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Sustainable Revenue Generation System for Nonprofit Institutions of Higher Education

Graig Arcuri
Walden University

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Walden University
2014
Abstract
Sustainable Revenue Generation System for Nonprofit Institutions of Higher Education
by
Graig Arcuri

MBA, University of Phoenix
BS, Siena College

Dissertation Submitted in Partial Fulfillment
of the Requirements for the Degree of
Doctor of Philosophy
Management

Walden University
December 2014
Abstract

Social and individual spending on higher education has outpaced social and individual economic growth, resulting in nonprofit institutions of higher education (NIHEs) growing increasingly dependent upon unsustainable governmental subsidies and tuition increases. The purpose of this study was to examine the interactions among components of the nonprofit university system, existing revenue generation methods, and sustainability of revenue generation, thereby generating a new sustainable revenue theory for nonprofit universities within the United States. This qualitative grounded theory study used a multiphase design incorporating data from the literature review, historical documents, and phone interviews from a theoretical sampling of 10 NIHEs. Participants were 20 faculty, 40 students, 40 administrative staff, and 20 members of the business community. Analysis included open, focused, axial, and theoretical coding. The study’s findings theorize that a sustainable revenue generation system must continually include, and respond to, the multidirectional interactions of all system components as they change over time, including businesses. The result of the multidirectional connectivity between all of the system components was increased revenue for NIHEs and reduced student and government-funded tuition. Additionally, an organizational culture that is incongruent with change has been identified in NIHEs and must be mitigated. The findings of this study could positively affect NIHEs by providing a sustainable and adaptable system for improving revenue generation while increasing affordability and accessibility for students of these institutions, which, in turn, may produce positive social change.
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Dedication

I dedicate this study to my family and wish to thank my family for their support and encouragement during my doctoral journey. Furthermore, I thank my friends, fellow students, professors, students, academic associates, business associates, and acquaintances in general, for their support and numerous perspectives. Finally, I am eternally grateful for the gift of being human and for the curiosity, soul, creativity, and potential that are uniquely human.
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I wish to thank the members of my committee for the essential contributions they made during my doctoral journey. Dr. Carol Wells served as my dissertation committee chair, methodology expert, and mentor during this journey. Dr. Wells, while requiring excellence, was always supportive and quick to respond to my various communications. The support, compassion, expert commentary, leadership, and guidance from Dr. Wells were instrumental in completing my doctoral journey. Dr. Judith Forbes served as a member of my dissertation committee and content expert. The commentary of Dr. Forbes significantly increased the quality of my work. In addition, Dr Forbes’s perspective was a perfect complement to that of Dr. Wells. As university research reviewer, Dr. David Bouvin made the significant contribution of ensuring that my dissertation met graduate-level expectations.

In addition, I wish to thank all of the researchers whose work I reviewed during my doctoral journey. Further, I am thankful to the individuals who participated in this study for their willingness to share their perceptions and time. The contributions of these individuals were primary to my study.
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Chapter 1: Introduction to the Study

This qualitative study used a grounded theory approach to examine the interactions among components of the nonprofit institutions of higher education (NIHE) system, existing revenue generation methods, organizational change, and sustainable revenue generation in an effort to generate a new sustainable revenue theory for NIHEs within the United States that is responsive to component interactions. Sustainability of revenue generation in this context represents endurance and adaptability of revenue generation, over time measured in decades, as well as effective responsiveness to both internal and external environmental factors and stakeholders or components. For a new revenue generation theory for NIHEs to be sustainable, the system requires not only effectiveness and efficiency in the present time, but also continual adaptability in the future (Beinhocker, 2006). New revenue-generating systems for NIHEs must focus on connectivity, coevolution, reinforcing cycles, and self-organization (Luoma, 2006). The proactive nature of a sustainable revenue generation system is based on a constant flow of the “total capabilities and knowledge among all the fractals [components]. This integration of knowledge means that each fractal [component] must be kept constantly abreast of all significant events” (Shoham & Hasgall, 2005, p. 230). The findings of this qualitative grounded theory study theorize that a sustainable revenue generation system must continually include, and respond to, the multidirectional interactions of all system components as they change over time, including businesses. The result of the multidirectional connectivity between all of the system components was increased revenue for NIHEs and reduced student and government-funded tuition. Additionally, an
organizational culture that is incongruent with change has been identified in NIHEs and must be mitigated.

The rationale for the study was that social and individual spending on higher education has outpaced social and individual economic growth, resulting in NIHEs growing increasingly dependent upon unsustainable governmental subsidies and tuition increases. The study fills a significant gap because current research into the interactions between the components of the NIHE system, as they relate to methods of sustainably generating revenue for NIHEs, is very limited. Specific qualitative research questions addressed the perceptions of the participants to determine their responses to various components of revenue generation. Current and scholarly literature on revenue generation models, revenue generation, historical financial data, and organizational change management provided the conceptual framework for the study. In addition to the literature review, this study included historical data and telephone interviews. Analysis included open, focused, axial, and theoretical coding. The findings of this study could positively affect NIHEs by providing a sustainable and adaptable system for improving revenue generation while increasing affordability and accessibility for students of these institutions, which in turn could produce positive social change. In this chapter, information regarding the background of the study, problem statement, purpose of the study, nature of the study, research questions, conceptual framework, definition of terms, and significance of the study is presented.

In Chapter 1, I briefly discuss the background of revenue generation in NIHEs. I describe the effects of the current methods of revenue generation as well. The
background of the study sets the stage for the problem statement, the purpose of the study, the nature of the study, and the three research questions. I then provide the conceptual framework, definition of terms, assumptions, limitations, delimitations, and the significance of the study for positive social change.

**Background of the Study**

Societal value, personal value, access, affordability, and NIHE financial stability are important aspects of the higher educational system. The value of higher education to both individuals and society is significant and multifaceted, as higher education increases the skill levels of both the individual and society as a whole (Alstadsæter, 2011).

According to Vogel and Keen (2010),

> The formation of human capital is one of the underlying foundations of modern economic growth theory (Mankiw, Romer, & Weil, 1990, 1992; Romer, 1989). Analysts such as Florida (2002) go a step further and suggest that a highly educated populace is a necessary condition for the development of a “creative economy,” which he defines as one dominated by knowledge, information, and innovation. (p. 384).

Access to and affordability of higher education in the United States have been negatively affected by the continual use of decades-old linear and static revenue generation models in institutions of higher education (Weisbrod & Asch, 2010). Because social and individual spending on higher education has outpaced social and individual economic growth, nonprofit institutions of higher education have grown dependent upon governmental subsidies and tuition as major sources of revenue generation (Liu &
Dubinsky, 2000). Due to the worldwide realization that spending must be in line with revenue, governmental subsidies are being reduced, and resistance to increases in tuition is growing. In order to adapt to the changing environment and meet the goal of sustainable quality education, nonprofit institutions of higher education in the United States must move to a revenue-generating system that is more in line with an educational mission, as well as one that is not heavily dependent upon governmental subsidies, endowments, tuition, and student recruitment. However, current research into the interactions among the components of the NIHE system as they relate to methods of sustainably generating revenue for NIHEs is very limited.

The study examined the overall system-based comparative interactions among components of the nonprofit university system, existing revenue generation, and sustainability of revenue generation, all in an effort to generate a new sustainable revenue theory and determine the potential effects of this theory on nonprofit universities within the United States. Various existing research was incorporated into this study, including that of Bold (2011), Oliver and Hyun (2011), Barrett (2010), Stame (2010), Grant and Marshak (2011), and Cohen (2010). In addition to the literature review, this study was composed of two dynamic multidirectional qualitative phases, namely collection and analysis of IRS Form 990s that had been filed by NIHEs and phone interviews. The findings of this study could positively affect NIHEs by providing a sustainable and adaptable system for improving revenue generation while increasing affordability and accessibility for students of these institutions, which in turn could produce positive social change.
Problem Statement

The decline in traditional revenue generators in NIHEs, coupled with increased tuition rates, has resulted in (a) a demand for new sources of revenue, (b) a decrease in the affordability of higher education for many students, and (c) an organizational focus on revenue generation rather than the NIHEs’ core mission of education. In order to mitigate these issues, NIHEs need to create revenue in a sustainable, adaptable, and systemic fashion that is congruent with all components of the NIHE system and educational mission (Luoma, 2006; Shoham & Hasgall, 2005; Weisbrod & Asch, 2010). Without a new and sustainable revenue generation system, higher education in the United States will struggle and decline as citizens become increasingly less able to compete in a global economy. However, current research into the interactions among the components of the NIHE system as they relate to methods of sustainably generating revenue for NIHEs is very limited. For these reasons, the goal of this study was to understand the overall system-based interactions among components of the NIHE system, existing revenue generation methods, organizational change and sustainability of revenue generation, all in an effort to generate a new sustainable revenue theory for NIHEs.

Purpose of the Study

The purpose of this qualitative, grounded theory study was to examine the interactions among components of the nonprofit university system, existing revenue generation methods, and sustainability of revenue generation, all in an effort to generate a new sustainable revenue theory for nonprofit universities within the United States. Currently, research into the interactions among the components of the NIHE system as
they relate to methods of sustainably generating revenue for NIHEs is very limited. In order to generate a new theory regarding the interactions of components of the NIHE system, where research is very limited, a grounded theory study of the interactions among components of the NIHE system is required. The development of a revenue generation theory that includes the interactions among components of the NIHE system will enable NIHEs to (a) find new sources of revenue, (b) increase the affordability of higher education for many students, and (c) have an organizational focus on the NIHEs’ core mission of education, rather than revenue generation. This qualitative study with a grounded theory approach used a multiphase design incorporating theoretical sampling of 10 nonprofit institutions of higher education (NIHEs). Participants were 20 faculty, 40 students, 40 administrative staff, and 20 members of the business community.

**Research Questions**

This study explored the following research questions from a qualitative perspective.

1. What are the interactions between components of the NIHE system and revenue generation?
2. What are the interactions among components of the NIHE system, the current methods of revenue generation, and organizational change?
3. How can an analysis of the interactions identified in the first two questions be used to generate, inductively, a revenue generation theory, and how may this theory affect NIHEs?
The study may positively affect U.S.-based NIHEs by suggesting a sustainable and adaptable system for improving revenue generation while increasing affordability and accessibility for students of these institutions, which in turn may produce positive social change.

