainable. This pressure, as

explained above, exacerbates the agency problem and hinders the stewardship theory, increasing the risk of management in their own self-interest rather than those of the stakeholders. The pressure factor influence fraud risk, specifically contributing to motive/pressure (fraud triangle).

A binomial logistic regression was performed to determine the effects of the program expense ratio on the likelihood that the sample nonprofit organizations have reported fraud. The program expense ratio was not deemed to be statistically significant with a p-value of .309. Table 3 contains the logistic regression results for this hypothesis. Trussel (2003) looked at the change in program expense ratio and found that to be significant when predicting accounting manipulation in nonprofit organizations. However, this study did not look at the year-to-year changes. Using one year of data in this study, resulted in no statistical association.

Hypothesis 3. Hypothesis 3 stated that there is a statistically significant association between the fundraising expense ratio and reported instances of fraud. The fundraising expense ratio was calculated as total fundraising expenses divided by total expenses. Fundraising expenses are overhead costs and are not deemed as directly contributing to the programs/mission of the organization. Potential donors, watchdog organizations, and other stakeholders tend to perceive high overhead costs and non-program expenses as indicators of inefficiency and waste (Chikoto & Neely, 2014; Kim, 2017). These perceived inefficiencies have been associated with reduced donor confidence and support (Greenlee & Brown 1999; Jacobs & Marudas, 2009; Mankaney & Tinkleman, 2007). It has been demonstrated through previous studies that nonprofit organizations who are considered to be more efficient, receive larger contributions (Greenlee & Brown, 1999; Jacobs & Marudas, 2009; Mankaney & Tinkleman, 2007; Marudas, 2004; Tinkleman, 1998; Trussel & Parsons, 2007). This results in pressure for management of nonprofit organizations to manage overhead expenses and expense ratios in order to retain donor

support and remain sustainable. This pressure coupled with intense competition among nonprofit organizations for resources makes expense management very important and exacerbates the agency problem and hinders the stewardship theory. As explained above, this pressure influences fraud risk by contributing to the motive/pressure leg of the fraud triangle.

A binomial logistic regression was performed to determine the effects of the fundraising expense ratio on the likelihood that the sample nonprofit organizations have reported fraud. The fundraising expense ratio was not deemed to be statistically significant with a p-value of .492. Table 3 contains the logistic regression results for this hypothesis.

Hypothesis 4. Hypothesis 4 stated that there is a statistically significant association between the administrative expense ratio and reported instances of fraud. The administrative expense ratio was calculated as total administrative expenses divided by total expenses. Administrative expenses are overhead costs and are not deemed as directly contributing to the programs/mission of the organization. As explained above, potential donors, watchdog organizations, and other stakeholders tend to perceive high overhead costs and non-program expenses as indicators of inefficiency and waste (Chikoto & Neely, 2014; Kim, 2017). This leads to pressure for management to control administrative expenses as much as possible, which increases the motive/pressure leg of the fraud triangle. Sometimes, this pressure may lead management to make decisions in their own self-interest rather than that of the stakeholders. When management acts in their own self-interest, they are violating their stewardship and agency fiduciary duties.

A binomial logistic regression was performed to determine the effects of the administrative expense ratio on the likelihood that the sample nonprofit organizations have

reported fraud. The administrative expense ratio was not deemed to be statistically significant with a p-value of .955. Table 3 contains the logistic regression results for this hypothesis.

Hypothesis 5. Hypothesis 5 stated that there is a statistically significant association between the cash and cash equivalents growth rate and reported instances of fraud. The cash and cash equivalents growth rate was calculated as the 2016 to 2017 change divided by the 2016 ending balances. The change in cash and cash equivalents was calculated as the year-end balance reported for "cash" and "savings and temporary cash investments" minus the beginning of year total. The growth rate was then calculated by dividing the annual change by the beginning balance. The use of asset growth as an independent variable has been widely used in fraud studies (Petrovitis et al., 2011; Skousen et al., 2008; Summers & Sweeney, 1998).

As cash and cash equivalent balances increase, there may be an increased opportunity for fraud to occur. As explained, this increased opportunity may further exacerbate the agency problem (Jensen & Mackling, 1976) and hinder the stewardship theory (Donaldson & Davis, 1991) because management may act in their own self-interest rather than that of the stakeholders. In times of growth, internal controls may not be updated timely to maintain adequate segregation of duties. If there is not an appropriate segregation of duties, then that leaves opportunity for fraud to occur.

A binomial logistic regression was performed to determine the effects of the cash growth rate on the likelihood that the sample nonprofit organizations have reported fraud. The cash growth rate was deemed to be statistically significant with a p-value of .001. Table 3 contains the logistic regression results for this hypothesis. This finding supports the conclusions of Petrovitis et al. (2011), Skousen et al. (2008), and Summers and Sweeny (1998). The researchers found asset growth to be positively related to the likelihood of fraud (Skousen et al.; Summers &

Sweeny). Petrovitis et al. found asset growth in nonprofit organizations was positively associated with the existence of internal control deficiencies. This finding supports the opportunity leg of the fraud triangle. In times of growth, it may be difficult for organizations to update and implement appropriate internal controls, which may increase the risk of fraud. When assessing the use of a prediction model with cash growth rate as an indicator, it was also deemed to be statistically significant. The results of this analysis are included in Appendix E. There was a positive relationship to the prediction of fraud. This result indicates that cash growth may have a significant impact the fraud triangle, agency theory, and stewardship theory in nonprofit organizations.

Hypothesis 6. Hypothesis 6 stated that there is a statistically significant association between the ratio of cash and cash equivalents to total assets and reported instances of fraud. The ratio of cash and cash equivalents to total assets was calculated by dividing the year-end balances by the year-end balance for total assets. The liquidity and ease of access makes cash more susceptible to fraud (ACFE, 2016). Weak or a lack of internal controls may increase the risk of fraud by allowing an opportunity (fraud triangle) for cash to be misappropriated.

A binomial logistic regression was performed to determine the effects of the ratio of cash and cash equivalents to total assets on the likelihood that the sample nonprofit organizations have reported fraud. The ratio of cash and cash equivalents to total assets was not deemed to be statistically significant with a p-value of .210. Table 3 contains the logistic regression results for this hypothesis.

Hypothesis 7. Hypothesis 7 stated that there is a statistically significant association between the total asset growth rate and reported instances of fraud. The total asset growth rate was calculated as the 2016 to 2017 change divided by the 2016 ending balance. As explained

above, asset growth has been widely used in fraud studies as an independent variable (Petrovitis et al., 2011; Skousen et al., 2008; Summers & Sweeney, 1998).

As total assets increase, there may be an increased opportunity for fraud to occur. As previously explained, this increased opportunity may further exacerbate the agency problem (Jensen & Mackling, 1976) and hinder the stewardship theory (Donaldson & Davis, 1991) because management may act in their own self-interest rather than that of the stakeholders. In times of growth, internal controls may be weak or inadequate, leaving opportunity for fraud to occur.

A binomial logistic regression was performed to determine the effects of the total asset growth rate on the likelihood that the sample nonprofit organizations have reported fraud. The total asset growth rate was deemed to be statistically significant with a p-value of .046. Table 3 contains the logistic regression results for this hypothesis. This finding supports the conclusions of Petrovitis et al. (2011), Skousen et al. (2008), and Summers and Sweeny (1998). The researchers found asset growth to be positively related to the likelihood of fraud (Skousen et al.; Summers & Sweeny). Petrovitis et al. found asset growth in nonprofit organizations was positively associated with the existence of internal control deficiencies. This finding supports the opportunity leg of the fraud triangle. In times of growth, it may be difficult for organizations to maintain adequate internal controls, which may increase the risk of fraud.

Hypothesis 8. Hypothesis 8 stated that there is a statistically significant association between the ratio of compensation to current officers, directors, trustees, and key employees to total expenses and reported instances of fraud. The ratio of compensation to current officers, directors, trustees, and key employees to total expenses was calculated as total 2017 compensation for current officers, directors, trustees, and key employees divided by total

expenses for 2017. There have been studies of the executive compensation and its impact on the agency problem in the for-profit sector (Andergassen, 2016; Conyon & He, 2016; Dechow et al., 1996; Harris & Bromiley, 2007; O'Connor et al., 2006; Zhang et al., 2008). There is concern about whether or not management will act in their own self-interest or in the best interest of the company (Jensen & Meckling, 1976). In in the for-profit sector, research has focused on compensation plans in an effort to mitigate the agency problem and reduce fraud risk (Andergassen; Conyon & He; Dechow et al.; Harris & Bromiley; O'Connor et al.; Zhang et al.). Their findings support aligning goals of the organization with management in order to alleviate the rationalization leg of the fraud triangle and the agency problem. In the nonprofit sector, research has focused on the relationship between executive pay and performance (Baber et al., 2002; Balsam & Harris, 2018; Sedatole et al., 2018).

A binomial logistic regression was performed to determine the effects of the ratio of compensation to current officers, directors, trustees, and key employees to total expenses on the likelihood that the sample nonprofit organizations have reported fraud. The ratio of compensation to current officers, directors, trustees, and key employees to total expenses was not deemed to be statistically significant with a p-value of .661. Table 3 contains the logistic regression results for this hypothesis.

Hypothesis 9. Hypothesis 9 stated that there is a statistically significant association between the ratio of compensation to current officers, directors, trustees, and key employees to total compensation and reported instances of fraud. The ratio of compensation to current officers, directors, trustees, and key employees to total compensation was calculated as total 2017 compensation for current officers, directors, trustees, and key employees divided by total compensation for 2017. As explained above, there have been studies of the impact of executive

compensation on the agency problem and stewardship theory in both the for-profit and nonprofit sectors (Andergassen, 2016; Baber et al., 2002; Balsam & Harris, 2018; Conyon & He, 2016; Dechow et al., 1996; Harris & Bromiley, 2007; O'Connor et al., 2006; Sedatole et al., 2018; Zhang et al., 2008).

A binomial logistic regression was performed to determine the effects of the ratio of compensation to current officers, directors, trustees, and key employees to total compensation on the likelihood that the sample nonprofit organizations have reported fraud. The ratio of compensation to current officers, directors, trustees, and key employees to total compensation was not deemed to be statistically significant with a p-value of .866. Table 3 contains the logistic regression results for this hypothesis.

Hypothesis 10. Hypothesis 10 stated that there is a statistically significant association between the ratio of disqualified compensation to total compensation and reported instances of fraud. The ratio of disqualified compensation to total compensation was calculated as total 2017 disqualified compensation divided by total compensation for 2017. Disqualified compensation has not been widely studied and includes amounts paid to who the IRS deems a disqualified person.

A binomial logistic regression was performed to determine the effects of the ratio of disqualified compensation to total compensation on the likelihood that the sample nonprofit organizations have reported fraud. The ratio of disqualified compensation to total compensation was deemed to be statistically significant with a p-value of .033. Table 3 contains the logistic regression results for this hypothesis. If someone has perpetrated fraud, the organization may report amounts stolen as disqualified compensation. Therefore, the researcher anticipated a positive association between the ratio of disqualified compensation to total compensation and

reported fraud. When assessing the use of a prediction model with the ratio of disqualified compensation to total compensation as an indicator, it was also deemed to be statistically significant. The results of this analysis are included in Appendix E. There was a positive relationship to the prediction of fraud. This result indicates that nonprofit organizations may be correctly reporting amounts stolen as disqualified compensation on their Form 990 filings.

Research Question Two

The second research question asked: Is any combination of the financial variables able to predict fraud within the sample? The researcher addressed this question with binomial logistic regression analysis using SPSS software. This analysis was conducted on the seven remaining independent variables after assumption testing: (a) revenue growth rate, (b) program expense ratio, (c) cash growth rate, (d) the ratio of cash to total assets, (e) asset growth rate, (f) the ratio of top compensation to total expenses, and (g) the ratio of disqualified compensation to total compensation. Assumption testing was discussed above, and results are shown in Table 4 and Appendix E.

Hypothesis 11. Hypothesis 11 stated that some combination of the financial variables is able to predict fraud within the sample. A binomial logistic regression was performed to determine the effects of revenue growth rate; program expense ratio; cash growth rate; cash and cash equivalents to total assets; asset growth rate; the ratio of compensation to current officers, directors, trustees, and key employees to total expenses; and the ratio of disqualified compensation to total compensation on the likelihood that the sample of nonprofit organizations have reported fraud. Linearity of the continuous variables with respect to the logit of the dependent variable was assessed using the Box-Tidwell (1962) procedure. Based on this assessment, all continuous independent variables except asset growth rate were found to be

linearly related to the logit of the dependent variable. It was determined the asset growth rate variable did not require transformation and thus, satisfied the linearity requirement. There was one standardized residual with a value of -2.395 standard deviations, which was removed from the analysis. To test H11, the researcher estimated the following logistic regression model:

$$Fraud=\beta_0+\beta_1(revgrowth)-\beta_2(progexp)+\beta_3(cashgrowth)+\beta_4(cashassets)+\beta_5(assetgrowth)+\beta_6(topcompexp)+\beta_7(disqualified)$$

The logistic regression model was statistically significant, $x^2(7)=24.06$, $p<.005$. The model explained 5.0% (Nagelkerke R^2) of the variance in fraud and correctly classified 66.7% of the cases. Sensitivity was 10.1%, specificity was 97.8%, positive predictive value was 71.88%, and negative predictive value was 66.45% (Appendix E). Of the seven predictor variables only two were statistically significant: cash growth rate (p=.031) and ratio of disqualified compensation to total compensation (p=.030). For each unit increase in cash growth rate, the odds of reporting fraud increase by a factor of .99. For each unit increase in the ratio of disqualified compensation to total compensation, the odds of reporting fraud increase by a factor of .986. The predictive model is as follows:

$$Fraud=.396+.001cashgrowth-.003progexp-.002cashasset+.013disqualified-.002topcompexp$$

Revenue growth rate and asset growth rate were omitted from the predictive model equation due to a beta value of zero. Table 4 contains the logistic regression results for this hypothesis.

Table 4

Logistic Regression Predicting the Likelihood of Fraud based on revgrowth$_i$, progexp$_i$, cashgrowth$_i$, cashassets$_i$, assetgrowth$_i$, topcompexp$_i$, and *disqualified$_i$*

	B	SE	Wald	df	p	Odds Ratio	95% CI for Odds Ratio	
							Lower	Upper
Cash Growth Rate	.001	.000	5.191	1	.023	1.001	1.000	1.001
Revenue Growth Rate	.000	.000	.676	1	.411	1.000	.999	1.001
Program Expense Ratio	-.003	.004	.589	1	.443	.997	.990	1.004
Ratio of Cash to Total Assets	-.002	.002	1.435	1	.231	.998	.994	1.001
Ratio of Disqualified Compensation to Total Compensation	.013	.006	4.484	1	.034	1.013	1.001	1.026
Ratio of Top Compensation to Total Expenses	-.002	.008	.080	1	.777	.998	.982	1.014
Asset Growth Rate	.000	.000	.031	1	.860	1.000	.999	1.001
Constant	-.396	.307	1.670	1	.196	.673		

Summary of the Findings

The researcher found three of the ten individual independent variables: (a) cash growth rate, (b) asset growth rate, and (c) ratio of disqualified compensation to total compensation were individually statistically significant for the prediction of fraud in the sample analyzed. Assumption testing for the prediction model resulted in the removal of one outlier organization and three independent variables. The remaining seven independent variables: (a) revenue growth rate, (b) program expense ratio, (c) cash growth rate, (d) the ratio of cash to total assets, (e) asset growth rate, (f) the ratio of top compensation to total expenses, and (g) the ratio of disqualified compensation to total compensation were analyzed using binomial logistic regression to determine any predictive capability if used as a model. The researcher found that the model analyzed was a statistically significant prediction model for reported fraud in the sample of nonprofit organizations.

Applications to Professional Practice

The research findings of this study can be applied practically within the business environment and field of accounting. In addition, the findings may be relevant to managers, directors, auditors, donors, and other stakeholders of nonprofit organizations. This section provides discussion for the effects of these findings on nonprofit organizations and its stakeholders as well as the practice of business and accounting. A discussion of the implications of the findings in relation to the practice of professional accountancy will follow. The conclusion of this section includes a discussion about the biblical application of the findings of this study, as well as how that relates to the biblical framework discussed in Section One of this dissertation.

Practice of Business

Implementation of an effective system of internal controls is imperative for a business to operate efficiently, safeguard assets, comply with regulations, reduce the risk of fraud and error, and achieve organizational objectives (Peltier-Rivet & Lanoue, 2015). As discussed in Section One, the fraud triangle consists of motive/pressure, opportunity, and rationalization (Cressey, 1973). Organizations must be aware of the fraud triangle and its application to their business. An organization has the most control over the opportunity a person has to perpetrate fraud through the implementation of internal controls using policies and procedures to eliminate or minimize the opportunity. However, an organization has less control over the motive/pressure and rationalization of a perpetrator because they may be influenced by personal factors. The findings of cash growth rate and the ratio of top compensation to total compensation further justify the importance of an organization to implement adequate internal controls and address management incentives.

Cash growth rate was found to be statistically significant at p=.001 (individual predictor) and p=.023 (combined predictive model). The results of the combined predictive model indicate that for each unit increase in cash growth rate, the odds of reporting fraud increase by a factor of .99. This finding supports previous literature that opportunity for fraud may increase in times of growth due to lack of informal system of controls or inability to keep up with the growth (Hess & Cottrell, 2012; Mbroh, 2012). Revenue growth rate was not found to be statistically significant in the prediction of reported fraud. This finding is significant to the practice of business in that revenue growth alone does not mean the fraud risk is increased, rather it appears that the type of assets on hand may be a factor. Businesses should take this finding as further support for the need to review and implement adequate internal controls. This is especially true during times of growth in liquid assets, such as cash, which are more easily diverted.

The management of nonprofit organizations face pressure to manage organizational resources in a way that obtains the mission of the organization and satisfies donors, creditors, and other stakeholders. This pressure is exacerbated by the focus of donor evaluation of the program expense ratio (Chikoto & Neely, 2014; Kim, 2017). As previously discussed, this focus can be dangerous for nonprofit organizations because it increases the motive/pressure portion of the fraud triangle (Garven et al., 2016; Krishnan et al., 2006; Wing et al., 2006; Yetman & Yetman, 2012). The result indicating top compensation to total compensation has a negative impact on the likelihood of reported fraud indicates higher levels of compensation to executives of nonprofit organizations may create goal asymmetry (Tan & Lee, 2015) and may alleviate the agency problem by aligning the goals of the organization and donors (principals) with the agent (management). This finding demonstrates that management may utilize resources in the best interest of the agents/stakeholders (Donaldson & Davis, 1991) more as monetary incentives

increase. Thus, supporting the Brown and Yoshioka (2003) finding that perceptions of adequacy of pay was a factor in the agent/steward's focus on their own self-interest versus the interests of the principals.

The findings of this study can be applied practically in the evaluation by managers, board members, potential creditors, auditors, policy makers, and prospective donors. It is the responsibility of management and board members to adequately assess a nonprofit organization's internal control structure and fraud risk in a way that maximizes the strategic use of organizational resources and protection of those resources. The predictor variables and prediction model may be used to perform fraud risk and management assessments. The model may also be used in risk assessment by potential creditors, audit and fraud risk assessment by auditors, and selection of Form 990 filings for audit by the IRS. Potential major donors may want to utilize the prediction capabilities when selecting an organization to support.

Practice of Accounting

Accountants perform many functions including advisory services, the preparation of financial statements, audit, and review services. The accountant is relied upon to be an expert on vast scale of financial issues (AICPA, 2015). Therefore, as an accountant, one must ensure they understand the specific needs of each client. The findings of this study impact the practice of accounting in three main ways: (a) with the preparation of nonprofit organization financial statements and/or reports (b) with the audit of nonprofit organizations, and (c) advisory services to include fraud prevention programs and internal control advice.

Professional accountants must be aware of the business practices and reporting requirements of nonprofit organizations under both FASB and IRS. The accountants use that knowledge in the accurate preparation of reports and financial statements, and in performing

audits. Reports and financial statements are relied upon by all stakeholders, including board members, creditors, and potential donors. Therefore, it is imperative that accountants are acting in the public's interest.

An adequate understanding of fraud risk factors is imperative in order for accountants to act professionally and ethically when preparing reports and financial statements. Accountants may be able to utilize the predictor variables and predictive model to help clients address any potential issues and provide further guidance. Accountants may provide additional services such as development of fraud prevention programs, development of internal control policies, and procedures to further assist clients with fraud prevention. The findings of this project will assist accountants to become better-informed regarding fraud risk factors in nonprofit organizations.

Professional accountants who possess a Certified Public Accountant (CPA) designation are bound by the American Institute of Certified Public Accountant (AICPA) Code of Professional Conduct. The Code of Conduct includes a public interest principle, which requires CPAs to conduct themselves in a way that serves the public interest, upholds public trust, and exhibits a high commitment to professionalism (AICPA, 2018). When engaged to perform an audit for a client, it is important to honor the client agreement, but if there is a conflict with public interest, the CPA must always uphold the public interest. Therefore, if an auditor discovers fraud, they must report it appropriately and act in the best interest of the public (i.e., all stakeholders), as well as upholding any required confidentiality. As an auditor, the findings can be used to understand risk factors, develop audit plans, and design substantive testing. This may improve audit results and identification of issues, which would in turn improve communication of such issues to the public via audit reports.

Biblical Application

The biblical implication of this study reinforces the need for man to appropriately utilize and protect resources God has provided. As previously discussed, fraud directly violates the God's Ten Commandments through the act of deception and theft. In Exodus 20:15 God states: "You shall not lie. You shall not give false testimony against your neighbor" (NIV). Stealing is addressed in Exodus 20:15 and 20:17. God desires for people to respect and honor the possessions of others. "You shall not steal" (Exodus 20:15). "You shall not covet your neighbor's wife, or his male or female servant, his ox or donkey, or anything that belongs to your neighbor" (Exodus 20:17). Often, an internal perpetrator of fraud is in a position of stewardship and should protect an organization's assets and act as an agent in the best interest of the organization.

According to the findings in this study, as a nonprofit organization's liquid assets grow, the likelihood that fraud will be reported increases. Thus, having an increase in liquid assets may be a temptation for some to steal. The love of money (i.e., greed) as a temptation is discussed throughout the Bible. The Apostle Paul states in 1 Timothy 6:10, "For the love of money is a root of all kinds of evil. Some people, eager for money, have wandered from the faith and pierced themselves with many griefs." This greed may enhance the temptations of other sins as well and may ultimately lead one further away from God's will.

Greed is an innate part of human nature and must be protected against and on both a personal and an organizational level. It is important to address any stewardship positions and the agency problem, as well as internal controls to protect an organization from fraud. The Bible addresses stewardship and proper planning in Luke 14:28-30, where Jesus states:

> Suppose one of you wants to build a tower. Won't you first sit down and estimate the cost to see if you have enough money to complete it? For if you lay down the foundation are not able to finish it, everyone who sees it will ridicule you, saying, 'This person began to build and wasn't able to finish.'

It is apparent that planning is important to the survival of nonprofit organizations. Proper planning includes creating and implementing effective internal controls and creating appropriate management incentives to encourage stewardship behavior and eliminate the agency problem.

Van Duzer (2010) discussed God's desire or organizations to serve the community and remain sustainable. It is the duty of nonprofit management and board members to ensure appropriate management and strategic allocation of resources in a manner that assures sustainability in accordance to God's purpose. It is stated in Jeremiah 32:19, "Great are your purposes and mighty are your deeds..." Nonprofit organizations have missions to benefit society overall or a subsection of society. The benefit to society may be unmet if the organization falls victim to fraud. Therefore, it is the hope of the researcher that the findings of this study may help to improve evaluation and planning methods in nonprofit organizations with the use of financial indicators of fraud. The prediction model is statistically significant and can be utilized to help evaluate a nonprofit organization for fraud risk. Organizations that are able to understand and guard against fraud risk may be able to avoid the issues associated with such occurrences. Also, organizations or auditors who may evaluate the fraud risk or prediction in nonprofit organizations may help organizations identify fraud more quickly. Thus, minimizing the overall negative consequences of fraud incidents and contribute to increased sustainability of such organizations.

Recommendations for Action

The results of this dissertation are relevant to all U.S. nonprofit organizations. From a broad perspective, the results could also be relevant to fraud risk and management in the for-profit sector where applicable. Examples include management incentives to encourage stewardship and alleviate the agency problem and fraud risk increased by cash growth. Managers, board members, auditors, creditors, policymakers, and other stakeholders could learn from the results of this study and use that knowledge to better improve fraud prediction and risk assessment. The results could also be utilized by donors to assess the sustainability of nonprofit organizations when making contribution decisions.

The prediction model evaluated in this study may improve prediction of reported fraud in U.S. nonprofit organizations. The recommended action from this study is to integrate the financial predictors and financial prediction model into fraud detection and risk models for use by management, board members, auditors, potential creditors, policy makers, and prospective donors. The recommended specific steps to implement the results of this study into fraud risk and detection models are for: (a) nonprofit management and board members to implement a fraud risk assessment model integrating the predictive variables and model, (b) auditors of nonprofit organizations to integrate these findings in their risk assessment processes and audit substantive testing, (c) creditors of nonprofit organizations to integrate the predictor variables and model in their risk assessment processes, (d) policy makers (e.g., the Congress and the IRS) to integrate these findings as part of their audit risk factors for audit of Form 990 filings, and (e) donors to integrate the predictor variables and model as factors when making major contribution decisions.

This information should be disseminated as widely as possible to those interested in nonprofit management and nonprofit organization stakeholders. The publication of the research findings in academic and industry-specific journals to enhance the capability of use and application of the prediction model for nonprofit organizations and fraud prediction would be advisable. The findings may also be disseminated through online media sources such as reports, blogs, professional organization websites, audit firms' websites, and social media platforms.