**Conceptual Framework**

This study was grounded by several concepts. First, with very limited research into new and sustainable revenue generation systems, NIHEs have maintained decades-old linear and static revenue generation models that have left them vulnerable to the current problems of declining investments, tighter credit, fewer charitable contributions, declining public funding, and more student financial need leading to a downward pressure resulting in decreased tuition revenue (Weisbrod & Asch, 2010, p. 24). As stated earlier in this chapter, without a new and sustainable revenue generation system that is congruent with all components of NIHE system, higher education in the United States will struggle and decline as citizens become increasingly less able to compete in a global economy. Major revenue generators for nonprofit universities in the United States include grants and governmental subsidies, endowments, tuition, student recruitment, intellectual property, partnering using marketable intellectual property, partnering with industry, and technology transfer. Additionally, exploring organizational behavior, organizational change, and revenue generation in higher education from the perspective of understanding costs and enrollment is important, as costs and enrollment represent a critical aspect of the overall higher educational system. Understanding the current organizational culture regarding change is additionally important because the effective
implementation of a new revenue generation theory is highly dependent upon an organization’s ability to change. The preceding concepts provided the conceptual framework for this grounded theory study.

There are several perspectives involving the use of a literature review for grounded theory studies. Glaser and Strauss (1967) proposed that grounded theory can be restrained by beginning the research process with a literature review; however, Charmaz (2006) advocated beginning the grounded theory research process with a literature review of the subject matter. Glaser (1998) suggested that a literature review is often irrelevant to grounded theory research. Glaser (2010a) posited that a grounded theory literature review is not used to identify gaps in the research but does provide rationale and context for the study. Moreover, Glaser (2010b) recommended that the literature review be used as data with constant comparative analysis to develop categories. In keeping with the approach of Charmaz (2006) and Glaser (1998, 2010a, 2010b), a review of relevant literature is included. Moreover, in keeping with Glaser (2010a, 2010b) and the limited amount of current literature, the literature review includes literature that was published more than 5 years ago.

In an effort to include all components of the NIHE system and generate a theory, I drew upon literature including organizational behavior, organizational change, and specific revenue generators in developing the conceptual framework for this study. Chapter 2 includes articles and prior research from many authors, including Lee (2008), Weisbrod and Asch (2010), Archibald and Feldman (2008), Holley and Harris (2010),
and Humphrey (2006). As an example, after stressing the requirement for institutions of higher education to identify new methods of generating revenue, Barrett (2010) stated,

> The market environment in which higher education operates is competitive for both revenue and students. This situation presents immense challenges as well as opportunities for higher education leaders who possess the skills and can marshal the needed resources to shift their institutions' focus away from the traditional methods of revenue generation and identify new and expanding opportunities which are unique, marketable, and profitable. (p. 28)

Further detailing the market environment, Barrett (2010) identified eight emerging threats that universities must mitigate: (a) shrinking enrollment, (b) rising costs, (c) demographic changes, (e) online competition, (f) a difficult fundraising environment, (g) accreditation pressures, (h) recruiting needs, and (i) decreasing state and federal funding (p. 28). As a result of the analysis by Barrett (2010), competitive intelligence (CI) is one tool that will aid in the creation of revenue while mitigating some of the threats. Randall and Coakley (2007) determined that “leadership in today's academia should take into account the needs and demands of various stakeholders… [and] … for the institution to flourish in today's environment … requires innovation and input from all relevant stakeholders” (p. 326). Oliver and Hyun (2011) concluded that the interactions of components within an institution of higher education can promote organizational change (p. 2); however, Oliver and Hyun also concluded that widespread collaboration between groups in institutions of higher education is incongruent with the current organizational culture of higher education institutions. The bidirectional interdependency of student needing employer,
employer needing student, university needing student, and employer needing university clearly highlights the importance of the interactions between components of the nonprofit university system, as well as the importance of communication between stakeholders in institutions of higher education as identified by the research of Smith and Wolverton (2010). In their paper, Pathak and Pathak (2010) “proposed that the academic process can be unbundled into discrete components which have well developed measures” (p. 166). For a new revenue generation theory for nonprofit institutions of higher education to be sustainable, the system requires not only effectiveness and efficiency in the present time, but also continual adaptability in the future (Beinhocker, 2006). Beinhocker (2006) determined that in order for organizations to improve their longevities as high performers, they must find a way to adapt to the environment as change occurs in the future. Through a systems thinking approach, adaptability to a complex and chaotic future is enabled. In addition, the literature review is reflective of the research questions.

Qualitative research questions for this study were essential. Research questions provide measures of the data generated by the study, identify the range of the research, present evidence to positively assess the study, and must match the research methodology (Hurt & McLaughlin, 2012). Yin (2009) identified how, what, and why questions as exploratory questions suitable for qualitative studies. Furthermore, grounded theory is used to generate a theory inductively from data where little is already known, as well as for analyzing and organizing data in a fashion that enables theory generation (Corbin & Strauss, 2008). Therefore, because current research into the interactions between the components of the NIHE system as they relate to methods of sustainably generating
revenue for NIHEs is very limited, a grounded theory approach with theoretical sampling was incorporated into this study.

**Nature of the Study**

This study used a qualitative, grounded theory research methodology composed of two dynamic multidirectional qualitative phases, namely (a) collection and analysis of IRS Form 990s that had been filed by NIHEs and (b) phone interviews. Mello and Flint (2009) determined that human interactions are best explored using qualitative methods as quantitative data would be missing, would be hard to obtain, or would not provide the data needed. The experiences of the individual, as well as how the individual analyzes and describes experiences, are what is sought and valued by the qualitative researcher (Patton, 1991). Because this study explored human interactions and human phenomena within particular social phenomena in which people work and live, namely revenue generation and NIHEs, qualitative research was the most appropriate. One of the major qualitative methods, grounded theory, can be used to gain insights into phenomena and to discover and understand the meanings and concepts surrounding a subject (Charmaz, 2006; Mello & Flint, 2009). Currently, research into the interactions between the components of the NIHE system as they relate to methods of sustainably generating revenue for NIHEs is very limited. In order to generate a new theory regarding the interactions of components of the NIHE system, where research is very limited, a grounded theory study of the interactions between components of the NIHE system was required. Charmaz (2006) determined that although detailed research plans are inconsistent with grounded theory methods, institutional review boards are requiring
sufficient detail to assure that no harm will come to research participants and to ensure a successful and defendable research project (p. 30). Therefore, in keeping with the grounded theory method that discourages detailed research plans and the need for institutional review board and committee approval, prior to the beginning of data collection, only a general description of the research plans was provided.

Beginning with historical data, priority was given to the qualitative data, as these data provide an opportunity to understand how humans perceive and act, both organizationally and individually, in the current higher educational revenue generation system, as well as how humans may perceive and act in a higher educational system that has a new revenue generation system as a component. The population for this qualitative study was composed of participants who were (a) students, faculty, and administrative personnel from private nonprofit institutions of higher education located within the United States and stratified by region, private or public, and size of student population and (b) individual business leaders, stratified by region, industry, and number of employees. The qualitative data derived from the literature review, historical data, and phone interviews of this study were coded with either descriptive or analytical codes that identify an attribute, theme, category, explanation, or configuration regarding revenue generation in NIHEs, as well as each of the three research questions. NVivo and Excel were used to store, link, and analyze the data, as well as the various levels of codes. Prior to any data collection efforts, I requested and received Internal Review Board approval number 07-02-13-0064846 from Walden University.
**Definition of Terms**

Throughout this study, the following key terms are used:

*Administration personnel:* Represents any current full-time member of the nonteaching staff of a NIHE.

*Business leader:* Represents any owner or senior manager of a business located within the United States.

*Connectivity:* Represents the quality, state, or capability of being connective or connected (“Connectivity,” n.d.).

*Existing revenue generation:* Represents the major current methods of creating revenue for nonprofit institutions of higher education in the United States.

*Faculty:* Represents any current full-time member of the teaching staff of a NIHE.

*Interaction:* Represents the meaning set forth by Meltzer, Petras, and Reynolds (1975), who determined that human behavior must be analyzed from both overt and covert dimensions as a process that involves interpretative thought and observable action, as well as the two dimensions of interaction, namely the internal thought process and external action.

*Nonprofit institution of higher education (NIHE):* Represents the collection of all components of a private (not public) nonprofit institution of higher education (college or university) located within the United States, including both internal and external stakeholders.

*Participant position:* Represents the four strata of participants, namely student, faculty, administration personnel, and business leader.
Revenue: Represents the total amount of money received or recognized by a NIHE with one fiscal year.

Revenue generation: Represents the process of creating revenue.

Student: Represents any current full-time student of a NIHE who is 18 years of age or older.

Sustainability of revenue generation: Represents endurance and adaptability of revenue generation, over time measured in decades, as well as effective responsiveness to both internal and external environmental factors and stakeholders.

Assumptions

Various assumptions were made in this study. My preconceived assumptions, as well as theoretical assumptions are generally not made in a grounded theory study; rather, the research itself determines the theoretical basis for the process under examination (Creswell, 2007; Strauss & Corbin, 1998). However, several operational assumptions were made within this study. As an example, although supported by the literature review contained in Chapter 2, one of the major operational assumptions in this study was that NIHEs currently need a method or model of revenue generation that is both sustainable and effective in the current economic environment. An additional assumption that is supported by Chapter 2 was that current research into the interactions between the components of the NIHE system as they relate to methods of sustainably generating revenue for NIHEs is very limited. This assumption was a major factor in determining which qualitative approach to use, namely grounded theory, as well as the focus of the study. Other assumptions included the operational definitions of several terms, including
sustainability of revenue generation, as defined in the preceding section. One final assumption was that participants were willing and able to articulate responses to interview questions.

Scope and Delimitations

Many different types of institutions of higher education, including for-profit, public, and nonprofit, may need to create revenue in a sustainable, adaptable, and systemic fashion that is congruent with an educational mission, as well as the governmental and global realization that spending must be in line with revenue. However, this study was limited to private nonprofit institutions of higher education that are located within the United States. The major reasons for this limitation were twofold. First, the population of all institutions of higher education is very large. Second, the population of all institutions of higher education is very diverse, with particular organizational differences related to culture among for-profit, nonprofit, and public schools.

Limitations

This study was limited in several ways. Because grounded theory is used to develop or generate a theory inductively from data where little is already known, generally from small samples, care should be taken when generalizing the findings, and additional empirical research should be performed (Creswell, 2007; Strauss & Corbin, 1998). Another limitation was that the results of this study represent the perceptions and experiences of the participants. Researcher bias was also a limitation of this study. Another limitation of this study was caused by the use of a small purposeful sample of
participants for the phone interviews, instead of a random sample. In an effort to mitigate these limitations and increase trustworthiness, a number of strategies were incorporated into this study to ensure dependability, credibility, transferability, and confirmability. As described in Chapter 3, in the Threats to Data Quality section, dependability was enhanced through the use of (a) dependable data collection methods; (b) the triangulation of multiple sources of data, namely the literature review, phone interview, and historical data; and (c) audit trails, where the researcher keeps a research journal that includes the process of data collection, data analysis, and coding. Transferability, “the degree to which the results of qualitative research can be generalized or transferred to other contexts or settings” (Trochim & Donnelly, 2008, p. 149), was enhanced by adhering to the data collection and analysis procedures, as well as the inclusion of thick description. NVivo was used in an effort to collect, organize, and analyze the data. In keeping with Bennett’s (2010) methods, credibility was enhanced by (a) triangulation of multiple sources of data, namely the literature review, phone interview, and historic data, and (b) member checking (p. 53). Member checking was used to as a technique to validate the interpretations and conclusions of the qualitative data by asking participants to verify my interpretations of the data. As a strategy for ensuring data quality, member checking “is perhaps the most important strategy for determining the credibility of the researcher’s interpretation of the participants’ perceptions” (Teddlie & Tashakkori, 2009, p. 213). In order to establish confirmability, researchers must “disclose their role (i.e., reflexivity) and [the role’s] impact on the interpretations they make in a study” (Creswell & Plano Clark, 2010, p. 267). However, with this knowledge, the negative effects of the bias can
be mitigated, while the positive aspects of the researcher being an important part of the qualitative research process can be enhanced.

**Significance of the Study**

**Significance to Practice**

This study is significant to practice because the results of this study, which include a new sustainable revenue generation theory, may significantly change how NIHEs generate revenue, manage organizational change, determine tuition rates, manage the interactions among system components, and allocate resources. Current research into the interactions among the components of the NIHE system, as they relate to methods of sustainably generating revenue for NIHEs, is very limited and does not identify a sustainable revenue generation model. Furthermore, access to and affordability of higher education in the United States have been negatively affected by the continual use of decades-old linear and static revenue generation models in institutions of higher education (Weisbrod & Asch, 2010). These decades-old linear revenue generation models have left institutions of higher education vulnerable to the current “perfect storm of falling investments, credit tightening, declining private contributions from individuals and corporations, declining state funding, and increased student financial need leading to decreased tuition revenue” (Weisbrod & Asch, 2010, p. 24). However, the findings of this study provide a basis for the mitigation of these issues.

**Significance to Theory**

This study is significant to theory because the results of this study generated a new theory. This new theory indicates that a sustainable revenue generation system must
continually include, and respond to, the multidirectional interactions of all system components as they change over time, including businesses, and that the result of this connectivity is both increased revenue and reduced student and government-funded tuition. This new theory facilitates an understanding of the overall system-based interactions among components of the nonprofit university system, existing revenue generation methods, and sustainability of revenue generation, and will enable the development of a specific revenue model for each nonprofit university within the United States.

**Significance to Social Change**

This study is significant to social change because the results of this study, which include a new sustainable revenue generation theory, may significantly enable NIHEs to become more effective institutions of higher education, as well as more effective components of society. The value of higher education to both individuals and society is significant and multifaceted, as higher education increases the skill level of the individual as well as society (Alstadsæter, 2011). Without a new and sustainable revenue generation system that is congruent with all components of the higher educational system, higher education in the United States will struggle and decline as citizens become increasingly less able to compete in a global economy. Furthermore, the findings of this study could significantly decrease tuition rates while increasing revenue for universities, thereby increasing both affordability and accessibility, which in turn could produce positive social change. Other possible results of this study that may produce positive social change include (a) an increase in the number of students, (b) positive effects on the
economy, (c) a decrease in the barriers to entering a NIHE for students, (d) the potential for more effective academic programs, (e) increased revenue for companies/employers, (f) a decrease in the amount of student loans, (g) a decrease in the amount of financial support from families, (h) an increase in opportunities for research, and (i) NIHEs with an increased focus on the mission of education. Additionally, the results of this study may be useful to other societies that have a certain amount of cultural similarity with the United States, such as certain countries in Europe.

Summary and Transition

This chapter contains an overview of the study, which examined the overall system-based interactions among components of the NIHE system, existing revenue generation methods, organizational change, and sustainability of revenue generation in an effort to generate a new sustainable revenue theory for NIHEs within the United States. Current and scholarly literature on revenue generation models, revenue generation, historical financial data, and organizational change management provided the conceptual framework for the study. This study included historical data and qualitative telephone interviews. The study fills a significant gap because current research into the interactions among the components of the NIHE system as they relate to methods of sustainably generating revenue for NIHEs is very limited. Chapter 2 contains a review of relevant literature pertaining to certain aspects of the overall system-based interactions among components of the NIHE system, existing revenue generation methods, and sustainability of revenue generation in NIHEs. Chapter 3 contains a description of the research methods that were employed in this qualitative study, as well as data collection
instruments. Chapter 4 provides a description of the data collection, analysis approach, and study findings. Chapter 5 provides a summary of the study findings, conclusions, and recommendations.
Chapter 2: Literature Review

No studies emerged from the literature review that addressed the interactions among all of the components of the NIHE system as they relate to methods of sustainably generating revenue for NIHEs. Nor had a grounded theory study been conducted to inform a sustainable revenue generation model. Furthermore, the research into the interactions among some of the components of the NIHE system as they relate to methods of sustainably generating revenue for NIHEs is very limited and spread over a period of more than 5 years. Moreover, this literature review identifies numerous calls for new and sustainable methods of revenue generations. Additionally, in an effort to clearly explore the gap and identify constructs, the components of the NIHE system as well as the current methods of revenue generation are identified.

Literature Search Strategy

In an effort to fill the gap in current research and generate a new theory, first one must identify and review the existing literature, limited or not. In order to identify literature that was ideally not more than 5 years old, scholarly, and peer reviewed, I used the Walden University Library, as well as other local area libraries, to search for articles with a combination of key words in the abstract including change management, change, revenue generation, nonprofit, higher education, economic models, education in the United States, higher educational systems, systems thinking, adaptable organizations, cross cultural, leadership, and change implementation. Additionally, several databases were used, including ERIC, Education Research Complete, Thoreau, ABI/INFORM Complete, PsycINFO, ScienceDirect, Emerald Management Journals, LexisNexis
Academic, SAGE, and ProQuest Central. Nevertheless, only limited literature was identified at this time, with much of the identified literature more than 5 years old and the current literature only pertaining to certain aspects of the overall system-based interactions among components of the nonprofit university system, existing revenue generation methods, and sustainability of revenue generation in NIHEs. However, various current research was incorporated into this study, including that of Bold (2011), Oliver and Hyun (2011), Barrett (2010), Stame (2010), Grant and Marshak (2011), and Cohen (2010).

This literature review focuses on three main areas: (a) higher educational system and organizational change, (b) revenue generation, and (c) change management. In the end, this literature review identifies a clear gap in empirical research between existing methods of revenue generation and the interactions among the components of the NIHE system as they relate to methods of generating revenue for NIHEs that are effective and sustainable in the current economic environment. Randall and Coakley (2007) determined that “leadership in today's academia should take into account the needs and demands of various stakeholders ... [and] ... for the institution to flourish in today's environment ... requires innovation and input from all relevant stakeholders” (p. 326). Furthermore, this literature review identifies numerous calls for new and sustainable methods of revenue generation from researchers such as Rollwagen (2010), who stated that higher education institutions must “diversify their sources of income in order to live up to their mission as purposeful institutions in the emerging knowledge economy” (p. 11), and Jones and Wellman (2010), who argued that the financial “problems affecting
higher education are not short-term but structural. … born of bad habits and an inattention to strategic financing and resource allocation” (p. 9). The research of Rollwagen (2010) as well as Jones and Wellman (2010) also supports the assertion of this literature review that a lack of current and relevant research into the interactions between the components of the NIHE system currently exists, as the components relate to methods of sustainably generating revenue for NIHEs, as well as methods of sustainably generating revenue for private nonprofit universities and colleges in the United States.

**Conceptual Framework**

The following concepts provide the conceptual framework for this grounded theory study. First, with very limited research into new and sustainable revenue generation systems, NIHEs have maintained decades-old linear and static revenue generation models that have left them vulnerable to the current problem of declining investments, tighter credit, fewer charitable contributions, declining public funding, and more student financial need leading to a downward pressure resulting in decreased tuition revenue (Weisbrod & Asch, 2010, p. 24). Without a new and sustainable revenue generation system that is congruent with all components of NIHE system, higher education in the United States will struggle and decline as citizens become increasingly less able to compete in a global economy. Major revenue generators for nonprofit universities in the United States include grants and governmental subsidies, endowments, tuition, student recruitment, intellectual property, partnering using marketable intellectual property, partnering with industry, and technology transfer. Additionally, exploring organizational behavior, organizational change, and revenue generation in higher
education from the perspective of understanding costs and enrollment is important, as costs and enrollment are critical aspects of the overall higher educational system. Understanding the current organizational culture regarding change is additionally important because the effective implementation of a new revenue generation theory is highly dependent upon an organization’s ability to change.

There are several perspectives involving the use of a literature review for grounded theory studies that frame this study. Glaser and Strauss (1967) proposed that grounded theory can be restrained by beginning the research process with a literature review; however, Charmaz (2006) advocated beginning the grounded theory research process with a literature review of the subject matter. Glaser (1998) suggested that a literature review is often irrelevant to grounded theory research. Glaser (2010a) suggested that a grounded theory literature review is not used to identify gaps in the research but does provide rationale and context for a study. Moreover, Glaser (2010b) recommended that the literature review be used as data with constant comparative analysis to develop categories. In keeping with the approach of Charmaz (2006) and Glaser (1998, 2010a, 2010b), a review of relevant literature is included. Moreover, in keeping with Glaser (2010a, 2010b) and the limited amount of current literature, the literature review includes literature that was published more than 5 years ago.

In an effort to include all components of the NIHE system and generate a theory, literature including organizational behavior, organizational change, and specific revenue generators provides additional conceptual framework for this study. This chapter includes articles and prior research from many authors, including Lee (2008), Weisbrod and Asch
As an example, after stressing the requirement for institutions of higher education to identify new methods of generating revenue, Barrett (2010) stated,

"The market environment in which higher education operates is competitive for both revenue and students. This situation presents immense challenges as well as opportunities for higher education leaders who possess the skills and can marshal the needed resources to shift their institutions' focus away from the traditional methods of revenue generation and identify new and expanding opportunities which are unique, marketable, and profitable." (p. 28)

Further detailing the market environment, Barrett (2010) identified eight emerging threats that universities must mitigate: (a) shrinking enrollment, (b) rising costs, (c) demographic changes, (e) online competition, (f) a difficult fundraising environment, (g) accreditation pressures, (h) recruiting needs, and (i) decreasing state and federal funding (p. 28). As a result of the analysis by Barrett (2010), Barrett concluded that competitive intelligence (CI) is one tool that will aid in the creation of revenue while mitigating some of the threats. Randall and Coakley (2007) determined that “leadership in today's academia should take into account the needs and demands of various stakeholders … [and] … for the institution to flourish in today's environment … requires innovation and input from all relevant stakeholders” (p. 326). Oliver and Hyun (2011) concluded that the interactions of components within an institution of higher education can promote organizational change (p. 2); however, Oliver and Hyun also concluded that widespread collaboration among groups in institutions of higher education is incongruent with the current
organizational culture of higher education institutions. The bidirectional interdependency of student needing employer, employer needing student, university needing student, and employer needing university clearly highlights the importance of the interactions among components of the nonprofit university system, as well as the importance of communication among stakeholders in institutions of higher education as identified by the research of Smith and Wolverton (2010). In their paper, Pathak and Pathak (2010) “proposed that the academic process can be unbundled into discrete components which have well developed measures” (p. 166). For a new revenue generation theory for nonprofit institutions of higher education to be sustainable, the system not only requires effectiveness and efficiency in the present time, but also continual adaptability in the future (Beinhocker, 2006). Beinhocker (2006) determined that in order for organizations to improve their longevities as high performers, they must find a way to adapt to the environment as change occurs in the future. Through a systems thinking approach, adaptability to a complex and chaotic future is enabled. In addition, the literature review is reflective of the research questions.