Recommendations for Further Study

The results of this study contributed to the limited body of literature that exists regarding the prediction of fraud in U.S. nonprofit organizations. Further studies are recommended regarding this topic. Due to the lack of empirical research on reported fraud by U.S. nonprofit organizations, many avenues are open for future research.

Recommendations for further study include the consideration of alternative financial variables, the inclusion of nonfinancial variables, expansion of time period to be studied, and the use of classifications for the organizations. First, the addition of other financial variables may better predict reported fraud in nonprofit organizations. The researcher recommends the consideration of alternative financial variables such as debt ratio, surplus margin, organizational size measured financially (Burde, 2018), and program expense change ratio (Trussel, 2003). Second, the inclusion of nonfinancial variables, such as corporate governance, existence of formal policies, and relationship with controlled entities or related parties, might improve the model. Previous studies in the for-profit sector have evaluated corporate governance variables such as board size, independence, and existence of an audit committee (Uzun, Szewczyk, & Varma, 2004; Wilbanks, Hermanson, & Sharma, 2017; Yang, Jiao, & Buckland, 2017). Nonprofit organizations in the U.S. are required to disclose information about conflict of interest

and whistleblower policies, as well as the existence of controlled entities and financial relationships with related entities. The researcher recommends analyzing that information for improved predictive capabilities and support for internal controls.

Third, the research recommends expanding the time frame of the data analyzed. Expanding the time frame to analyze five or more years would help to determine how the financial variables changed over time and if the change over time impacts the likelihood of reported fraud. Lastly, the researcher recommends evaluating the use of classifications for the organizations. For this study, the researcher analyzed a sample of all U.S. nonprofit organizations with a tax exemption status granted under IRC Section 501(c)(3). Future research could consider the use of NTEE codes and the age of the organization.

Reflections

The researcher began this study with the anticipation that the seven independent variables would be statistically significant predictors for reported fraud. However, only three of the seven independent variables were found to be individually statistically significant and only two when used in the predictive model. The researcher expected revenue growth rate, program expense ratio, cash growth rate, asset growth rate, and the ratio of disqualified compensation to total compensation to be statistically significant predictors. However, only cash growth rate, asset growth rate, and ratio of disqualified compensation to total compensation were statistically significant as individual predictors. Cash growth rate and the ratio of disqualified compensation to total compensation were also statistically significant in the predictive model.

The results indicated a positive change in cash growth rate and ratio of disqualified compensation to total compensation may increase the likelihood of reported fraud. These results were anticipated by the researcher. Results also indicated a positive change in program expense

ratio, ratio of cash to total assets, and ratio of top compensation to total expenses may decrease the likelihood of reported fraud. The researcher did not anticipate the relationship of ratio of cash to total assets. It was anticipated that as an organization maintained higher proportions of cash to total assets, they would experience an increased risk of fraud. However, that was not the case with the sample and data analysis. Instead, it appears that the cash growth rate is more indicative of increased fraud risk.

In addition, the findings support the importance of planning and stewardship to protect organizational assets. King Solomon stated in Proverbs 21:5: "The plans of the diligent lead to profit as surely as haste leads to poverty" (NIV). Appropriate planning helps an organization prepare for problems and react more quickly increasing chances of survival and abundance. As the Apostle Paul stated in Philippians 4:8, "Finally, brothers and sisters, whatever is true, whatever is noble, whatever is right, whatever is pure, whatever is lovely, whatever is admirable – if anything is excellent or praiseworthy – think about such things" (NIV). This verse is one of many throughout the Bible that encourages people to do what is right and stand up for Godly righteousness and against evil. People should not partake in evil, such as fraudulent actions. The Apostle Peter warned in 1 Peter 5:8: "Be sober-minded; be watchful. Your adversary the devil prowls around like a roaring lion, seeking someone to devour" (ESV). Using predictor variables and prediction models to help predict reported fraud is helping to do what is just and right to prevent and/or detect fraud which helps to minimize damages. If one discovers fraud, then they should stand up against it, expose it (if appropriate), and warn others when possible.

Finally, the researcher was encouraged by the results of the study. There are many opportunities for additional research and the results are useful to the business and accounting field as well as the nonprofit industry and its stakeholders. The researcher was pleased to help

fill a gap in the current body of literature and aspires to conduct follow up studies that help to bring further understanding of fraud prediction for the nonprofit industry.

Summary and Conclusions

The researcher designed and conducted this applied doctoral research project to examine the use of financial indicators as predictors of fraud in U.S. nonprofit organizations. The researcher specifically examined the use of the following independent variables as predictors of reported fraud: (a) cash growth rate, (b) revenue growth rate, (c) program expense ratio, (d) ratio of cash to assets, (e) ratio of disqualified compensation to total compensation, (f) ratio of top compensation to total expenses, and (g) asset growth rate. The year 2017 was utilized for the study and a sample was taken from all 2017 Form 990 filings of U.S. nonprofit organizations with an exempt status under IRC Section 501(c)(3). The determinant for fraud was the reporting or nonreporting of a significant diversion of assets on the 2017 Form 990 filings.

A binomial logistic regression was performed to determine the effects of revenue growth rate; program expense ratio; cash growth rate; cash and cash equivalents to total assets; asset growth rate; the ratio of compensation to current officers, directors, trustees, and key employees to total expenses; and the ratio of disqualified compensation to total compensation on the likelihood that the sample of nonprofit organizations have reported fraud. The researcher found three of the independent variables to be individually statistically significant at the p=.05 level for the prediction of fraud in the sample analyzed: (a) cash growth rate (p=.001), (b) asset growth rate (p=.046), and (c) ratio of disqualified compensation to total compensation (p=.033). The logistic regression model with all seven variables was statistically significant at the 99.9% level of confidence (p=.001). The model explained 5.0% (Nagelkerke R^2) of the variance in fraud and correctly classified 66.7% of the cases. Sensitivity was 10.1%, specificity was 97.8%, positive

predictive value was 71.88%, and negative predictive value was 66.45% (Appendix E). Of the seven predictor variables only two were statistically significant: cash growth rate (p=.031) and ratio of disqualified compensation to total compensation (p=.030). For each unit increase in cash growth rate, the odds of reporting fraud increase by a factor of .99. For each unit increase in the ratio of disqualified compensation to total compensation, the odds of reporting fraud increase by a factor of .986.

The results of this study will help address the gap in literature regarding the use of financial indicators in fraud prediction for U.S. nonprofit organizations. Much of the current literature regarding financial indicators for fraud prediction focuses on the for-profit sector. The current body of literature has not evaluated prediction models with sample organizations utilizing reported fraud from the new requirement for significant diversion reporting on Form 990 filings. The findings of this study are useful for the direct application of nonprofit organizations for improved fraud prevention, risk assessment, incentive structure, and internal control planning. The findings are also useful for the direct application of auditors for improved risk assessment, audit planning, and substantive testing. More effective fraud prevention methods can help to minimize the losses associated with fraud and improve the sustainability of organizations as well as the ability of those organizations to meet the needs of society.

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Appendix A: Sample of Nonprofit Organizations

EIN	Organization Name	NTEE Code	NTEE Description
75-3019024	123 Divorce Company	I80	Legal Services
95-3976258	A Childs Hope Fund	Q33	International Relief
87-0504354	Ability Foundation	P99	Human Services - Multipurpose and Other N.E.C.
46-1466277	Abundance for All Inc	P20	Human Service Organizations
84-1292200	Acacia Counseling Inc	F22	Alcohol, Drug Abuse (Treatment Only)
06-1130180	Acts One Eight Inc	X20	Christian
04-2672489	Adams Montessori School Inc	B21	Kindergarten, Nursery Schools, Preschool, Early Admissions
66-0587983	Advanced Bilingual School Inc	B20	Elementary, Secondary Ed
77-0490412	Air Warrior Courage Foundation	T50	Philanthropy / Charity / Voluntarism Promotion (General)
92-0150193	Alaska Pacific University Foundation Inc	B12	Fund Raising and/or Fund Distribution
23-2290323	Albert Einstein Healthcare Network	E21	Community Health Systems
95-2903811	Alcoholics Anonymous Twenty-Third District Central Steering Committee	T22	Private Independent Foundations
93-1052909	All God's Children International	P31	Adoption
81-3792162	All People Harvest Global Ministries	X20	Christian
36-3261413	Allina Health System	E21	Community Health Systems
54-1726378	Alpha Phi Alpha IRA Dorsey Scholarship Endowment Fund Inc	B11	Single Organization Support
11-3763276	Alpine Christian School	B20	Elementary, Secondary Ed
06-0636098	American Assoc On Intellectual and Developmental Disabilities	V03	Professional Societies, Associations
52-1945946	American Association for Geriatric Psychiatry Inc	F03	Professional Societies & Associations
31-1142148	American Conference of Governmental Industrial Hygienists Inc	S41	Promotion of Business (Chambers of Commerce)

27-4371984	American Friends of Kishorit Inc	T99	Other Philanthropy, Voluntarism, and Grantmaking Foundations N.E.C.
23-7124261	American Kidney Fund Inc	G44	Kidney
65-0083457	American Swimming Coaches Council for Sport Development Inc	N67	Swimming, Water Recreation
26-1491008	Amigos En Cristo Inc	X03	Professional Societies, Associations
59-1971002	Angelus Inc	P80	Services to Promote the Independence of Specific Populations
01-0442853	Another Chance Animal Rescue	D20	Animal Protection and Welfare (includes Humane Societies and SPCAs)
23-7408782	Apple Valley Senior Citizens Club Inc	P81	Senior Centers/Services
06-1647745	Applied Behavioral Concepts Inc	G84	Autism
99-0089327	Arc in Hawaii	P82	Developmentally Disabled Services/Centers
86-0395005	Arcadia Scottsdale United Soccer Club	N64	Soccer Clubs/Leagues
86-1004924	Arizona Justice Project Inc	I80	Legal Services
46-2127507	Ark of Hope International Inc	X20	Christian
59-3392548	Arlington Lions Foundation Inc	E30	Health Treatment Facilities (Primarily Outpatient)
20-0273372	Art From Ashes Incorporated	A20	Arts, Cultural Organizations - Multipurpose
20-1705075	Artwell Collaborative Inc	B90	Educational Services and Schools - Other
95-1641960	Assistance League of Los Angeles	P30	Children's and Youth Services
36-2976266	Assyrian Universal Alliance Foundation Inc	Q11	Single Organization Support
74-2148804	Avenida Guadalupe Association	S22	Neighborhood/Block Associations
38-3761128	AZ Compass Schools Inc	B29	Charter Schools
26-2595058	Back River Restoration Committee Inc	A82	Historical Societies & Historic Preservation
91-1811275	Ballard High School Foundation	B90	Educational Services and Schools - Other

52-1034901	Baltimore Community Resource Center Inc	F20	Alcohol, Drug and Substance Abuse, Dependency Prevention and Treatment
34-1285058	Baptist Evangelistic Missionary Association Inc	X21	Protestant
04-3555545	Barbara C Harris Center	O55	Religious Leadership, Youth Development
46-4245843	Bcda Inc	S19	Nonmonetary Support N.E.C.
61-0482955	Bellarmine University	B43	University or Technological
39-1587673	Beloit Public Library Foundation Inc	B11	Single Organization Support
25-6030362	Benjamin Garver Lamme Scholarship Fund	B82	Scholarships, Student Financial Aid, Awards
22-2872256	Berson Family Supporting Foundation Inc	T20	Private Grantmaking Foundations
62-1247459	Bessie Smith Cultural Center African American Museum &	A50	Museum & Museum Activities
59-1507595	Big Brothers Big Sisters of Broward Inc	O31	Big Brothers, Big Sisters
81-2772278	Bigstuf Ministries Inc	N20	Recreational and Sporting Camps (Day, Overnight, etc.)
11-3771298	Black Diamond Hope House Inc	L41	Temporary Shelter For the Homeless
22-1500475	Blair Academy	B25	Secondary/High School
35-1784455	Bloomington Developmental Learning Center Incorporated	B28	Specialized Education Institutions/Schools for Visually or Hearing Impaired, Learning Disabled
62-1412287	Blount Memorial Foundation for Medical Care Inc	E22	Hospital (General)
24-0795436	Blue Mountain Hospital	E22	Hospital (General)
74-2879796	Boerne Soccer Club Inc	N64	Soccer Clubs/Leagues
46-4021815	Bold Up Ministries	X20	Christian
26-0890497	Bonner Community Housing Agencyincorporated	L21	Public Housing
46-0406318	Booth Society Inc	L80	Other Housing Support Services
01-0345660	Boothbay Region Ambulance Service	E62	Ambulance/Emergency Transport