Qualitative research questions for this study were essential. Research questions provide measures of the data generated by the study, identify the range of the research, present evidence to positively assess the study, and must match the research methodology (Hurt & McLaughlin, 2012). Yin (2009) identified how, what, and why questions as exploratory questions suitable for qualitative studies. Furthermore, grounded theory is used to generate a theory inductively from data where little is already known, as well as for analyzing and organizing data in a fashion that enables theory generation (Corbin &
Strauss, 2008). Therefore, because current research into the interactions among the components of the NIHE system as they relate to methods of sustainably generating revenue for NIHEs is very limited, a grounded theory approach with theoretical sampling was incorporated into this study.

**Higher Educational System and Organizational Change**

Fundamental to gaining new knowledge regarding the interaction among components of the nonprofit university system is an understanding of the components of the system, as well as how the system as a whole and the components thereof react to organizational change and adapt to change in general. As an example, Randall and Coakley (2007) examined how adaptive leadership affected change in academia through two case studies. Through this examination, Randall and Coakley determined that “leadership in today's academia should take into account the needs and demands of various stakeholders … [and] … for the institution to flourish in today's environment … requires innovation and input from all relevant stakeholders” (p. 326). Similarly, a case study by Oliver and Hyun (2011) examined how certain components of four-year institutions of higher education collaborate during the curriculum change process. Congruent with the findings of Randall and Coakley, Oliver and Hyun concluded that “the collaboration of various groups within the institution in the process promoted organizational change” (p. 2); however, Oliver and Hyun also concluded that widespread collaboration among groups in institutions of higher education is incongruent with the current organizational culture of higher education institutions. Additionally, Oliver and Hyun identified several important stakeholders of the higher educational system,
including society, government, alumni, accreditation bodies, faculty, department leaders, students, boards, and administrators.

From a more focused perspective, a case study by Nair, Bennett, and Mertova (2010) focused on one group of the stakeholders that Oliver and Hyun (2011) identified, namely students, and their interactions with academic staff. As a result, Nair, Bennett and Mertova concluded that in order to effect positive change, student feedback must be collected and acted upon with ample support for academic staff (p. 553). Congruently, while identifying the registrar and suppliers as additional key stakeholders, Sohail, Daud, and Rajadurai (2006) also suggested that cross-functional teams are an important aspect of an effective higher educational system. This conclusion also indicates the clear dependency and interconnectivity among certain stakeholders that both Randall and Coakley (2007) and Oliver and Hyun identified.

With a focus on the importance of collaboration among components of the higher educational system with a spotlight on educational policy and reform, Kezar (2011) attempted to “to understand the experience of community-led partnerships and the role of culture in partnerships between community agencies and postsecondary institutions” (p. 205). Kezar identified cultural differences between a specific component, namely community and postsecondary institutions, which needed to be understood and mitigated before effective communication, collaboration, and change could occur. Key characteristics of the postsecondary institution culture that affect system interconnectivity and change initiatives identified by Kezar include the following:
values and beliefs—including professionalization, autonomy, equity, equality, academic freedom, and specialization of knowledge;

value emphasis—driven by strong values;

employee motivation—that is as varied as the staff, including upward mobility, prestige, and staff rewards;

structure—that is a professional bureaucracy;

roles—that are distinctive and bounded;

leadership—that is hierarchical;

partnerships—that work in isolation and not historically based;

decision-making/governance—that is shared with power distributed but with clear channels for influence;

size—generally large;

professionalization—is a highly prized value and ethic;

mission—is multiple and sometimes unclear;

funding—from on-going sources that fund on-going operations (Kezar, 2011, p. 234).

The interconnectivity of particular stakeholders was also identified by McDevitt, Giapponi, and Solomon (2008), whose case study regarding the effectiveness of a balanced scorecard approach for a particular university concluded that “true linkages related to any strategic initiative represent multiple interactions” (p. 41). As an example, McDevitt, Giapponi, and Solomon suggested that an attempt to get alumni involved in one aspect of the organization such as classroom activities could, with a systemic
network approach, also provide an opportunity for scholarship or research initiatives.

Similarly, McCuddy, Pinar, and Gingerich (2008) identified the interconnectivity of two important stakeholders, students and potential employers, when they concluded that “even though tuition-paying students (and/or their parents) consider themselves to be customers of the educational establishment, they are responding—through their selection of academic programs, majors, and minors—to the employment marketplace” (p. 630). Additionally, further emphasizing the importance of employers, McCuddy, Pinar, and Gingerich stated that “the needs and desires of employers for educated people who have the skills and competencies that can help their organizations survive and succeed” (p. 630) is the most important driver of curriculum development. This bidirectional interdependency of student needing employer, employer needing student, university needing student, and employer needing university clearly highlights the importance of the interactions among components of the nonprofit university system, as well as the importance of communication among stakeholders in institutions of higher education as identified by the research of Smith and Wolverton (2010). Additionally, Rollwagen (2010), due to the growing importance of alliances between universities, identified other universities as components of the nonprofit higher educational system.

Reinforcing the importance of revenue generation and corporate employers, Washburn (2005) determined that “university presidents were chosen for their ability to raise money and their close ties to the corporate sector” (p. 204). Furthermore, Barrett (2010) stated that universities had been incorporating corporate mechanisms such as marketplace analysis and copyrights through a “network of actors that included both
other universities and corporations” (p. 26). Going one step further, Slaughter and Rhoades (2004) found in relation to revenue generation in institutions of higher education that there were “spheres of interactivity that had no boundaries” (p. 11). This interactivity has resulted in cost and revenue generation for higher education through entrepreneurial activity (Barrett, 2010; Slaughter & Rhoades, 2004). The interconnection of system components and the importance of the corporate sector were further supported by Barrett (2010), who stated, “Kirp [2003] stressed that priorities in higher education were not necessarily determined by the institution but by external constituencies such as students, donors, corporations, and politicians” (p. 27).

From a broader perspective of the interactions among components of the nonprofit university system Dew (2009) concluded that institutions of higher education “… must have a systematic approach to assessing their environment, developing strategic plans, taking actions, and assessing their results” (p. 8). Furthermore, accrediting organizations expect institutions of higher education to possess a “macro-level approach to assessment, planning, and improvement and to demonstrate how this cycle is actualized in both academic and non-academic parts of the organization” (p. 8). The bases of the conclusions from both Dew and McCuddy, Pinar, and Gingerich (2008) show both the importance of the interactions among certain stakeholders in institutions of higher education, as well as how these stakeholders can affect the organizational system as a whole.

The interactions and lack of a “… systematic approach to assessing their environment, developing strategic plans, taking actions, and assessing their results”
(Dew, 2009, p. 8), can have negative effects upon the entire system. As an example, Jones and Wellman (2010) argued that one paradigm of governmental agencies “… is rooted in economic theory about the non-profit “cost disease,” which holds that the costs of service sectors inevitably rise because they are driven by labor costs that go up each year and cannot be reduced without harming the service” (p. 9). However, this paradigm, driven by a stakeholder with linear and hierarchal control of the system, mitigates many economic options that are generated by other stakeholders, such as systemic innovation, and cost management.

Consequently, fundamental to gaining new knowledge regarding the interaction among components of the nonprofit university system, is an understanding of both the components of the system, as well as how the system as a whole reacts to organizational change. One important step in gaining new knowledge regarding the interaction among components of the nonprofit university system is to identify the components. This literature review has identified many components including the following: society, government, alumni, accreditation bodies, faculty, department leaders, students, boards, and administrators. registrar and suppliers, tuition-paying students (and/or their parents), academic programs, majors, minors, employers, interdependency of student needing employer, employer needing student, university needing student, employer needing university, entrepreneurial activity students, donors, corporations, politicians, and governmental agencies.
The importance of effective and adaptable revenue generation models highlighted by the research of Rollwagen (2010), who stated that higher education institutions must “… diversify their sources of income in order to live up to their mission as purposeful institutions in the emerging knowledge economy” (p. 11). Similarly, Jones and Wellman (2010) argued that the financial “… problems affecting higher education are not short-term but structural. … born of bad habits and an inattention to strategic financing and resource allocation” (p. 9). This inattention to strategic financing and resource allocation is a result of a revenue generation model that consists of increasing tuition, increasing governmental funding, and cutting certain costs. This model has been the main model of revenue generation for institutions of higher education for decades. As an example, more than a decade ago Kezar (2000) identified eight strategies for revenue generation and cost mitigation including (a) increased public funding; (b) use of funding priorities; (c) effective faculty salary strategies; (d) profit sharing; (e) multiply financial strategies such as reassessing tuition and financial aid and strategic alliances with other institutions; (f) new sources of revenue generation; (g) proliferation of for-profit higher education; and (h) increased marketing (p. 4). After analyzing the major qualitative and quantitative international changes in higher education, through a review of current and relevant research, as well as current industry statistics, Sanyal and Johnstone (2011) determined that current increases in revenue could come from a combination of the following five sources:

(a) governments, mainly through taxes or governmental borrowing; (b) parents,
though payments for tuition and student living costs; (c) students, through term-time and summer employment and borrowing; (d) philanthropists or donors, either individuals, foundations, or businesses, and through endowments as well as current giving; and (e) businesses, as purchasers of services or corporate philanthropists, or as collectors of earmarked taxes that are then passed on to consumers of their products. (p. 160)

Sanyal and Johnstone (2011) further determined that in response to the current financial crises facing the global economy, institutions of higher education in the United States have increased revenue by treating higher education as an exportable commodity in two ways (p. 170). “First, they recruit students who will pay full tuition fees and other fees; second, they offer programmes to foreign students in their home countries through a variety of delivery modes, charging very high fees” (Sanyal & Johnstone, 2011, p. 170). Furthermore, the focus on tuition by Sanyal and Johnstone is not limited to foreign students; the authors suggest that one solution to the problem of decreases in governmental funding is modest increases in tuition. However, tuition increases create many issues for the NIHE system including “evidence of a social-context effect on the college choice process. … [which contributes] to the persistent pattern of postsecondary attendance that prevails in the United States, a pattern that reflects continued stratification along socioeconomic lines” (Lillis, 2008, p. 27).

After stressing the requirement for institutions of higher education to identify new methods of generating revenue, Barrett (2010) stated:
The market environment in which higher education operates is competitive for both revenue and students. This situation presents immense challenges as well as opportunities for higher education leader who possess the skills and can marshal the needed resources to shift their institutions' focus away from the traditional methods of revenue generation and identify new and expanding opportunities which are unique, marketable, and profitable. (p. 28)

Further detailing the market environment, Barrett identified eight emerging threats that universities must mitigate including (a) shrinking enrollment; (b) rising costs; (c) demographic changes; (e) online competition; (f) a difficult fundraising environment; (g) accreditation pressures; (h) recruiting needs; and (i) decreasing state and federal funding (p. 28). As a result of the analysis by Barrett (2010), competitive intelligence (CI) seems to be one tool which will aid in the creation of revenue while mitigating some of the threats. For Barrett (2010),

The CI process within higher education notes that programs must be competitive and relevant, operations must be efficient, networks must have cross functionality and the institution must have in place systems that seek pertinent and relevant information from within and across their sectors. Innovation will be a cornerstone in these processes; resistance to change must be eliminated. (p. 30)

In a case study of four major Canadian universities, Eastman (2006) suggested that because the components of revenue generation are so closely connected to the balance of the overall university system, a university’s mission changes as the need for revenue generation increases. As an example, Eastman found that a strategy of raising
revenue through increasing class size and student population resulted in a bifurcation of teaching and research where teaching received most human resources and research was minimized (p. 56). Furthermore, Eastman (2006) found that:

Not-for-profit universities are notorious for their limitless ambitions, their tendency to add new activities onto existing ones (rather than to cease doing some things), and their consequent inability to control costs. Howard Bowen's revenue theory of costs in higher education (that costs are a function of revenue, because universities raise all they can and spend all they raise) pertains to not-for-profits. (p. 60)

In reaction to pressures on higher education revenue generation systems, Marginson (2011) identified exporting education, or the system component foreign students, as a growing source for revenue. Congruently, Walker (2010) stated that the international higher education that has been provided by the United Kingdom has resulted in “significant revenue from which is central to the prosperity of the country’s universities” (p. 168). However, Marginson, in another clear indication of the interconnection and dependencies among components of the higher educational system, also cautioned that an increase in supply of foreign students had an effect on other system components, such as community, with specific concerns about immigration policy. Congruently, Gu (2009) found that although the benefits to international education were identified, “transnational education tends to erode national educational sovereignty and threatens cultural security of importing countries, undermines the public nature of education, and challenges the existing institutional arrangements for quality assurance,
accreditation and qualification recognition in higher education” (p. 624). However, a revenue generation system which includes all components of the system and incorporates their respective inputs, can effectively react to cuts in governmental funding of higher education by enabling the benefits identified by Marginson (2011) to be realized while the risks identified by Marginson and Gu are mitigated.

Additionally, a paper comparing short and medium term strategies for generating revenue in the face of reductions in public funding by Hauptman and Nolan (2011), examined four potential strategies “capping enrolments, changing the enrolment mix, raising prices and increasing enrolments without raising prices” (p. 1). However, in a clear indication of the lack of understanding of the affects of the various components of the nonprofit institution of higher educational system, Hauptman and Nolan concluded the following:

There are fundamental inadequacies in our understanding of the possible impacts of changing enrolments on marginal costs. This means that higher education system and institutional leaders may not be fully and rationally exploring the range of options available to balance their budgets in the face of recession-driven cutbacks … (p. 1)

Similarly, Proper (2009), in a reaction to cuts in governmental funding, proposed a revenue generation model that was based on philanthropy. Proper based this model on the fact that “private colleges in the US, which comprise two-thirds of the sector, were largely formed by benefactions” (p. 150). However, although philanthropy or donors are important components of the higher educational system, currently only a small number of
colleges within the United States derive large portions of their revenues from philanthropy (Proper, 2009). Interestingly, private colleges depend on philanthropy significantly more than public colleges as private colleges in the past have derived near 30% of their revenues from philanthropy while during the same time period philanthropy in public colleges accounted for less than 2% of revenue (Proper, 2009). Additionally, with specific attention to the culture of the United States, Proper (2009) generalized that “the US believes in the primacy of private solutions to social ills and of private provisions of goods… [and that] … US donors think donating money and volunteering time are compatible” (p. 153).

Moreover, according to the annual 2010 Voluntary Support of Education survey by the Council for Aid to Education, various subcomponents appear within the higher educational system component of philanthropy. These subcomponents included (a) foundations, which provided 30% of the voluntary support of higher education in 2010; (b) alumni, which provided 25% of the voluntary support of higher education in 2010; (c) non-alumni individuals, which provided 18% of the voluntary support of higher education in 2010; (d) corporations, which provided 17% of the voluntary support of higher education in 2010; and (e) other organizations, which provided 10% of the voluntary support of higher education in 2010 (Council for Aid to Education, 2011, p. 5). However, the 2010 Private Colleges and Universities Financial Conditions Survey conducted by the Association of Governing Boards, found that 42% of private institutions experienced endowment losses of between 10 to 20 percent while about 90% of the same private institutions reported that the portions of their operating budgets funded by
endowments declined (Long, 2010, p. 2). Weisbrod and Asch (2010) also acknowledged that existence of large losses in endowments but cautioned, “the much-discussed 20 to 30 percent plunge in endowments at wealthy private research universities is an enormous cut in asset wealth. But wealth that has declined from its all-time peak is hardly a crisis” (p. 25). Somewhat congruent with findings of Kezar (2000), other current trends in revenue generation and cost reduction included an increase in tuition of about 5% and cost reduction strategies which include energy saving initiatives, hiring freees, salary reductions, and moratoriums on capital spending (Long, 2010, p. 2).

In another response to these trends, Pathak and Pathak (2010) identified several components of the higher educational system as well as components of a revenue generation model in their paper regarding reconfiguring the education value chain. In their paper Pathak and Pathak not only propose a new value chain for higher education with new drivers and internal linkages (see Figure 1), but also “… proposed that the academic process can be unbundled into discrete components which have well developed measures” (p. 166). These discrete components are congruent with the works of many other scholars including Dew (2009) and Oliver and Hyun (2011).
From the perspective of increasing government revenue to increase government funding of higher education, a paper by Pjesky (2009) suggested, “money flowing into state and local budgets from a new source such as a lottery will be used to fund new spending …” (p.23). However, the conclusion of Pjesky seems to fall within the structural issues of inattention to strategic financing and resource allocation identified by Jones and Wellman (2010). The conclusions of Jones and Wellman and the vast data identifying systemic reductions in governmental spending on education indicate that the approach of Pjesky, which was based on data from 1978 through 2000, is not effective in the current global and domestic economic environment. As an example, according to the
State Higher Education Finance FY11 report by the State Higher Education Executive Officers Association, the overall support by states for higher education has declined from $78,390,540,666 in fiscal year 2011 to $72,543,813,412 for fiscal year 2012 (p. 61).

However, one must remember that the nonprofit higher education system is complex with multiple tasks, as Greenwood (2007) found these tasks to include the following:

Teaching, scientific and technological research, social science research, humanistic research and creation, applied social science and extension, public education, dining, dormitory management, traffic control, etc. [which] do not fit together easily and there are many cross-effects and cross-subsidies that are hard to manage. (p.260)

Further compounding the complexity of the nonprofit higher educational system, is the fact that revenue per student for tuition and fees, is substantially higher than that of private for-profit and public institutions (see Figure 2), as well as the fact that expenses per student is substantially higher than that of private for-profit and public institutions (see Figure 3).
Figure 2. Revenue per student from tuition and fees for degree-granting postsecondary institutions, by institution control and level: Academic year 2008-09. From The Condition of Education 2011 (NCES 2011-033; p. 135), by S. Aud, W. Hussar, G. Kena, K. Bianco, L. Frohlich, J. Kemp, ... National Center for Education Statistics, 2011, Washington, DC: National Center for Education Statistics.
Although both tuition and expenses are rising in nonprofit higher education institutions, a mitigating factor may have been found in a research study by Shah (2009). Shah determined “that implementing quality programs leads to an increase in satisfaction among constituent groups, increase in revenue, and a reduction in costs [and that this] … increased satisfaction also leads to increase in revenue and reduction in costs” (p. 125). This interaction can be seen in Figure 4. Additionally, the research of Shah suggests that a revenue generation model should include both quality programs as well as program for the satisfaction of stakeholders.
Organizational change, as suggested by Shah (2009), for higher educational institutions is difficult. As an example, Weisbrod and Asch (2010) showed how institutions of higher education have maintained decades-old linear and static revenue generation models which have left them vulnerable to the current “perfect storm of falling investments, credit tightening, declining private contributions from individuals and corporations, declining state funding, and increased student financial need leading to decreased tuition revenue” (p. 24). For Weisbrod and Asch this linear and static revenue generation model is comprised of three major parts, tuition, donations, and governmental funding. All of which are being negatively affected by the current global economy.
The interactions among components of the traditional revenue generating model have also been depicted in equation form. As an example, Summers (2004), in an empirical analysis of historic quantitative data, identified several mathematical equations, including the two shown in Figure 5. The addition of quantifying interactions among components is significant, because by quantifying or weighting the value of inflows and outflows of system components, one can better determine the affects of change throughout the entire complex system of nonprofit higher education.
\[
AID_{it} = f(P_{it}, FTE_{it}, ARATE_{it-1}, DIV_{it-1}, FR_{it-1}, INV_{it}) \quad (1)
\]
\[
FTE_{it} = g(P_{it}, AID_{it}, P1_{it}, PINC_t, INST_i, t-1) \quad (2)
\]

In equations (1) and (2) \( i \) indexes schools and \( t \) indexes time. The variables in the model are defined as follows. AID is total institutional aid applied to tuition and fees that is funded from both a college’s endowed and non-endowed sources. FTE is full-time equivalent enrollment. P is the college’s undergraduate tuition and required fee rate. ARATE is the acceptance rate, calculated as the percentage of applicants who are admitted at a school. It serves as a proxy for selectivity. The higher is ARATE, the lower is the implied level of selectivity. DIV proxies for diversity of the student body and is measured as the percentage of full-time equivalent student enrollment that is of black, Asian, Hispanic, and other non-white ethnic origin. FR proxies for student ability and is the percentage of the freshman class that was in the top 10% of their high school class. INV is the school’s total return on invested assets. P1 serves as a substitute price. For school \( i \) in year \( t \), P1 is calculated as the average tuition and fee rate at the other \( n - 1 \) schools in the sample during that year. PINC is the US personal income and INST is the school’s total instruction expenditures.

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Figure 5. Mathematical equations showing relationships among certain components of the higher educational revenue model at private liberal arts colleges. From “Net Tuition Revenue Generation at Private Liberal Arts Colleges” by J. A. Summers, 2004, Education Economics, 12(3), p. 222. Reprinted with permission.