04-3305884	Boston Skating Club Inc	N60	Amateur Sports Clubs, Leagues, N.E.C.
16-1216891	Boston Volunteer Fire Company	M24	Fire Prevention / Protection / Control
47-5045769	Bounce Animal Rescue	D20	Animal Protection and Welfare (includes Humane Societies and SPCAs)
23-7449276	Bowie Hockey Club Inc	N68	Winter Sports (Snow and Ice)
04-2649404	Boxford Trails Association	C30	Natural Resource Conservation and Protection
33-0996412	Boys & Girls Club of Eden Inc	O23	Boys and Girls Clubs (Combined)
63-0422560	Boys and Girls Club of the Wiregrass Inc	O21	Boys Clubs
26-2205556	Brazilian Twisters Sport Club Inc	N50	Recreational, Pleasure, or Social Club
13-4138205	Breaking Ground Iii Housing Development Fund Corporation	L20	Housing Development, Construction, Management
74-2743333	Breast Cancer Resource Center	P20	Human Service Organizations
93-1320871	Breast Friends	E60	Health Support Services
34-1726629	Brecksville-Broadview Heights Schools Foundation Program	B11	Single Organization Support
59-3489664	Broward Community and Family Health Centers Inc	E21	Community Health Systems
20-3358821	Buddhist Social Services Center	X50	Buddhist
20-0939449	Build It Green	C99	Environmental Quality, Protection, and Beautification N.E.C.
73-1416411	Buncombe Creek Volunteer Fire Department	M24	Fire Prevention / Protection / Control
14-1544112	Burke Volunteer Fire Department Inc Silas Vincent	M24	Fire Prevention / Protection / Control
74-2533723	Butt Holdsworth Memorial Library Endowment Fund	B70	Libraries, Library Science
55-0709223	Cabin Creek Health Center Inc	E99	Health - General and Rehabilitative N.E.C.
95-4234700	California Public Safety Radio Assoc	M02	Management & Technical Assistance
46-2992483	Camp To Success	O22	Girls Clubs
52-0853501	Capitol Hill Group Ministry	P85	Homeless Services/Centers

04-3797177	Care To Share Outreach Center Inc	F32	Community Mental Health Center
25-0965281	Carnegie Library of Pittsburgh	B70	Libraries, Library Science
86-0856792	Carson City Municipal Golf Corporation	N6A	Golf (Country Clubs, use N50)
34-1963245	Catholic Charities Housing Corporation	L02	Management & Technical Assistance
11-3235840	Cay Community Services Organization Inc	P20	Human Service Organizations
20-1696968	Celebrate Committee Inc	S12	Fund Raising and/or Fund Distribution
65-0136723	Center for Haitian Studies Inc	T22	Private Independent Foundations
33-0960142	Center for Learning Unlimited Incorporated	B28	Specialized Education Institutions/Schools for Visually or Hearing Impaired, Learning Disabled
42-1677889	Center of H O P E Heaven of People Empowerment	E92	Home Health Care (includes Visiting Nurse Associations)
20-8540875	Central American Relief Efforts	Q33	International Relief
57-0793960	Central Carolina Community Foundation	T31	Community Foundations
41-1752558	Central Minnesota Housing Partnership Inc	L20	Housing Development, Construction, Management
27-2056711	Charlotte Curling Association	N68	Winter Sports (Snow and Ice)
36-3451293	Chicago Abortion Fund	E12	Fund Raising and/or Fund Distribution
81-0408016	Child and Family Resource Council Inc	P40	Family Services
41-1496910	Child Care and Nutrition Inc	K40	Nutrition Programs
47-0379754	Childrens Hospital & Medical Center	E20	Hospitals and Primary Medical Care Facilities
77-0620629	Childrens Lifeline International Inc	P30	Children's and Youth Services
04-2943146	Childrens Orthopaedic Surgery Foundation Inc	E31	Group Health Practice (Health Maintenance Organizations)
04-2910304	Childrens Urological Foundation Inc	E24	Hospital (Specialty)
51-0421186	Christ-Centered Christian Church	X20	Christian

31-1413825	Christian Benevolent Association Foundation	G94	Geriatrics
59-2974560	Christian Ministries Inc	X20	Christian
75-2758174	Church On Wheels Inc	X21	Protestant
20-0271044	Cincinnati Center for Autism	G84	Autism
31-1571531	Cincinnati Marathon Inc	P20	Human Service Organizations
31-0930319	Circle Area Humane Society	D20	Animal Protection and Welfare (includes Humane Societies and SPCAs)
95-1660338	Clairbourn School	B99	Education N.E.C.
27-0014741	Clearcorps USA Inc	E92	Home Health Care (includes Visiting Nurse Associations)
31-6060318	Clinton County Agricultural Society	K20	Agricultural Programs
85-0234167	Colfax County Senior Citizens Inc	P81	Senior Centers/Services
13-1740447	College of New Rochelle	B43	University or Technological
04-2668678	Colony Retirement Homes Iv Inc	L22	Senior Citizens' Housing/Retirement Communities
86-1116341	Commercial Fisheries Research Foundation Inc	D99	Animal Related Activities N.E.C.
52-2374004	Commonwealth Human Services Foundation	X11	Single Organization Support
45-2201993	Commonwise Education Inc	S43	Management Services for Small Business/Entrepreneurs
38-2243550	Communities Overcoming Violent Encounters Inc	P43	Family Violence Shelters and Services
14-1498767	Community Action of Greene County Inc	S20	Community, Neighborhood Development, Improvement
47-0756972	Community Alliance Residential Services	L99	Other Housing, Shelter N.E.C.
46-1906764	Community Health and Wellness Center of Miami Inc	E32	Ambulatory Health Center, Community Clinic
84-0602837	Community Ministry of Southwest Denver	P60	Emergency Assistance (Food, Clothing, Cash)
52-1241586	Community Volunteer Fire Department of Bowleys Quarters & Vicinity Inc	M24	Fire Prevention / Protection / Control

93-0633804	Community Works Inc	F32	Community Mental Health Center
27-0648741	Companions for Heroes	W30	Military/Veterans' Organizations
14-1883194	Concord House of Charleston Inc	P70	Residential, Custodial Care (Group Home)
41-1836567	Construction Education Foundation of Minnesota	B11	Single Organization Support
39-1668287	Coulee Homes Ltd	L22	Senior Citizens' Housing/Retirement Communities
06-1245108	Coventry Volunteer Fire Association Inc	M24	Fire Prevention / Protection / Control
22-2541771	Coventry Volunteer Fire CO Inc	M24	Fire Prevention / Protection / Control
39-6026845	Covey Inc	E60	Health Support Services
23-7402065	Crawford County Council On Aging Inc	P81	Senior Centers/Services
36-3193655	Cray Medical Research Foundation	H80	Specifically Named Diseases Research
73-1209114	Crisis Pregnancy Outreach Inc	E40	Reproductive Health Care Facilities and Allied Services
06-1803490	Cristo Rey Newark High School Corp	B25	Secondary/High School
27-0843800	Crossroads Handcrafts of the World	Q32	International Economic Development
95-3766911	Cusd Foundation Inc	B99	Education N.E.C.
85-0485411	Cypress Culture Association	B28	Specialized Education Institutions/Schools for Visually or Hearing Impaired, Learning Disabled
45-5392245	Dakota Child and Family Clinic PA	E30	Health Treatment Facilities (Primarily Outpatient)
32-0156199	Daniels Music Foundation	A68	Music
22-3942318	Darrah Carr Dance Inc	A62	Dance
31-1329649	Deaf Services Center Inc	P20	Human Service Organizations
95-4831387	Debbie Allen Dance Inc	A60	Performing Arts
06-1255346	Deep River Ambulance Association Inc	E62	Ambulance/Emergency Transport
41-1925641	Degree of Honor Foundation	B82	Scholarships, Student Financial Aid, Awards
74-2363487	Denver Urban Economic Development Corporation	S31	Urban, Community

26-2964716	Diabetessisters	G40	Diseases of Specific Organs
45-0492755	Dieu Nhan Buddhist Meditation Association Inc	P50	Personal Social Services
39-0824876	District Council of Madison Inc Society of St Vincent De Paul	P60	Emergency Assistance (Food, Clothing, Cash)
85-6019249	Dona Ana County Humane Society	D20	Animal Protection and Welfare (includes Humane Societies and SPCAs)
23-1352630	Drexel University	B40	Higher Education Institutions
20-1234461	Driscoll Maternal & Fetal Physicians Group	G20	Birth Defects
61-1180221	Eastern Kentucky Child Care Coalition Inc	B60	Adult, Continuing Education
37-1290991	Eastlight Theatre Inc	A60	Performing Arts
20-8468493	Educate Uganda	B20	Elementary, Secondary Ed
04-2241718	Education Development Center Inc	B90	Educational Services and Schools - Other
45-4058184	Educational Foundation for Students Who Learn Differently Inc	B03	Professional Societies & Associations
03-0399205	Educational Resources for Children Inc	B99	Education N.E.C.
85-0244588	El Centro Family Health	E30	Health Treatment Facilities (Primarily Outpatient)
76-0481264	El-Iman	O50	Youth Development Programs
41-1384343	Elderly Housing Corporation of Claycounty Minnesota	L22	Senior Citizens' Housing/Retirement Communities
27-3484142	Elevations Foundation Inc	T30	Public Foundations
61-1698287	Eli House Mission	Z99	Unknown
95-4191698	Elizabeth Glaser Pediatric AIDS Foundation	G81	AIDS
88-0243970	Elko Friends in Service Helping	P60	Emergency Assistance (Food, Clothing, Cash)
31-1703819	Emergency Nurses Association	B60	Adult, Continuing Education
04-2770980	Emerson Health Care Foundation Inc	E11	Single Organization Support
26-0043932	Endowment Fund of Maccabi USA Sports for Israel Inc	N11	Single Organization Support

59-1813182	Escambia Search and Rescue Inc	M23	Search and Rescue Services
76-0378580	Escapees Care Inc	P70	Residential, Custodial Care (Group Home)
58-1778237	Everette Tent Ministries	X19	Nonmonetary Support N.E.C.
38-2072675	Every Womans Place	P30	Children's and Youth Services
94-3342323	Eviction Defense Collaborative Inc	I80	Legal Services
61-1503575	Exmore Supportive Housing Inc	L21	Public Housing
91-1238617	Fair Housing Center of Washington	L21	Public Housing
52-1759052	Faith and Politics Institute	R30	Intergroup/Race Relations
20-5602907	Faithful Friends	O50	Youth Development Programs
26-2302028	Families Against Narcotics Inc	F21	Alcohol, Drug Abuse (Prevention Only)
01-0367116	Families United of Washington County	P30	Children's and Youth Services
65-0897699	Family Extended Care of Vero Beach Inc	L22	Senior Citizens' Housing/Retirement Communities
38-1360539	Family Service Agency of Mid Michigan	P40	Family Services
95-3531862	Family Therapy Institute of Santa Barbara	P46	Family Counseling, Marriage Counseling
52-1465583	Federal Employee Education and Assistance Fund	B82	Scholarships, Student Financial Aid, Awards
58-1902082	Feed My Lambs Inc	B21	Kindergarten, Nursery Schools, Preschool, Early Admissions
95-6141262	Fellowship Center	F22	Alcohol, Drug Abuse (Treatment Only)
16-1581104	Finger Lakes Migrant Health Care Project Inc	E31	Group Health Practice (Health Maintenance Organizations)
31-6027662	First Community Foundation Inc	T31	Community Foundations
56-1598828	Fletcher Fire and Rescue Department Inc	M24	Fire Prevention / Protection / Control
74-3233295	Florida Society Dermatology Physician Assistant	B99	Education N.E.C.
31-1514321	Flower Mound Youth Sports Association Inc	N40	Sports Training Facilities

23-7200739	Food Research & Action Center Inc	K40	Nutrition Programs
63-0827092	Forrest Cemetery Foundation Inc	Y50	Cemeteries and Burial Services
84-1272157	Foundation for Global Scholars	Q22	International Student Exchange and Aid
47-6032744	Foundation for Lincoln City Libraries	B11	Single Organization Support
77-0306813	Fox Theater Foundation	A11	Single Organization Support
37-1087901	Francis House Inc	P75	Senior Continuing Care Communities
58-1396689	Freed-Hardeman Housing Corporation	P75	Senior Continuing Care Communities
77-0356325	Fresno New Creation Ministries Inc	X20	Christian
52-1659600	Friends of Catholic Education Inc	T11	Single Organization Support
39-1579731	Friends of Hearthstone Inc	A82	Historical Societies & Historic Preservation
26-2624529	Friends of Peb Inc	T12	Fund Raising and/or Fund Distribution
26-0144674	Fundacao Antonio Amaral Inc	B82	Scholarships, Student Financial Aid, Awards
34-1267646	Galion Community Center-YMCA	P27	YMCA, YWCA, YWHA, YMHA
26-1196166	Gap Missions Ministries	Q33	International Relief
45-4022033	Gender Justice Nevada	F40	Hot Line, Crisis Intervention
35-2438593	General Baptist Nursing Home of Piggott	E91	Nursing, Convalescent (Geriatric and Nursing)
46-2346050	Generation Opportunity Institute	B19	Nonmonetary Support N.E.C.
76-0483812	Girls Incorporated of Greater Houston	O22	Girls Clubs
56-0538016	Gods World Publications Inc	W24	Citizen Participation
20-5208348	Golden Hawks Club Inc	B11	Single Organization Support
59-1750569	Good Neighbors Housing Inc	L22	Senior Citizens' Housing/Retirement Communities
95-1656366	Good Samaritan Hospital Attn Chief Financial Officer	E24	Hospital (Specialty)
93-6024034	Good Samaritan Hospital Auxiliary	E11	Single Organization Support