From a perspective of special purpose nonprofit organizations (SPOs), Tucker, Cullen, Sinclair, and Wakeland (2005) examined systems thinking concepts in an effort to mitigate the financial challenges facing SPOs. As a result of their examination, as well as a case study, Tucker et al. (2005) created a dynamic model (see Figure 6) which leaders of SPOs can use to measure the impact of alternative strategies on financial health (p. 482).

Figure 7 shows, each stock, inflow, converter, and outflow have either an initial value or equation, which allows the financial model (Figure 6) to run mathematical simulations of the relationships among system components, as well as mathematical simulations of potential new financial programs.

Based on the framework of Figure 6 and Figure 7, a new theory will show qualitative interactions similar to those identified in the stock and flow map in Figure 8 below.
Figure 8. Preliminary dynamic financial stock and flow map of SRGS. From Complex Adaptive Change Plan: Revenue Generation for a New Nonprofit University, by G. Arcuri, 2010, a paper presentation at the Kenwood University of New York Campus Association’s board meeting.
The stock and flow map in Figure 8 has four main elements, namely stocks, flows, converters, and connectors. Adapted for Figure 8 from the definitions and descriptions of Forbes (1993), the four main elements are defined as follows:

- **Stocks**: Stocks represent an accumulation, either concrete or abstract, that increases or decreases over time. Figure 8 has six concrete stocks including, Annual Number of Students, which are displayed with a rectangle.

- **Flows**: Flows represent actions or processes; either concrete or abstract, that directly adds (inflow) to or takes away (outflow) from the accumulation in a stock. Figure 8 has 12 concrete flows including, the inflow of Adding Students to the stock of Annual Number of Students. Flows are displayed with a double line with an arrow at one end and a circle and cross mark in the center, with the intention of looking similar to a water valve.

- **Converters**: Represented by a circle, converters hold information or relationships that affect the rate of the flows. Converters also can affect the content of another converter. Figure 8 has many converters including, the converter of Poor Economy, which affects the content of converter Attrition Fraction, which in turn, affects the flow of Losing Donors.

- **Connectors**: Represented by curved lines with an arrow, connectors indicate that changes in one element causes changes in another element. Figure 8 has many connectors including, the connector between converters Poor Economy and Donation per Donor, which indicate that changes in converter Poor Economy causes changes in converter Donation per Donor.
The complex interactions among components in the stock and flow map of Figure 8 highlight specific interactions, such as the interactions between a reduction in tuition and an increase in the number of students. The interactions between governmental budget and incoming grants are also highlighted. Additionally, Figure 8 identifies the interactions among graduate partnerships (a potential partnership between graduates, NIHE, and employers) and jobs for graduates, students who become donors, and adding students. Figure 8 also responds to the work of Weisbrod and Asch (2010) who showed how institutions of higher education have maintained decades-old linear and static revenue generation models by having a character that is dynamic and focused on connectivity, co-evolution, reinforcing cycles, and self-organization as suggested by Luoma (2006).

A new revenue generation model for nonprofit institutions of higher education must also mitigate the financial vulnerability in nonprofit organizations as described by Trussel (2002). Trussel went on to identify “four financial indicators of financial vulnerability—the debt ratio, the revenue concentration index, the surplus margin, and the size of the organization—and control for the sector to which the organization belongs” (p. 11).

For a new revenue generation theory for nonprofit institutions of higher education to be sustainable, the system not only requires effectiveness and efficiency in the present time, but also continual adaptability in the future (Beinhocker, 2006). Beinhocker determined that in order for organizations to improve their longevities as high performers they must find a way to adapt to the environment as change occurs in the future. Through
A systems thinking approach, adaptability to a complex and chaotic future is enabled. This future is driven by the natural, universal, and constant force of change.

A few characteristics of a complex adaptive system (CAS) include systems that coevolve with their surrounding environments, a networking mechanism and the notion of an unpredictable future (Dooley, 1997). A number of characteristics linked to complex systems and the main characteristic is the inclusion of a large number of parts with many interactions (Anderson, 1999). According to Meadows (2008) complex systems are also self-organizing, nonlinear, feedback systems where their behaviors are unpredictable. Complex systems are also characterized as those that are time sensitive. Some cases where the same action has drastically different effects in the short run and long run (Senge, 2006).

An important contribution to the phenomenon of complex systems approach was the development of network theory (Viale & Pozzali, 2010, p. 581). As interactions are built within social systems each individual has a role that is either active or has the potential to be activated (Viale & Pozzali, 2010). As changes occur among individuals, their social network is consequently changed as well. This change leads to a change in the individual’s surrounding environment and the individual’s future goal. (Viale & Pozzali, 2010). The fitness model is a model of network building, the evolution of network. The links are formed based on the fitness of the nodes, the connecting pieces. Thompson (2004) discussed the use of the fitness model in his study of the complexity of networks within the Department of Justice. The use of the fitness model by Thompson was to
describe the networking capability of Microsoft in developing computer operating systems.

Complex adaptive systems provide a tool to obtain all the knowledge and intelligence in an organization, as well as creating new shared understanding of more innovative solutions to problems (Waldrop, 1994). New revenue generating systems for nonprofit institutions of higher education must focus on connectivity, co-evolution, reinforcing cycles, and self-organization (Luoma, 2006). Furthermore, understanding and managing chaos and complexity, is very important as for Gonnering (2010) complex adaptive systems can operate "on the edge of chaos," creating nimbleness, adaptability, resilience, and resistance to perturbation by outside forces (p. 2). Additionally, Chapman (2009) defined complex adaptive systems as “dynamic, self-organizing, self-maintaining through internal feedback paths, made up of many autonomous parts, and they depend on connectivity to operate” (p. 26). Both authors’ work emphasizes the critical nature of communication, feedback, and system connectivity. Furthermore, creativity and resilience, and for some value, are enhanced in organizations that operate effectively between chaos and complexity. As identified above, effective operation between chaos and complexity is dependent upon the system thinking archetype, communication, and looped feedback, to name a few. As further supported by Shoham and Hasgall’s (2005) paper, this proactive nature of a complex adaptive system is based on a constant flow of the “total capabilities and knowledge among all the fractals [parts]. This integration of knowledge means that each fractal must be kept constantly abreast of all significant events” (p. 230). Therefore, in order to effectively adapt to a complex, chaotic, and
changing environment, nonprofit institutions of higher education will have to adhere to
the system thinking archetype, possess effective and adaptable communication methods,
and enable double and multi looped feedback.

The core of the system web for an organization is the system thinking paradigm,
whereby systems thinking is nonlinear thinking such that “a variety of feedback loops …
influence organizational decisions, [and] that all organization members should share in
the responsibility for organizational success” (Wielkiewicz, 2005, p. 1).
Transformational leaders recognize and understand the power inherent in developing
strong emotional bonds with their employees, and the significant role communication
plays in creating those bonds (Carr, Hard, & Trahant, 2009, p. 46). Communication and
feedback, elements of the nonprofit institution of higher education system web, are
extremely important to such a complex human system.

The communication of data and looped feedback is continually transmitted over
the threads of the system web. However, the best communication and looped feedback
can be affected by archetypes. As an example, Gillies (2008) research showed that,
archetypes helped the hospital managers recognize patterns of behavior that were present
in their organizations. The archetypes served as the means for gaining insight into the
underlying systems structures from which the archetypal behavior emerges. Gillies found
that the “application of system archetypes to the strategic analysis … reveals that it is
possible to identify loopholes in management's strategic thinking processes [moreover]
executives found that policy modification helped to avoid such pitfalls and avoid
potentially cost prohibitive learning” (p. 82). Particularly parallel to the mission of an
institution of higher education, learning also requires unlearning as Gharajedaghi (2007) stated, “to change, systems need to go through an active process of unlearning. Unlearning is an iterative and collective process of the second-order learning” (p. 1).

Additionally, communication is the transmission of knowledge, which if received, comprehended, operationalized, synthesized, and transmitted effectively, enables adaptability. Knowledge, in this context, is generated by each employee and is an evolving mix of experience, values, contextual information, and insights (Shoham & Hasgall, 2005).

In an attempt to measure and assess institutions of higher education, Tseng (2010) identified four basic aspects the system through the use of a hybrid of the balanced scorecard (BSC), called the Fuzzy Network Balanced Scorecard (FNBSC), namely (financial, student, internal operations, and learning and growth). Tseng also identified industry specific criteria for evaluating the system including, annual growth in revenue, annual growth in net revenue, market share, percentage of new students to total revenue, student satisfaction via surveys, student complaint rates, cost of service as compared to competition, employee retention, and employee satisfaction (p. 192).

**Change Management**

The interactions among the components of the NIHE system, as they relate to methods of sustainably generating revenue of NIHEs, include the interactions between these components regarding change management. Furthermore, an important aspect of sustainability, in the sustainable revenue generation theory identified in this study, is change management. The complexities of managing change in institutions of higher
education, as shown earlier by numerous researchers including Oliver and Hyun (2011) and Dew (2009), are as vast as the human perspectives that drive them. As an example, Bold (2011) stated “that change management is an attitude, rather than a set of tools and techniques and that the successful businesses in many areas of activity are strongly influenced by the ability to exploit moments of transformation, moments of change” (p. 12). Furthermore, understanding and managing change includes the exploration of both current and potential models, as they relate to a particular culture, as well as the planet as a whole. This variety in cultures, as well as the variety in human perspectives, gave rise to numerous approaches to managing organizational change. These approaches include the following; management by objectives, ad-hoc portfolio analysis, business process reengineering, strategic intent, and the balanced scorecard (Bold, 2011). This section of the literature review assesses a few aspects of change management in conjunction with nonprofit institutions of higher education and the human perspectives that drive them by reviewing certain mechanisms that drive and respond to change, as well as the interactions between these mechanisms and organizational effectiveness. Additionally, this review included leadership pitfalls, internal and external influences, and cross cultural considerations. In the end, knowledge of these components of change management will enable an effective theory regarding revenue generation. Finally, although Barends, Janssen, ten Have, and ten Have (2013), in relation to the quality of the body of evidence on the effectiveness of organizational change interventions, found “that this body of evidence is sparse and low in quality” (p. 50), I found a reasonable and somewhat dated body of research to incorporate into this literature review.
While change is complex, and resistance to change can be an issue, resistance to change can also be positive (Fullan, 2007). Fullan initially described the relationship between resistance to change and enhancers of change, six years earlier, when he wrote, “we are more likely to learn something from people who disagree with us than we are from people who agree” (Fullan, 2001, p. 41). The author went on to write,

Change is a double-edged sword. Its relentless pace is difficult to adjust to, yet when things are unsettled, we can find new ways to move ahead and create breakthroughs that are not possible in stagnant societies. When asked how they feel about change, people often described anxiety, fear, danger, loss, and panic, as well as excitement, energy, exhilaration, risk taking, and improvement. For better or for worse, change arouses emotions, and when emotions intensify, leadership is key for addressing leadership needs. (Fullan, 2014, p. 1)