56-0861003	Goodwill Industries of Eastern North Carolina Inc	B60	Adult, Continuing Education
06-1030299	Goshen Land Trust	C32	Water Resource, Wetlands Conservation and Management
66-0804803	Grameen Puerto Rico LLC	L22	Senior Citizens' Housing/Retirement Communities
75-2539757	Grand Prairie Youth Football Association	N65	Football Clubs/Leagues
87-0691643	Grandmas House Day Care	P33	Child Day Care
91-0568304	Grays Harbor Community Hospital	E20	Hospitals and Primary Medical Care Facilities
36-3540471	Great Falls Community Food Bank Inc	K31	Food Banks, Food Pantries
01-6011843	Greater Androscoggin Humane Society	D20	Animal Protection and Welfare (includes Humane Societies and SPCAs)
52-6049658	Greater Baltimore Medical Center	E22	Hospital (General)
31-1010589	Greater Cincinnati Intergroup Council of Alcoholics Anonymous	F22	Alcohol, Drug Abuse (Treatment Only)
91-0588304	Greater Seattle Intergroup Assn of Alcoholics Anonynous	F22	Alcohol, Drug Abuse (Treatment Only)
94-2783969	Green Valley Assistance Services Inc	P51	Financial Counseling, Money Management
38-3522344	Grow & Lead - Community and Youth Development	T11	Single Organization Support
35-2200461	Grundy Livingston Kankakee Workforce Investment Board Inc	S30	Economic Development
84-1339198	Gunnison Legacy Fund	C34	Land Resources Conservation
35-1758438	Habitat for Humanity International Inc	L20	Housing Development, Construction, Management
73-1422362	Habitat for Humanity International Inc	L20	Housing Development, Construction, Management
54-1441871	Habitat for Humanity International Inc	L20	Housing Development, Construction, Management
58-2321199	Habitat for Humanity International Inc	L20	Housing Development, Construction, Management
94-3281616	Habitat for Humanity International Inc	L20	Housing Development, Construction, Management

46-3860027	Haiti Cholera Research Funding Foundation Inc	P12	Fund Raising and/or Fund Distribution
16-1441252	Hamburg Natural History Society Inc	A80	Historical Societies and Related Activities
41-1817606	Hamel Athletic Club	N60	Amateur Sports Clubs, Leagues, N.E.C.
54-0505990	Hampton University	B43	University or Technological
91-2160019	Hands of Hope	X20	Christian
23-2548307	Hanover Soccer Club	N64	Soccer Clubs/Leagues
75-6044322	Hardin-Simmons University Academic Foundation	B11	Single Organization Support
62-0501916	Harpeth Hall School	B20	Elementary, Secondary Ed
20-0454620	Harrison County Agri-Business Association	S20	Community, Neighborhood Development, Improvement
61-6034355	Harrison County Educational Foundation	B82	Scholarships, Student Financial Aid, Awards
95-1911219	Harvey Mudd College	B42	Undergraduate College (4-year)
34-0963865	Hattie Larlham Center for Children With Disabilities	P82	Developmentally Disabled Services/Centers
03-0358613	Have Justice-Will Travel Inc	N20	Recreational and Sporting Camps (Day, Overnight, etc.)
22-3969736	Hawaii LGBT Legacy Foundation	R26	Lesbian/Gay Rights
52-2337019	Health and Environmental Sciences Institute	U20	Science, General (includes Interdisciplinary Scientific Activities)
80-0414603	Health Information Exchange of Montana Inc	W05	Research Institutes and/or Public Policy Analysis
26-0907331	Heartsong Health in Community	G43	Heart and Circulatory System
81-0305451	Helena Industries Inc	P82	Developmentally Disabled Services/Centers
01-0461341	Helping Hands for Children and Families	P30	Children's and Youth Services
71-0534984	Hendrix-Murphy Foundation Inc	B42	Undergraduate College (4-year)
95-3665050	Heritage Museum of Orange County	A54	History Museums
45-2422428	Highlands-Cashiers Physician Services Inc	E11	Single Organization Support
11-2592214	Hispanic Counseling Center Inc	F32	Community Mental Health Center

04-6191407	Historic Salem Inc	A80	Historical Societies and Related Activities
94-1312328	Home of Peace of Oakland	X21	Protestant
23-7062425	Homenetmen	N60	Amateur Sports Clubs, Leagues, N.E.C.
22-3660414	Homes By Tlc Inc	P85	Homeless Services/Centers
61-1338845	Honey Branch Industrial Development Authority Inc	S30	Economic Development
47-1652561	Honolulu Biennial Foundation	A25	Arts Education/Schools
20-8934436	Hope Center Ministries	F22	Alcohol, Drug Abuse (Treatment Only)
27-2053273	Hope of the Valley Rescue Mission	P20	Human Service Organizations
62-1361122	Hope Pregnancy Center	P80	Services to Promote the Independence of Specific Populations
45-3833248	Hope Sanger	P60	Emergency Assistance (Food, Clothing, Cash)
20-3778171	Hospice of Chattanooga Foundation	P11	Single Organization Support
86-0338886	Hospice of the Valley	P74	Hospice
71-0730452	Hot Springs Documentary Film Institute	A84	Commemorative Events
53-0204707	Howard University	B43	University or Technological
56-2383564	Hudson Gateway Realtor Foundation Inc	B99	Education N.E.C.
14-1470087	Hudson Highlands Nature Museum	C60	Environmental Education and Outdoor Survival Programs
75-6060794	Humane Society of Harrison County	D20	Animal Protection and Welfare (includes Humane Societies and SPCAs)
64-6034439	Humane Society of South MS	D20	Animal Protection and Welfare (includes Humane Societies and SPCAs)
81-2925435	Iglesia Mision Pentecostes Cristo Viene	X20	Christian
26-2202852	Indiana Life Sciences Academy Inc	V30	Interdisciplinary Research
95-3287300	Inglewood Neighborhood Housing Services Inc	L20	Housing Development, Construction, Management
38-3030262	Inkster Senior Services Inc	P81	Senior Centers/Services
26-4723413	Inland Northwest Honor Flight	A80	Historical Societies and Related Activities

13-3400377	Institute for American Values	W01	Alliance/Advocacy Organizations
34-1693395	Instrumental Music Boosters of the Massillon City Schools Inc	A12	Fund Raising and/or Fund Distribution
61-1212528	Inter-Church Organization Inc	W99	Public, Society Benefit - Multipurpose and Other N.E.C.
88-0096475	Inter-Tribal Council of the State of Nevada	P84	Ethnic/Immigrant Services
36-3284767	Intercommunity Charitable Trust	T70	Fund Raising Organizations That Cross Categories includes Community Funds/Trusts and Federated Giving Programs) e.g. United Way
92-0147354	Interior Community Health Center	E32	Ambulatory Health Center, Community Clinic
35-0894354	International Association for Food Protection Inc	K03	Professional Societies, Associations
04-3550580	International Center for Conciliation Inc	Q41	Arms Control, Peace Organizations
42-1322075	International Homicide Investgators Associates Inc	I03	Professional Societies, Associations
27-1455999	International League of Conservation Photographers Inc	C30	Natural Resource Conservation and Protection
59-3582782	Internet Miniature Pinscher Service Inc	D20	Animal Protection and Welfare (includes Humane Societies and SPCAs)
20-5855724	Its the Pits	D20	Animal Protection and Welfare (includes Humane Societies and SPCAs)
54-1253532	Izaak Walton League of America Inc	C30	Natural Resource Conservation and Protection
22-6881571	Jeffry W Berger Research Scholarship Tr	B82	Scholarships, Student Financial Aid, Awards
27-2371892	Jericho House Incorporated	F22	Alcohol, Drug Abuse (Treatment Only)
38-2958545	Jewell Educational Fund	B82	Scholarships, Student Financial Aid, Awards
75-0808797	Jewish Federation Jewish Social Service	T70	Fund Raising Organizations That Cross Categories includes Community Funds/Trusts

			and Federated Giving Programs) e.g. United Way
26-1786285	Jfs Housing Inc	L80	Other Housing Support Services
27-0849015	Joelton Hope Center	K31	Food Banks, Food Pantries
34-1794724	Johnny Appleseed Heritage Center	A61	Performing Arts Centers
05-0306206	Johnson & Wales University	B43	University or Technological
54-1417126	Judeo-Christian Outreach Center Inc	L41	Temporary Shelter For the Homeless
61-1176695	Just Enterprises Inc	A24	Folk Arts
33-1085540	Justpartners Inc	P28	Neighborhood Center, Settlement House
20-2310759	K & D Transit Inc	W40	Public Transportation Systems and Services
94-1340523	Kaiser Foundation Health Plan Inc	E31	Group Health Practice (Health Maintenance Organizations)
94-1105628	Kaiser Foundation Hospitals	E21	Community Health Systems
35-1509145	Kaiser Home Support Services Inc	P44	Homemaker, Home Health Aide
74-2972956	Karnes City Volunteer Fire Department Inc	M24	Fire Prevention / Protection / Control
55-0703751	Kermit Volunteer Fire Dept	M24	Fire Prevention / Protection / Control
45-0403385	Keya Radio Incorporated	A34	Radio
23-3060082	Khepera Charter School	B29	Charter Schools
33-0626004	Khmer Buddhist Society of San Bernardino Inc	X50	Buddhist
25-0983060	Kidsvoice	I80	Legal Services
06-1412359	Kiryas Joel Volunteer Emergency Medical Services Inc	E62	Ambulance/Emergency Transport
34-6536525	Kiwanis Club of Lakewood Ohio Scholarship Foundation Inc	B82	Scholarships, Student Financial Aid, Awards
06-1474233	Klein Memorial Auditorium Foundation Inc	A20	Arts, Cultural Organizations - Multipurpose
20-4368366	LA Maestra Foundation Inc	P60	Emergency Assistance (Food, Clothing, Cash)
65-0005948	LA Musica Di Asolo Inc	A68	Music

48-0886411	Labette Center for Mental Health Services Incorporated	F30	Mental Health Treatment
20-1722834	Lacis Museum of Lace and Textiles Inc	A50	Museum & Museum Activities
56-1335972	Lake Norman Little League Inc	N40	Sports Training Facilities
59-2842486	Lakeview Villa Inc	F33	Group Home, Residential Treatment Facility - Mental Health Related
52-6048052	Lansdowne Volunteer Fire Association No 1 Inc	M24	Fire Prevention / Protection / Control
38-3089589	Lap Respite Center	P82	Developmentally Disabled Services/Centers
95-4311058	Las Best	O50	Youth Development Programs
45-4529860	Leader Dogs for the Blind Foundation	P11	Single Organization Support
22-6063278	Leadingage New Jersey Inc	G01	Alliance/Advocacy Organizations
35-6041946	Lebanon Area Boys & Girls Club	O23	Boys and Girls Clubs (Combined)
65-1044146	Lees Foster Home Inc	P82	Developmentally Disabled Services/Centers
55-0689535	Liability Insurance Trust for Monongalia Health System Inc and M	E11	Single Organization Support
91-1821013	Lincoln City Cultural Center Inc	A20	Arts, Cultural Organizations - Multipurpose
58-2516250	Little School Inc	B21	Kindergarten, Nursery Schools, Preschool, Early Admissions
23-7055535	Local Union No 68 Training Program Trust	J22	Employment Training
95-3915617	Lomita Kiwanis Gardens Inc	L21	Public Housing
41-1833478	Long Lake Home Owners Assn Inc	C30	Natural Resource Conservation and Protection
95-3134049	Los Angeles Mission Inc	P85	Homeless Services/Centers
47-2405132	Lower Polk Community Benefit District	S20	Community, Neighborhood Development, Improvement
39-1466308	Lutheran Homes & Health Services Foundation Inc	P11	Single Organization Support
46-5681240	Macs Mission	P20	Human Service Organizations

62-0858169	Madonna Learning Center Incorporated	B28	Specialized Education Institutions/Schools for Visually or Hearing Impaired, Learning Disabled
26-1658534	Mahamevnawa Bhavana Monastery of New Jersey	Y99	Mutual/Membership Benefit Organizations, Other N.E.C.
71-0857818	Mainstreet Kids	P33	Child Day Care
39-1902797	Manning Regional Healthcare Center	E22	Hospital (General)
38-2700548	Maple Valley Memorial Scholarship Foundation	B82	Scholarships, Student Financial Aid, Awards
65-1269250	Maranatha Brethren in Christ Church Inc	X21	Protestant
45-3076709	Marin Summer Theater	A65	Theater
13-6035522	Mariners Museum Tr No 1 P03583005	A11	Single Organization Support
20-5094518	Mary L and William J Osher Foundation	T30	Public Foundations
91-0309670	Masonic Temple Association of Spokane Washington	Z99	Unknown
25-1044174	Masontown Volunteer Fire Department	M24	Fire Prevention / Protection / Control
04-3215778	Massachusetts Science Center Corporation	B90	Educational Services and Schools - Other
59-1846986	McClain Inc	P73	Group Home (Long Term
59-3181989	McClusky Enterprises Inc	L24	Independent Housing for People with Disabilities
93-0864239	McKenzie Personnel Systems	J30	Vocational Rehabilitation (includes Job Training and Employment for Disabled and Elderly)
41-1801370	Mdi Government Service Inc	J30	Vocational Rehabilitation (includes Job Training and Employment for Disabled and Elderly)
04-3287193	Medway Extended Day Inc M E D I	P33	Child Day Care
73-0657931	Mental Health Association in Tulsa Inc	F80	Mental Health Association, Multipurpose
77-0367895	Merced Center for the Performing Arts	A65	Theater
04-3831639	Mercy Drive Inc	P70	Residential, Custodial Care (Group Home)

38-1698501	Michigan Architectural Foundation	A03	Professional Societies, Associations
93-0951908	Mid-Columbia Childrens Council Inc	B21	Kindergarten, Nursery Schools, Preschool, Early Admissions
31-0984885	Mid-Ohio Board for Independent Living	P19	Nonmonetary Support N.E.C.
62-1147741	Military Order of the Stars and Bars	A80	Historical Societies and Related Activities
47-0544755	Millard United Sports	N40	Sports Training Facilities
41-1649643	Minnesota Housing Partnership	L01	Alliance/Advocacy Organizations
38-2873880	Mission Opportunities Short Term	P20	Human Service Organizations
59-2173214	Mission To Haiti Inc	Q30	International Development, Relief Services
64-0881013	Mississippi Baptist Medical Center	E22	Hospital (General)
22-1764580	Monmouth Conservatory of Music	A6E	Performing Arts Schools
20-3406668	Morning Light Foundation	B99	Education N.E.C.
33-0311012	Mountain Shadows Support Group	P50	Personal Social Services
56-2004544	Mountain Valley Volunteer Fire & Rescue Inc	M24	Fire Prevention / Protection / Control
33-0700485	Mountain View Acres Inc	L21	Public Housing
93-1205915	MT Angel Community Foundation	T31	Community Foundations
20-8686590	Mulberry Fields	X21	Protestant
94-2638257	Museo Italo-Americano	A23	Cultural, Ethnic Awareness
26-2059154	Musicworks	P20	Human Service Organizations
25-6333828	Mutual Aid Ambulance Service Trust	E62	Ambulance/Emergency Transport
65-0511429	Naples Botanical Garden Inc	C41	Botanical Gardens, Arboreta and Botanical Organizations
20-8734514	Nar Incorporated	K30	Food Service, Free Food Distribution Programs
01-0672424	Nashoba Learning Group Inc	B28	Specialized Education Institutions/Schools for Visually or Hearing Impaired, Learning Disabled
84-1036938	National Association for Interpretation	B03	Professional Societies & Associations

04-2791194	National Association of Black Accountants Inc	S41	Promotion of Business (Chambers of Commerce)
52-1185005	National Association of Women Judges	R24	Women's Rights
26-4277380	National Cancer Assistance Foundation Inc	G30	Cancer
91-2031606	National Church Residences Of	L21	Public Housing
94-3222960	National Equity Project	B02	Management & Technical Assistance
01-0560081	National Nurse-Led Care Consortium	E90	Nursing Services General (includes Candy Stripers)
22-2020032	National Recall Alert Center	P33	Child Day Care
76-0191887	Nederland Heritage Festival Foundation Inc	A23	Cultural, Ethnic Awareness
88-0345763	Nevada Rural Hospital Project Foundation Inc	E12	Fund Raising and/or Fund Distribution
26-4274546	New Alternative Education High School of Osceola County Inc	B25	Secondary/High School
03-0278626	New Economy Coalition Inc	R01	Alliance/Advocacy Organizations
04-2104763	New England Deaconess Association	P75	Senior Continuing Care Communities
22-2304075	New Horizons in Autism Inc	P73	Group Home (Long Term
94-2938206	New Horizons Nursery School Inc	B21	Kindergarten, Nursery Schools, Preschool, Early Admissions
41-0742505	New Ulm Turnverein	N60	Amateur Sports Clubs, Leagues, N.E.C.
26-0337511	Nine Star University of Healthsciences	B43	University or Technological
33-0665952	Ninh Thuan Friendly Association	J21	Vocational Counseling / Guidance / Testing
63-0695567	North Central Alabama Association for Alcoholism	F22	Alcohol, Drug Abuse (Treatment Only)
83-0494683	North County Trade Tech High School	B25	Secondary/High School
34-1176266	North High School Boosters Club of Eastlake Ohio Inc	B11	Single Organization Support
16-1472265	North Shore Volunteer Emergency Squad Inc	E62	Ambulance/Emergency Transport
75-2800087	North Texas State Soccer Association Inc	N64	Soccer Clubs/Leagues
32-0033813	North-South Institute	K02	Management & Technical Assistance

48-1200834	Northeast Kansas Football League	N65	Football Clubs/Leagues
91-1717600	NW Sarcoma Foundation A Non-Profit Corporation	P01	Alliance/Advocacy Organizations
26-1176618	Oasis Therapeutic Life Centers Inc	B28	Specialized Education Institutions/Schools for Visually or Hearing Impaired, Learning Disabled
20-1787299	Odyssey Charter School Incorporated	B29	Charter Schools
74-1995879	Oficina Legal Del Pueblo Unido Inc	R99	Civil Rights, Social Action, and Advocacy N.E.C.
22-2483318	Ogontz Avenue Revitalization Corp	S30	Economic Development
34-1193406	Ohio Community Corrections Association	S21	Community Coalitions
31-4379529	Ohio United Way	T70	Fund Raising Organizations That Cross Categories includes Community Funds/Trusts and Federated Giving Programs) e.g. United Way
31-1358163	Ohio Wildlife Rehabilitators Association	D31	Protection of Endangered Species
13-3503155	Ohr Somayach International Inc	X30	Jewish
01-0349706	Onpoint Health Data	E60	Health Support Services
35-1614662	Open Arms Christian Ministries	P70	Residential, Custodial Care (Group Home)
38-2269018	Orchard Terrace Non - Profit Elderly Housing Corp	L22	Senior Citizens' Housing/Retirement Communities
36-4192960	Orland Park Sparks	N70	Amateur Sports Competitions
04-3717267	Orphans Unlimited Inc	X20	Christian
37-1282129	Orpheum Childrens Science Museum Inc	B90	Educational Services and Schools - Other
94-2728116	Other Minds	A68	Music
39-1784344	Owen-Withee Community Ambulance Service Inc	E62	Ambulance/Emergency Transport
31-0934786	Oxford Senior Citizens Inc	P81	Senior Centers/Services
27-1285566	Pace Finance Corporation	G54	Epilepsy
95-4497617	Palisades Pride Inc	P99	Human Services - Multipurpose and Other N.E.C.

59-1090377	Palmetto Youth Center	P28	Neighborhood Center, Settlement House
51-0477445	Parent Teacher Home Visit Project Inc	B94	Parent Teacher Group
25-1803585	Parkinson Foundation of Western Pennsylvania	G96	Neurology, Neuroscience
95-3818791	Perinatal Advisory Council Leadership Advocacy and Consultati	E24	Hospital (Specialty)
27-5017992	Pets Without Parents Shelter	D20	Animal Protection and Welfare (includes Humane Societies and SPCAs)
86-0172671	Phoenix Country Day School	B24	Primary/Elementary Schools
25-1758627	Pittsburgh Economic and Industrial Development Corporation	S31	Urban, Community
22-2222690	Plainsboro Rescue Squad Inc	E62	Ambulance/Emergency Transport
51-0169168	Plan International Inc	Q33	International Relief
59-2669051	Pop Warner Little Scholars Inc	N40	Sports Training Facilities
56-0942853	Population Services International	Q30	International Development, Relief Services
56-2374399	Port Orford Ocean Resource Team	D05	Research Institutes and/or Public Policy Analysis
41-1598442	Prairie Community Services Inc	P70	Residential, Custodial Care (Group Home)
43-1236557	Preferred Family Healthcare Inc	F20	Alcohol, Drug and Substance Abuse, Dependency Prevention and Treatment
86-1030251	Premier-Career Success	B29	Charter Schools
86-0549101	Prescott Animal Park Association	D50	Zoo, Zoological Society
36-4195126	Presence Central and Suburban Hospitals Network	E21	Community Health Systems
43-0733936	Project Inc	J30	Vocational Rehabilitation (includes Job Training and Employment for Disabled and Elderly)
47-0710092	Project Response Inc	F42	Rape Victim Services
05-0467353	Providence Plan	S20	Community, Neighborhood Development, Improvement

13-3917468	Psychoanalytic Electronic Publishing Inc Joint Venture	A33	Printing, Publishing
13-3935079	PTA New York Congress	B94	Parent Teacher Group
23-7014116	PTA Pennsylvania Congress	B94	Parent Teacher Group
95-4521318	Public Lands for the People	C12	Fund Raising and/or Fund Distribution
46-3327172	Purcell Baseball Softball Association	N63	Baseball, Softball (includes Little Leagues)
27-0120709	Que Tal Language Program	B24	Primary/Elementary Schools
34-1833726	Rails To Trails of Wayne County	N32	Parks and Playgrounds
41-2101423	Ray of Hope Advocacy Center Inc	F42	Rape Victim Services
80-0650308	Reach-NYC	X20	Christian
65-0424304	Rebuilding Together Miami-Dade Inc	L25	Housing Rehabilitation
59-3448411	Recovery House of Central Florida Inc	F22	Alcohol, Drug Abuse (Treatment Only)
84-0632118	Red Brick Council for the Arts	A26	Arts Council/Agency
59-0791037	Rehabilitation Center for Children and Adults	E50	Rehabilitative Medical Services
34-6006424	Rescue Mission of Mahoning Valley	P20	Human Service Organizations
92-0072568	Resource Center for Parents & Children	I72	Child Abuse, Prevention of
04-2763101	Revere Elderly Housing Inc	L22	Senior Citizens' Housing/Retirement Communities
56-6052117	Rex Hospital Foundation Inc	E11	Single Organization Support
31-1254020	Rho Chapter of Sigma Chi Fraternity Scholarship Fund Inc	B82	Scholarships, Student Financial Aid, Awards
20-0616001	Rhodora J Donahue Academy Inc	B24	Primary/Elementary Schools
26-3758815	Richard E Wildish Community Theater	A65	Theater
47-4043799	Rise Up	R99	Civil Rights, Social Action, and Advocacy N.E.C.
55-0539486	Ritchie County Integrated Family Services Inc	P40	Family Services
93-0779926	Rogue Valley Veterans and Community Outreach	P60	Emergency Assistance (Food, Clothing, Cash)

31-0085494	Rome Volunteer Fire Department	M24	Fire Prevention / Protection / Control
34-1574291	Ronald McDonald House Charities Inc	S12	Fund Raising and/or Fund Distribution
68-0462817	Rosemont Playschool Inc	B21	Kindergarten, Nursery Schools, Preschool, Early Admissions
45-4799736	Rural Communities Housing Development Group	S21	Community Coalitions
94-2847211	Sacramento Chinese of Indochina Friendship	A23	Cultural, Ethnic Awareness
59-2515634	Safe Harbor Haven Inc	P70	Residential, Custodial Care (Group Home)
94-2853669	Safequest Solano	P43	Family Violence Shelters and Services
76-0229177	Safety Council of Texas City	E70	Public Health Program
58-2141244	Saint Simons Christian School Inc	B24	Primary/Elementary Schools
23-7366640	Salisbury Symphony Inc	A69	Symphony Orchestras
33-0912735	San Diego Childrens Discovery Museum	A52	Children's Museums
27-4529565	San Diego Youth Foundation	O12	Fund Raising and/or Fund Distribution
94-1546088	San Francisco Center for Psychoanalysis	B99	Education N.E.C.
74-2770972	San Patricio County A & H Auction	O52	Agricultural, Youth Development
59-2443959	Sanctuary Friends Foundation of the Keys Inc	C30	Natural Resource Conservation and Protection
95-2853007	Sand Tots Parent Participation Nursey School Inc	B21	Kindergarten, Nursery Schools, Preschool, Early Admissions
37-1019517	Sarah Bush Lincoln Health Center Guild	E22	Hospital (General)
06-0726487	Save the Children Federation Inc	Q30	International Development, Relief Services
23-2188166	Scenic America	C01	Alliance/Advocacy Organizations
74-1166904	Scott & White Memorial Hospital	E22	Hospital (General)
16-1433495	Scranton Volunteer Fire Company	M24	Fire Prevention / Protection / Control
95-3967876	Screen Actors Guild - American Federation of Television and Radio	A12	Fund Raising and/or Fund Distribution