We demand that [leaders] solve, or at least manage, a multitude of interconnected problems that can develop into crises without warning; we require them to navigate an increasingly turbulent reality that is, in key aspects, literally incomprehensible to the human mind; we buffet them on every side with bolder, more powerful special interests that challenge every innovative policy idea; we submerge them in often unhelpful and distracting information; And we force them to decide and act at an ever faster pace. (p. 15)
As evidenced earlier in this chapter, the preceding statement is congruent with the demands of leaders, revenue generation, and the NIHE system in general, including the research by Rollwagen (2010), Jones and Wellman (2010), Oliver and Hyun (2011), and Barrett (2010). In further support of the importance of the connectivity of components and the relationships among components, Fullan (2001) found “that the single factor common to every successful change initiative is that relationships improve. If relationships improve, things get better. If they remain the same or get worse, ground is lost” (p. 5). Similarly, Dixon (2000) stated, “If people begin sharing ideas about issues they see as really important, then sharing [through effective relationships] itself creates a learning culture” (p. 5). Dixon (2000) went on to postulate that effective change management requires a learning culture and that this learning culture would be driven by the exchange of knowledge that is driven by an organization with a collaborative culture. Fullan (2001) summed up the importance of relationships by stating, “successful strategies always involve relationships, relationships, relationships” (p. 70). Fullan (2001) summed up the importance of constant interconnectivity and communication by stating, “all through this book the message has been that organizations transform when they can establish mechanisms for learning in the dailiness of organizational life” (p. 130). For Fullan (2014), in order to turn information into knowledge, organizations must have good relationship management because turning information into knowledge is a social process. Another important aspect of the finding of Fullan (2001) is the significance of constant change, because the author determined that the status quo has negative consequences to the system.
Change and relationship management are wide-ranging subjects. In conjunction with this statement, Pacale, Milleman, and Gioja (2000) found,

How a system connects with its external world is also a key source of that system’s health. Connectivity is not just about good relations with those outside the company. It impacts the quality of strategy and design and has direct bearing on a company’s success. Biotechnology presents just one example of issues that are too complex to address without a design for broadening the participation of people with diverse concerns and stakes in the questions. Seeking out the views of scientists and government regulators, people affected in different ways by the product help everyone imagine and design for unintended consequences. To talk only to oneself as a company will lead to strategic vulnerability. (p. 91)

The strategic vulnerability, which is caused by poor connectivity among components of the system, which Pascale et al. (2000) has identified, is evident in the NIHE system today. Furthermore, the authors highlighted the importance of people with diverse concerns and stakes, which further supports the need for a system that has bidirectional connectivity among all of the components of the system, both internal and external. De Gues (1997) who determined that organizations fail to remember that their true nature is that of a community of humans also incorporated the importance of the connectivity of external components to the change process into the research. De Gues further found,

A healthy living company will have members, both humans and other institutions, who subscribe to a set of common values and who believe that the goals of the
company [or organization] allow them and help them to achieve their own individual goals. (p. 200)

Theories regarding change management are varied and evolved. As an example, in their article involving health organizations and change management, Varkey and Antonio (2010) identified three commonly used change models (see Table 1).

Varkey and Antonio (2010) went on to identify the framework for change management, depicted in Figure 9 below, which included key steps for successful change management practices that would “increase the odds of success because focus is place on the people in the organization who make things happen” (p. 268).
Similar to the health based organizational framework for change management that Varkey and Antonio (2010) identified in their research, Razzaq and Forde (2013) identified a model for educational change management designed to enhance educational change initiatives in Pakistani schools (see Figure 10). Razzaq and Forde further postulated that their educational change model “shares common features with the large-scale reform programmes on the global educational scenario” (p. 63).
Importantly, Figure 10 highlights the importance of the terms inclusion, comprehensive and consistent, to the model of educational change, which are terms that are strongly related to the connectivity among all of the system components. In another article that
focused on change in educational organizations, Orians and Bergerson (2014) support the findings of Kezar (2011) in their statement,

Kezar (2011) noted that both higher education and K-12 environments have struggled with scaling up change efforts, due to complex implementation contexts, cultural norms, the lack of incentives for changing, and the issue of who owns the change. Rather than embracing the scaling-up approach to change, Kezar argues that a combination of mutual adaptation and social movement is a more appropriate model for change in educational environments. … Kezar’s suggestions for improving change in education [include]:

• Deliberation and discussion that touch on individual norms allow people to understand the change and increase their motivation to change
• Networks provide opportunities to connect to others with similar ideas, promote access to information, and allow for the adaption of change strategies
• External supports and incentives that recognize and reward change agents help keep the change moving forward even in times of difficulty and provide extra incentives for staying with the change process. (Orians and Bergerson, 2014, p. 64)

Theories regarding change management have varied, not only by researcher and industry, but also over time. As an example, Lewin (1951) focused on behavior through unlearning, re-learning, and applying new behaviors, alternatively for Hiatt (2006) effective change was achieved through connectivity, throughout the entire culture and
workforce, of an organization. Lewin and Regine (2000) suggested that an organization must “pay as much attention to how we treat people [co-workers, subordinates, customers] as we now typically pay attention to structures, strategies, and statistics” (p. 27). Additionally, before change can occur within an organization, organizations must identify the factors that create growth and provide direction (Phaal, Farrukh, & Probert, 2007). “Numerous internal and external components influence the successful identification of relevant business drivers (Fireside, 2014, p. 19). The establishment of links among the components of the organization that comprise business drivers and assets of the organization resulted in the predictability of outcomes created by change (Phaal, Farrukh, & Probert, 2007). Twomey (2005), who stated that organizations must respond to “the most important relationships that contribute to competitiveness” (p. 39), further supported the importance of understanding the links among components of the system. One of these important relationships was between existing human capital and the affect upon the stakeholders most affected by change (Cameron & Green, 2009). For Kotter (1996) effective change management included consciousness and transparency on all levels of the system. Similarly, Fireside (2014) found that “modern management research has revealed the need for change to be understood from multiple perspectives, because of the diversity present throughout organizations” (p. 21). Likewise, Meyerson (2001) studied the relationship between change strategies and employee diversity, including gender, race, values, and sexual orientation. Meyerson suggested that the incorporation of diverse perspectives supports effective change management. Recent research on change
management has focused on successful change management as it relates to the objectives and agents of change (Hiatt, 2006).

Traditional and linear change models cannot effectively respond to the current complexities of constant environmental and social change. Supporting this statement are the findings of Arena (2002) who determined, "the expansion of global markets and radically changing distribution systems are making business virtually impossible to understand, as well as researchers Griffin and Moorhead (2011) who argued “that change is not a linear process. The turbulence that has resulted from all this has forced organizations to become more fluid and agile than ever before" (p. 33). Arena also created a formula for change; "Success = (Acceleration x Engagement) - Resistance" (p. 41). As with other research, this formula highlights the importance of engagement of stakeholders. From an organizational change perspective, Qian and Daniels (2008) offered a worker-centered, quantitative study of 186 full time tenure-track faculty members through campus emails, at a large Midwestern university in the USA with a purpose to "generate and test a model of employee cynicism toward organizational change from the communication perspective in a higher education institution" (p. 319). The results of the study by Qian and Daniels suggested that perceived quality of information, cynicism of colleagues, and trust in the administration, predict change-specific cynicism, which caused a culture that was resistance to change (p. 320).

Lamm, Gordon, and Purser (2010) conducted a quantitative study to investigate the relationship between perceived value congruence and behavioral support for organizational change. In the study, which included 211 working MBA students and 95
employees in a non-profit agency, the authors “assess whether employees’ perceptions of congruence between their values and those of their organization, department, and work group are significantly associated with behavioral support for a recently implemented organizational change” (Lamm, et al., 2010, p. 49). The findings from the survey suggested that value congruence is associated with behavioral support for organizational change. For this study, value congruence was defined as, “the similarity between a person’s values and those of the organization, similar to the notion of person-culture fit” (Lamm et al., 2010, p. 49). Similarly, with a focus on collaboration and human resources, Johnson and Senges’ (2010) determined that collaborative practices and peer-learning employed by Google increased collegiality, morale and job satisfaction.

For Cameron and Green (2009), the changes in individual employees resulted in organizational change. In an effort to create a generalizable and repeatable process for the evaluation of change management in organizations, Bouckenooghe, Devos, and Broeck (2009) developed a 42-item assessment tool that measures both the change process and the internal needs for change, which may aid in identifying process-of-change dimensions. Hiatt (2006) also suggested that change management is a set of tools, skills, and processes for managing humans. Noll (2001) found that external environmental factors including globalization affect change management initiatives. Congruent with the need for an understanding of multiple perspectives, Cohen (2000) found that education and training affected change management initiatives.

Additionally, understanding change management requires an understanding of the external demands on the humans connected to the system (Patton, 2008). Both Cohen
(2000) and Drucker (2009) found employee ownership of organizational outcomes to have a positive effect upon the change process, as well as provide opportunities for personal growth for the employee. Further supporting the importance of connectivity between components of the system during change, the inclusion of input from system components such as employees is a “valuable way to ensure that all employees' goals are linked with corporate strategy” (Cohen, 2000, p. 147). Connectivity among human resources, intellectual capital, and the organization is particularly important to nonprofit organizations (Kong & Ramia, 2010). Similarly, Clarke and Meldrum (1999) concluded that successful change is unrealistic unless the organization includes the interactions of all stakeholders within an organization. Tierney (1999) also determined that when the interdependency of humans was understood and part of the change process that change was more successful. The participative approaches to change management identified by Tierney (1999), Clarke and Meldrum (1999), Cohen (2000), and others is also congruent with the findings of Macon and Artley (2009) who identified the importance of understanding the perspectives of the four different generations currently contained within the general workforce. Acknowledgment of the interconnectivity among components of the system, or organization, will result in stronger relationships among components of the organization, as well as more effective change management (Stroh & Jaatinen, 2001). Shum, Bove, and Auh (2008) included cross-functional integration and communication as important support factors for effective change management. For Kong and Ramia (2010) connectivity, or integration, of all organizational levels as well as internal and external forces enhanced change management and provided opportunities.
Senge, Linchtenstein, Kaeufer, Bradbury, and Carroll (2007) hypothesize that “the sustainability challenge is fundamentally a learning challenge, a process that requires ‘outer changes’ like new metrics and ‘inner changes’ like in ways of operating” (47). Furthermore, Senge et al. (2007) found that organizations will increasingly be unable to effectively confront complex sustainability issues which can be mitigated by “a new mandate for learning across organizations, industries, and sectors” (51). Similarly, Dienhart and Ludescher (2010) posited that cross-sectoral collaborative partnerships among government, business, and nonprofit organizations are required to address the challenges of sustainability because each had a different perspective and capacity to resolve the related economic and social issues. Through an inductive analysis of a variety of case studies of cross-sectoral governance, Dienhart and Ludescher (2010) posited that a new paradigm was emerging which effectively addresses sustainability challenges through cross-institutional governance (p. 411). Research suggests that all initiated change efforts have a failure rate of 70% (Balogun, Hailey, & Johnson, 2008). According to Legris and Collerette (2006) the poor rate of success for information technology projects is a result, in part, of failing to involve, and communicate with, stakeholders thoroughly in the change process.