91-1169836	Seattle Chamber Music Festival	A68		Music
94-3054165	Seeds Community Resolution Center	I51		Dispute Resolution/Mediation Services
82-0356946	Senior Citizens of the Post Falls Area of Kootenai County Inc	P81		Senior Centers/Services
23-2004118	Sheet Metal Workers Joint Apprentice & Training Committee Of	J22		Employment Training
54-1615599	Sheltering Arms Foundation	E24		Hospital (Specialty)
77-0495439	Silicon Valley University	B42		Undergraduate College (4-year)
20-1337670	Silver Spring Day School Inc	B20		Elementary, Secondary Ed
73-1319139	Skiatook Emergency Assistance Center Inc		0.00	0.00
45-1287418	Skills for Chicagolands Future	J99		Employment, Job Related N.E.C.
91-1719293	Slavic International Association of Ministries Good Samaritan	Z99		Unknown
81-0458644	Small Wonder Child Care Inc	P33		Child Day Care
90-0491281	Smoky Hill Child Care Foundation	P33		Child Day Care
41-1449179	Soar Career Solutions	J20		Employment Procurement Assistance and Job Training
06-1818756	Social Tees Animal Rescue Foundation	D20		Animal Protection and Welfare (includes Humane Societies and SPCAs)
34-1925216	Sofia Quintero Art and Cultural Center	A23		Cultural, Ethnic Awareness
56-2049813	South Carolina Association for Community Economic Development	S30		Economic Development
90-0856131	South Central Foundation for Fitness Dance and Arts	N31		Community Recreational Centers
52-1225368	South County Youth Association Incorporated	O20		Youth Centers, Clubs, (includes Boys/Girls Clubs)- Multipurpose
91-1066692	South Hill Soccer Club	N64		Soccer Clubs/Leagues
56-2525079	South Lakes Booster Club	B11		Single Organization Support
59-0872594	South Miami Hospital Inc	E22		Hospital (General)

23-7456860	South Shore Eagles Inc	N68	Winter Sports (Snow and Ice)
74-2230425	South Texas Youth Soccer Association	N64	Soccer Clubs/Leagues
43-1150720	Southeast Missouri Facilities Inc	S50	Nonprofit Management
59-0722789	Southeastern University Inc	B42	Undergraduate College (4-year)
37-1411195	Southern Illinois Research Park Corporation	B11	Single Organization Support
22-2563233	Southern Tier Regional Emergency Medical Services	E62	Ambulance/Emergency Transport
26-2593173	Southside Swarm Volleyball Club Inc	N60	Amateur Sports Clubs, Leagues, N.E.C.
22-3746754	Spark Friends Inc	A80	Historical Societies and Related Activities
73-1554828	Spay Oklahoma Inc	D40	Veterinary Services
06-1681024	Spickard Fire Protection District	M24	Fire Prevention / Protection / Control
56-2181079	Sprott Youth Center Inc	O20	Youth Centers, Clubs, (includes Boys/Girls Clubs)- Multipurpose
39-0806167	St Camillus Health System Inc	E21	Community Health Systems
41-2076312	St Charles Hospital Foundation	E11	Single Organization Support
15-0532245	St Elizabeth Medical Center	E22	Hospital (General)
72-1311329	St Georges Episcopal School Endowment Fund	T30	Public Foundations
43-1763829	St Louis Area Soccer Boosters Inc	N64	Soccer Clubs/Leagues
43-0727700	St Louis Psychoanalytic Institute	F32	Community Mental Health Center
01-6014031	St Marks Home for Women	P75	Senior Continuing Care Communities
14-1505956	St Simeon Foundation Inc	L22	Senior Citizens' Housing/Retirement Communities
63-0288864	St Vincents Birmingham	E22	Hospital (General)
23-7293730	St Vincents Hospital Auxiliary	E11	Single Organization Support
35-2238435	Stephen Breen Memorial Foundation Inc	B82	Scholarships, Student Financial Aid, Awards
74-2431066	Stepping Stones Childrens Center	P33	Child Day Care

46-4740539	Stepping Stones of the Roaring Fork Valley	W99	Public, Society Benefit - Multipurpose and Other N.E.C.
16-1099448	Strickler Road Housing Development Fund Company Inc	L22	Senior Citizens' Housing/Retirement Communities
20-2562193	Strive Preparatory Schools	B29	Charter Schools
23-2610145	Surrey Services for Seniors Inc	P81	Senior Centers/Services
11-2973028	Survivors of the Shield Inc	F60	Counseling Support Groups
45-4380305	Tampa Bay Defense Alliance Inc	W30	Military/Veterans' Organizations
13-1624202	Teachers College Columbia University	B50	Graduate, Professional(Separate Entities)
33-0328599	Team Redlands	N60	Amateur Sports Clubs, Leagues, N.E.C.
62-1662856	Tennessee Hemophilia & Bleeding Disorders Foundation	B12	Fund Raising and/or Fund Distribution
27-1015412	Tennessee Recovery Foundation	I50	Administration of Justice, Courts (Court Administration, Court Reform, Alternatives to Litigation and Sentencing)
48-0806277	Tfi Family Services Inc	P30	Children's and Youth Services
31-1706064	The American Friends of Winchester College	B25	Secondary/High School
25-1306992	The American Ireland Fund	T50	Philanthropy / Charity / Voluntarism Promotion (General)
45-2671486	The Artist Book Foundation	A40	Visual Arts Organizations
54-1960110	The Carmel School	B20	Elementary, Secondary Ed
59-1979509	The Child Care Center Inc	P33	Child Day Care
36-4077528	The Childrens Heart Foundation	G43	Heart and Circulatory System
52-2218789	The Constitution Project	R60	Civil Liberties Advocacy
30-0002632	The Enterprise Center Community Development Corporation	S20	Community, Neighborhood Development, Improvement
45-0228055	The Evangelical Lutheran Good Samaritan Society	E91	Nursing, Convalescent (Geriatric and Nursing)

58-1840748	The Fred J Morganthall II Foundation	Y20	Insurance Providers/Services (other than Health)
38-3773335	The Good Shephard	D20	Animal Protection and Welfare (includes Humane Societies and SPCAs)
31-1645836	The Healthpath Foundation of Ohio	E12	Fund Raising and/or Fund Distribution
22-3506484	The Leah & Edward Frankel Supporting Foundation Inc	T70	Fund Raising Organizations That Cross Categories includes Community Funds/Trusts and Federated Giving Programs) e.g. United Way
20-4820957	The Lloyd Society Inc	V05	Research Institutes and/or Public Policy Analysis
94-3142152	The Marsh A Breeding Ground for New Performance	A65	Theater
43-1830354	The Oasis Institute	P80	Services to Promote the Independence of Specific Populations
06-1490803	The Orchards at Southington Inc	L22	Senior Citizens' Housing/Retirement Communities
27-2302712	The Sustainable Workplace Alliance Inc	M40	Safety Education
52-1884800	The Umbc Research Park Corporation Inc	B05	Research Institutes and/or Public Policy Analysis
25-1561504	The Watson Institute	B28	Specialized Education Institutions/Schools for Visually or Hearing Impaired, Learning Disabled
13-3648312	The Wings Club Foundation Inc	B82	Scholarships, Student Financial Aid, Awards
27-4793304	The World War II Foundation	A20	Arts, Cultural Organizations - Multipurpose
85-0264256	Therapeutic Living Services Inc	P73	Group Home (Long Term
25-0965579	Titusville Area Hospital	E22	Hospital (General)
39-1802123	Tomorrow River Scholarship Foundation Inc	B82	Scholarships, Student Financial Aid, Awards
47-2097494	Translifeline	F40	Hot Line, Crisis Intervention

20-3100410	Traverse City Film Festival	A20	Arts, Cultural Organizations - Multipurpose
42-1419181	Trees Forever Inc	C99	Environmental Quality, Protection, and Beautification N.E.C.
13-2724087	Tremont Crotona Day Care Center	P33	Child Day Care
43-1658589	Tri-County YMCA of the Ozarks	P27	YMCA, YWCA, YWHA, YMHA
20-0802317	Trinity-On-Main Ltd	A20	Arts, Cultural Organizations - Multipurpose
20-3556410	Tropical Health Alliance Foundation	E01	Alliance/Advocacy Organizations
16-1668183	True To Life Foundation	A20	Arts, Cultural Organizations - Multipurpose
04-2103547	Trustees of Boston University	B43	University or Technological
04-2103878	Trustees of the Berkshire Museum	A50	Museum & Museum Activities
93-1321755	Tualatin Valley Youth Football League Inc	N65	Football Clubs/Leagues
13-3253630	Tuxedo Park Fire Department	M24	Fire Prevention / Protection / Control
36-2167937	Ucan	P30	Children's and Youth Services
13-3047544	Ufa Widows & Childrens Fund	B82	Scholarships, Student Financial Aid, Awards
22-2373173	Ulysses Historical Society	A82	Historical Societies & Historic Preservation
58-2169014	United Church Residences of Immokalee Florida Inc	X20	Christian
47-0922758	United Disabled Americans Inc	W20	Government and Public Administration
25-1086801	United Fund of Armstrong County	T70	Fund Raising Organizations That Cross Categories includes Community Funds/Trusts and Federated Giving Programs) e.g. United Way
38-1360585	United Jewish Foundation	T70	Fund Raising Organizations That Cross Categories includes Community Funds/Trusts

			and Federated Giving Programs) e.g. United Way
14-1978956	United States Bowling Congress Inc	N60	Amateur Sports Clubs, Leagues, N.E.C.
06-0771393	United Way of Southeastern Conn Inc	P20	Human Service Organizations
52-1152624	University of DC Foundation	B82	Scholarships, Student Financial Aid, Awards
56-2035485	University of North Carolina School of the Arts Program Support Corp	A19	Nonmonetary Support N.E.C.
75-2300507	University of North Texas Alumni Association Inc	B84	Alumni Associations
99-0240539	University of the Nations Kona Inc	B40	Higher Education Institutions
91-1415660	Upper Valley Mend	P20	Human Service Organizations
45-4128140	Upward Scholars	B41	Community/Junior College
26-0589430	Urban Community Outreachincorporated	P85	Homeless Services/Centers
68-0364021	Vacaville Social Services Corporation	P20	Human Service Organizations
26-2648461	Vail Health System	E21	Community Health Systems
22-3245434	Valley Medical Association	E30	Health Treatment Facilities (Primarily Outpatient)
20-4637094	Veterans Memorial Museum Inc	A50	Museum & Museum Activities
27-3345879	Village at Oasis Park - Phase II Inc	L24	Independent Housing for People with Disabilities
83-0322769	Visitation and Advocacy Center for the 6Th Judicial District	R20	Civil Rights, Advocacy for Specific Groups
38-3172981	Voluntary Optometric Services To Humanity-Michigan	T99	Other Philanthropy, Voluntarism, and Grantmaking Foundations N.E.C.
26-3887973	Volunteers of America Inc	P26	Volunteers of America
62-1471146	Waldens Puddle Inc	D20	Animal Protection and Welfare (includes Humane Societies and SPCAs)
74-2061931	Walker County Fair Association	N52	County / Street / Civic / Multi-Arts Fairs and Festivals
52-1382145	Washington DC Chapter of the Rocks Inc	W30	Military/Veterans' Organizations

62-1441526	Wayne Jolley Ministries Inc	X20	Christian
43-0662529	Webster University	B40	Higher Education Institutions
39-1247092	Wee Wisdom Day Care Center	P33	Child Day Care
77-0722779	West Africa Foundation	P20	Human Service Organizations
52-1839088	Western Howard County Youth Basketball Association Inc	N60	Amateur Sports Clubs, Leagues, N.E.C.
51-0238900	Western Virginia Foundation for the Arts and Sciences	A99	Other Art, Culture, Humanities Organizations/Services N.E.C.
22-2910478	Weston Soccer Club Inc	N64	Soccer Clubs/Leagues
57-0872448	Westover Apartments Inc	L22	Senior Citizens' Housing/Retirement Communities
39-1600531	Westown Association of Milwaukee Inc	S20	Community, Neighborhood Development, Improvement
65-0264660	Wild Dolphin Project Inc	U99	Science and Technology Research Institutes, Services N.E.C.
26-4301793	Wildlife Rehabilitation Center of Northern Utah	D30	Wildlife Preservation/Protection
93-0758252	Willamette Writers	A70	Humanities Organizations
27-1133339	Wish Bone Canine Rescue	D20	Animal Protection and Welfare (includes Humane Societies and SPCAs)
20-5698820	Wolf Creek Foundation	D11	Single Organization Support
02-0492339	Womens Rural Entrepreneurial Network	B60	Adult, Continuing Education
31-1549509	Woodbridge Homes for Elderly Inc	L22	Senior Citizens' Housing/Retirement Communities
27-2807199	World Is Just A Book Away	B99	Education N.E.C.
45-3178623	World Leaders Group Inc	X20	Christian
94-2675140	World Professional Association for Transgender Health Inc	Q30	International Development, Relief Services
31-1715053	Wues Parent Teacher Organization Inc	B94	Parent Teacher Group
30-0332045	Xilin North Shore Chinese School	P84	Ethnic/Immigrant Services

36-4327668	Xilin Northwest Chinese School	B20	Elementary, Secondary Ed
93-0758732	Yamhill Community Action Partnership	P85	Homeless Services/Centers
36-4096295	Yellowstone River Parks Association Inc	C34	Land Resources Conservation
27-0206446	Yeshiva Shaarei Oorah	X30	Jewish
71-0575567	York W Williams Jr Child Development Center Inc	B28	Specialized Education Institutions/Schools for Visually or Hearing Impaired, Learning Disabled
54-2057512	Young Entrepreneurs Organization	B03	Professional Societies & Associations
56-1355492	Youngsville Rescue & EMS	E62	Ambulance/Emergency Transport
36-3620143	Youth Choral Theater of Chicago	A6B	Singing Choral
95-6150002	Youth Unlimited Gospel Outreach	O55	Religious Leadership, Youth Development
39-6795665	Zoological Society of Milwaukee County Endowment Tr	D50	Zoo, Zoological Society

Appendix B: Linearity Assumption Testing

1. Logistic regression Box-Tidwell results for revenue growth rate

	B	SE	Wald	df	p	Odds Ratio	95% CI for Odds Ratio	
							Lower	Upper
Revenue Growth Rate	-.005	.007	.503	1	.478	.995	.982	1.009
Natural Log Transformation of "revgrowth" by Revenue Growth Rate	.001	.001	.730	1	.393	1.001	.999	1.003
Constant	-.697	.152	20.972	1	.000	.498		

2. Logistic regression Box-Tidwell results for program expense ratio

	B	SE	Wald	df	p	Odds Ratio	95% CI for Odds Ratio	
							Lower	Upper
Program Expense Ratio	-.070	.088	.628	1	.428	.932	.784	1.109
Natural Log Transformation of "progexp" by Program Expense Ratio	.012	.017	.507	1	.477	1.012	.979	1.047
Constant	.699	1.067	.430	1	.512	2.013		

3. Logistic regression Box-Tidwell results for fundraising expense ratio

	B	SE	Wald	df	p	Odds Ratio	95% CI for Odds Ratio	
							Lower	Upper
Fundraising Expense Ratio	-.070	.066	1.105	1	.293	.933	.819	1.062
Natural Log Transformation of "fundexp" by Fundraising Expense Ratio	.014	.016	.829	1	.363	1.014	.984	1.046
Constant	-.343	.215	2.539	1	.111	.709		

4. Logistic regression Box-Tidwell results for administrative expense ratio

	B	SE	Wald	df	p	Odds Ratio	95% CI for Odds Ratio	
							Lower	Upper
Administrative Expense Ratio	.045	.041	1.183	1	.277	1.046	.965	1.133
Natural Log Transformation of "adminexp" by Administrative Expense Ratio	-.009	.009	1.082	1	.298	.991	.973	1.008
Constant	-.895	.230	15.140	1	.000	.409		

5. Logistic regression Box-Tidwell results for cash growth rate

	B	SE	Wald	df	p	Odds Ratio	95% CI for Odds Ratio	
							Lower	Upper
Cash Growth Rate	.005	.003	2.206	1	.137	1.005	.999	1.011
Natural Log Transformation of "cashgrowth" by Cash Growth Rate	.000	.000	1.278	1	.258	1.000	.999	1.000
Constant	-1.008	.156	41.918	1	.000	.365		

6. Logistic regression Box-Tidwell results for ratio of cash to total assets

	B	SE	Wald	df	p	Odds Ratio	95% CI for Odds Ratio	
							Lower	Upper
Ratio of Cash to Total Assets	.051	.033	2.331	1	.127	1.052	.986	1.123
Natural Log Transformation of "cashtoassets" by Ratio of Cash to Total Assets	-.010	.007	2.191	1	.139	.990	.976	1.003
Constant	-1.017	.219	21.679	1	.000	.362		

Appendix C: Multicollinearity Assumption Testing

1. Results before corrections.

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients			95.0% Confidence Interval for B		Collinearity Statistics	
		B	Std. Error	Beta	t	Sig.	Lower Bound	Upper Bound	Tolerance	VIF
1	(Constant)	.656	.138		4.754	.000	.385	.927		
	Revenue Growth Rate	4.662E-5	.000	.063	1.601	.110	.000	.000	.985	1.016
	Program Expense Ratio	-.003	.001	-.151	-2.210	.027	-.006	.000	.326	3.069
	Fundraising Expense Ratio	-.004	.003	-.077	-1.675	.094	-.009	.001	.729	1.372
	Administrative Expense Ratio	-.003	.002	-.123	-1.882	.060	-.006	.000	.357	2.802
	Cash Growth Rate	3.947E-5	.000	.064	1.495	.135	.000	.000	.830	1.205
	Ratio of Cash to Total Assets	.000	.000	-.044	-1.113	.266	-.001	.000	.989	1.011
	Ratio of Top Compensation to Total Expenses	-.002	.003	-.049	-.814	.416	-.008	.003	.430	2.326
	Ratio of Disqualified Compensation to Total Compensation	.003	.001	.081	2.071	.039	.000	.006	.991	1.010
	Ratio of Top Compensation to Total Compensation	.001	.001	.063	1.054	.292	-.001	.003	.429	2.328
	Asset Growth Rate	2.605E-5	.000	.049	1.142	.254	.000	.000	.821	1.218

a. Dependent Variable: Significant diversion of assets report (Y/N)

2. Results after corrections.

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients			95.0% Confidence Interval for B		Collinearity Statistics	
		B	Std. Error	Beta	t	Sig.	Lower Bound	Upper Bound	Tolerance	VIF
1	(Constant)	.403	.069		5.832	.000	.267	.538		
	Revenue Growth Rate	4.686E-5	.000	.063	1.607	.109	.000	.000	.985	1.016
	Program Expense Ratio	-.001	.001	-.032	-.824	.410	-.002	.001	.987	1.013
	Cash Growth Rate	3.859E-5	.000	.063	1.460	.145	.000	.000	.831	1.203
	Ratio of Cash to Total Assets	.000	.000	-.046	-1.160	.247	-.001	.000	.990	1.010
	Ratio of Disqualified Compensation to Total Compensation	.003	.001	.085	2.171	.030	.000	.006	.993	1.007
	Ratio of Top Compensation to Total Compensation	.000	.001	.021	.532	.595	-.001	.002	.988	1.012
	Asset Growth Rate	2.409E-5	.000	.046	1.055	.292	.000	.000	.823	1.214

a. Dependent Variable: Significant diversion of assets report (Y/N)

Appendix D: Outlier Assumption Testing

Casewise List[b]

		Observed			Temporary Variable		
Case	Selected Status[a]	Significant diversion of assets report (Y/N)	Predicted	Predicted Group	Resid	ZResid	SResid
142	S	N**	.786	F	-.786	-1.919	-2.395

a. S = Selected, U = Unselected cases, and ** = Misclassified cases.
b. Cases with studentized residuals greater than 2.000 are listed.

Appendix E: Logistic Regression Results

Case Processing Summary

Unweighted Cases[a]		N	Percent
Selected Cases	Included in Analysis	643	100.0
	Missing Cases	0	.0
	Total	643	100.0
Unselected Cases		0	.0
Total		643	100.0

a. If weight is in effect, see classification table for the total number of cases.

Dependent Variable Encoding

Original Value	Internal Value
No Fraud	0
Fraud	1

Block 0: Beginning Block

Classification Table[a,b]

			Predicted Significant diversion of assets report (Y/N)		Percentage
	Observed		No Fraud	Fraud	Correct
Step 0	Significant diversion of assets report (Y/N)	No Fraud	415	0	100.0
		Fraud	228	0	.0
	Overall Percentage				64.5

a. Constant is included in the model.
b. The cut value is .500

Variables in the Equation

		B	S.E.	Wald	df	Sig.	Exp(B)
Step 0	Constant	-.599	.082	52.787	1	.000	.549

Variables not in the Equation

			Score	df	Sig.
Step 0	Variables	Cash Growth Rate	11.763	1	.001
		Revenue Growth Rate	3.293	1	.070
		Program Expense Ratio	1.037	1	.309
		Ratio of Cash to Total Assets	1.569	1	.210
		Ratio of Disqualified Compensation to Total Compensation	4.533	1	.033
		Ratio of Top Compensation to Total Expenses	.192	1	.661
		Asset Growth Rate	3.977	1	.046
	Overall Statistics		21.004	7	.004

Block 1: Method = Enter

Omnibus Tests of Model Coefficients

		Chi-square	df	Sig.
Step 1	Step	24.059	7	.001
	Block	24.059	7	.001
	Model	24.059	7	.001

Model Summary

Step	-2 Log likelihood	Cox & Snell R Square	Nagelkerke R Square
1	812.151[a]	.037	.050

a. Estimation terminated at iteration number 3 because parameter estimates changed by less than .001.

Hosmer and Lemeshow Test

Step	Chi-square	df	Sig.
1	7.158	8	.520

Contingency Table for Hosmer and Lemeshow Test

		Significant diversion of assets report (Y/N) = No Fraud		Significant diversion of assets report (Y/N) = Fraud		
		Observed	Expected	Observed	Expected	Total
Step 1	1	44	45.424	20	18.576	64
	2	41	44.357	23	19.643	64
	3	40	43.647	24	20.353	64
	4	48	43.104	16	20.896	64
	5	39	42.629	25	21.371	64
	6	46	42.290	18	21.710	64
	7	45	41.953	19	22.047	64
	8	43	41.354	21	22.646	64
	9	42	40.209	22	23.791	64
	10	27	30.121	40	36.879	67

Classification Table[a]

			Predicted Significant diversion of assets report (Y/N)		
	Observed		No Fraud	Fraud	Percentage Correct
Step 1	Significant diversion of assets report (Y/N)	No Fraud	406	9	97.8
		Fraud	205	23	10.1
	Overall Percentage				66.7

a. The cut value is .500

Variables in the Equation

		B	S.E.	Wald	df	Sig.	Exp(B)	95% C.I.for EXP(B) Lower	Upper
Step 1[a]	Cash Growth Rate	.001	.000	5.191	1	.023	1.001	1.000	1.001
	Revenue Growth Rate	.000	.000	.676	1	.411	1.000	.999	1.001
	Program Expense Ratio	-.003	.004	.589	1	.443	.997	.990	1.004
	Ratio of Cash to Total Assets	-.002	.002	1.435	1	.231	.998	.994	1.001
	Ratio of Disqualified Compensation to Total Compensation	.013	.006	4.484	1	.034	1.013	1.001	1.026
	Ratio of Top Compensation to Total Expenses	-.002	.008	.080	1	.777	.998	.982	1.014
	Asset Growth Rate	.000	.000	.031	1	.860	1.000	.999	1.001
	Constant	-.396	.307	1.670	1	.196	.673		

a. Variable(s) entered on step 1: Cash Growth Rate, Revenue Growth Rate, Program Expense Ratio, Ratio of Cash to Total Assets, Ratio of Disqualified Compensation to Total Compensation, Ratio of Top Compensation to Total Expenses, Asset Growth Rate.

Appendix F: Descriptive Statistics

Variable	Status	N	Mean	Standard Deviation	Variance	Kurtosis	Skewness	Minimum	Maximum	Confidence Level (95%)
revgrowth	No Fraud	416	0.182	1.056	1.116	58.254	4.458	-7.901	11.854	0.102
	Fraud	228	1.151	10.777	116.148	192.038	13.453	-1.025	156.362	1.406
progexp	No Fraud	416	0.807	0.226	0.051	5.579	-2.339	0.000	1.000	0.022
	Fraud	228	0.787	0.248	0.062	3.064	-1.870	0.000	1.000	0.032
fundexp	No Fraud	416	0.031	0.092	0.008	60.613	6.873	0.000	1.000	0.009
	Fraud	228	0.026	0.076	0.006	56.631	6.548	0.000	0.817	0.010
adminexp	No Fraud	416	0.153	0.198	0.039	9.618	2.960	0.000	1.000	0.019
	Fraud	228	0.152	0.185	0.034	5.907	2.269	0.000	1.000	0.024
cashgrowth	No Fraud	416	0.632	6.480	41.993	365.656	18.622	-2.278	128.311	0.625
	Fraud	228	2.004	9.662	93.361	46.455	6.467	-1.666	84.133	1.261
assetgrowth	No Fraud	416	0.056	0.380	0.145	35.913	3.718	-1.250	4.114	0.037
	Fraud	228	1.543	15.172	230.198	150.126	11.912	-1.000	204.402	1.980
cashassets	No Fraud	416	0.379	0.363	0.132	-1.074	0.600	-0.423	1.000	0.035
	Fraud	228	0.329	0.668	0.446	118.668	-9.196	-8.222	1.000	0.087
topcompexp	No Fraud	416	0.056	0.109	0.012	20.140	3.743	0.000	1.000	0.010
	Fraud	228	0.052	0.099	0.010	6.477	2.516	0.000	0.523	0.013
topcomptotal comp	No Fraud	416	0.162	0.281	0.079	2.751	1.954	0.000	1.000	0.027
	Fraud	228	0.167	0.300	0.090	2.716	1.985	0.000	1.000	0.039
disqualified	No Fraud	416	0.013	0.107	0.011	74.205	8.616	0.000	1.000	0.010
	Fraud	228	0.036	0.170	0.029	22.403	4.828	0.000	1.000	0.022