Continuous communication among components of the organization is essential to raise awareness and to achieve stakeholder buy-in (Cohen, 2005). From a perspective of communication and in an effort to facilitate major change, Barrett (2002) found that “middle and lower level management needed to shift from extreme command and control and silo thinking to a team-based, participative, cross-functional, openly challenging
culture” (p. 228). Some of the research that was examined for this literature review focused on communication in relationship to change but the word continuous was also noted in much of the research. Continuous implies repetition and constant monitoring (Dienhart & Ludescher (2010). Change is a complex process, which requires connectivity among components. As an example,

To enable employees to take action, it is important to redesign or update HR — related processes (e.g., performance metrics and appraisals, organizational structure, rewards, succession planning) as well as redefine roles and responsibilities in a way that reinforces new behaviors. (Cohen, 2005, p. 88)

Key stakeholders, or system components, must be identified before any change initiative can be effectively implemented. Smith and Mourier (1999) confirmed the importance of the identification and involvement stakeholders in the change process and the importance of the inclusion and understanding of, what Smith and Mourier (1999) call, infrastructure. Smith and Mourier (1999) define the term ‘infrastructure’ as “the players [components] and a definition of their roles” (p. 38).

Change is constant and natural to the universe. Change requires adaptation in many forms including role adaptation. As an example, Lowder (2009) suggested that adaptive system components can only operate within an environment or culture that permits the challenging of existing roles and responsibilities, and this ability to challenge roles will enable a proactive change process rather than a reactive change process. Lowder further argued that a lack of an understanding of humans, as well as how to change employee behavior will obstruct the direction of change initiatives.
Research for a new and sustainable revenue generation theory was supported, from a broad perspective, by current research, which has shown that fundamental changes from traditional processes can produce effective outcomes Kong and Ramia (2010). The lack of understanding about change management practices in nonprofit organizations resulted in slow responses to change (Andrews, Cameron, & Harris, 2008). Adding further to poor change management practices in nonprofit organizations is both declining resources and technology innovations (Trautmann, Maher, & Motley, 2007). In support of the findings of this literature review, which state that the current amount of research regarding revenue generation and change, in the context of higher education, is both limited and not current, Diefenbach (2007) concluded that change management research has not focused on specific industry subgroup processes.

Poor change management has many implications, throughout a nonprofit higher education organization, including both internal and external environmental affects. One internal affect of poor change management was identified by Bordia et al. (2011) who found that a history of poor change management, and the subsequent perceptions of change, which “led to lower trust, job satisfaction and openness to change, and higher cynicism and turnover intentions” (p. 1). This reaction to poor change management history, systemically increases the dysfunctionality of the organization in relation to change, as well as most components of the organization. In addition, as human resources relocate from organization to organization, the results of a poor change management history may spread to other organizations, which highlight the importance of human perception to change.
From a general perspective, Stame (2010) identified three typical types of failure, including program theory failure, implementation failure, and methodology failure. However, for Stame the evaluation and validity of the various types of failure was rather complex and included two approaches to evaluating failure, goal-oriented and goal-free. As an example, Stame wrote “…not all methodological failures are a simple matter of selection bias” (p. 371). Similarly, Nye, Brummel, and Drasgow (2010) found that “when evaluating organizational outcomes, strong experimental designs are often not practical. As a result, assessments of change may be confounded by a number of threats to their validity” (p. 1555). Furthermore, Nye et al. (2010) confirm that history and indirectly human perception, not only affects change initiatives as Bordia et al. (2011) determined, but the evaluation of change initiatives as well.

From yet another perspective of change, Grant and Marshak (2011) stated that organizational change is a complex process that includes multiple communicative and language based processes. These processes, which affect human perception, include the constructive, multilevel, conversational, political, reflexive, and recursive nature of organizational change discourses whereby “the recursive, iterative, and ongoing nature of discourse that leads to alterations over time is shown to be significant to understanding the nature of organizational change itself” (Grant and Marshak, 2011, p. 25). The importance of discourse further highlights the potential negative effect of muting discourse through denial as suggested by Nye et al. (2010).

Alternatively, success can be achieved through various management strategies that directly affect human perception. As an example, Moss and Barbuto (2010) stated
“practicing managers who want to develop their leadership effectiveness should focus on
developing interpersonal influence and networking ability … [which] lead most directly
to positive effectiveness ratings (p. 169). From a global change leadership prospective,
Cohen (2010) found that a true global mindset enables leadership effectiveness in a
global leaders, whereas global leadership mindset is a balancing of three dichotomies;
global formalization versus local flexibility, global standardization versus local
customization, and global dictate versus local delegation. As an example, Derven and
Frappolli (2011) performed a case study within the Bristol-Myers Squibb organization,
who through executive sponsorship and multifaceted education, with ongoing guidance
and direction, created an adaptive organization with more effective global general
managers, as well as a quality pool of future global general managers.

While the list of potential leadership pitfalls during organizational change is vast,
for Lewis (2009), psychological shortcuts are significant issues that cause failures in
leadership. Common psychological shortcuts examined by Lewis (2009) included
generalizing from what is currently known, false accounts of cause and effect, and
ignoring the need for positive motivation. An example of generalizing from what is
currently known is a process during which a manager assumes that employees will react
to events in the same fashion that manager does. False accounts of cause and effect are
car caused by poor logic, while ignoring the need for positive motivation is a result of a
manager not paying attention to the emotional life of their organization. In order to
mitigate these psychological shortcuts, Lewis suggested that leaders need to (a) recognize
that they cannot know the future, (b) invest in preparedness rather than prediction, and (c)
learn to adapt to the unknown. Each of these mitigating techniques endeavors to modify the perception of the leaders.

Hopwood and Donnellan (2010) identified personality traits as an important internal influence affecting change management. Furthermore, Hopwood and Donnellan (2010) suggested that “personality trait inventories often perform poorly when their structure is evaluated with confirmatory factor analysis” (p. 332), suggesting that organization must work to align organizational culture with the personalities of employees, as well as stakeholders in general. As stated earlier, an additional internal influence on change management was identified by Bordia et al. (2011) who found that a history of poor change management, and the subsequent perceptions of change, “… led to lower trust, job satisfaction and openness to change, and higher cynicism and turnover intentions” (p. 1). Bordia et al. (2011) summarized their findings in a theoretical model, which is depicted in Figure 11 below.
Moreover, Becker (2010) found that prior knowledge and established mental models hinder change efforts, while unlearning was found to mitigate some resistance to organizational change.

In an article by Charbonnier-Voirin, El Akremi, and Vandenberghhe (2010), the authors “hypothesized that (a) individual perceptions of transformational leadership and (b) team-level transformational leadership climate would be positively related to individual adaptive performance” (p. 699). Furthermore, in an article by Wang and Rode (2010), the authors “examined the relationship between transformational leadership and employee creativity in a model that took into account the effects of employee relational...
self-concept as well as the larger organizational context” (p. 1121). The results of the study by Wang and Rode (2010) identified a relationship between creativity and the three-way interaction of identification with leader, transformational leadership and innovative climate. The authors survey was administer to 55 organizations representing seven different industries with varying organizational sizes. Based on the survey, with 296 participants, the authors determined that “when employee identification with leader is high, innovative climate increases the impact of transformational leadership behavior on employee creativity, thereby serving as an enhancer” (Wang & Rode, 2010, p. 1122). This further indicates that a substantial relationship between perception and change management may exist.

From the perspective of external influences, the global economy is a large influence on organizational change effectiveness. Initiated by an acceleration in globalization and a perceived chaotic state of change within levels of global business management, Robinson and Harvey (2008) examined what new skills should be adopted by business leaders to empower them to deal with the multicultural challenges caused by globalization. Through an extensive literature review and analysis, Robinson and Harvey (2008) created a model which identified the new skills and knowledge business leaders need to adapt to globalization, as well as created a basis for an effective organizational culture by integrating “psycho-social elements of leadership and organizational effectiveness, such as conditioning, power, duty, dependence, and ethics” (p. 466).

Gibson and McDaniel (2010) found cultural limitations to any universal applicability of organizational behavior. In an interesting study relating to perceptions
Driven by culture and cross-cultural considerations, Rodriguez (2005) examined the relationship between national culture, management team culture, and a manager’s personality traits, in the context of US-Mexican strategic alliances. As a result of the analysis, Rodriguez (2005) identified “that American and Mexican managers’ construct their own social reality with rules and norms bounded primarily by the existing organizational culture in the alliance [rather than that of their country]” (p. 84). Additionally, contrary to earlier research, Rodriguez identified a convergence in management styles whereby Mexican managers were moving toward a consultative nature with US managers. Similarly, Grossman (2010), in a non-empirical study, found that in the US context, different types of business networking patterns are evolving whereby the multicultural business network “is less reliant on the traditional pillars of family, language and culture and more on intellectual capital” (p. 287). In other words, national culture, management team culture, and a manager’s personality traits may be increasingly less dependent upon on lineage, language and culture. Finally, Rodriguez found “… evidence that organizational culture functions as the “third culture”, [whereby] the result of negotiations of cultural experiences, attitudes, and values, creates an organizational context that fosters compatibility” (p. 85).

Somewhat congruent to the results of the survey of Rodriguez (2005), but based in the emerging economy of Ghana, Zoogah and Abbey (2010) found that employers preferred employees with cross cultural experience. Zoogah and Abbey identified the main reason for this preference was that the perception of the employers was that cross culturally experienced individuals would be more effective at meeting strategic goals. In
other words, with the experience of working with various cultures modified the individual’s perception of change in a cross-cultural setting. Pellegrini, Scandura, and Jayaraman (2010) identified still one more aspect of cross-cultural leadership by stating “… paternalistic leadership [a culture based perception] is valued in developing nations” (p. 409). Furthermore, Bücker and Poutsma (2010) investigated certain behavior components, including “the knowledge, skills, abilities, and other personality characteristics (the KSAOs), useful for a construct of global management competencies” (p. 829), which are the same KSAOs that are necessary for change of the current nonprofit higher education revenue generating paradigm.

Current Literature Gap

No studies emerged from the literature review that considered the interactions among all of the components of the NIHE system, as they relate to methods of sustainably generating revenue for NIHEs. Nor had a grounded theory study been conducted to inform a sustainable revenue generation model. Furthermore, the research into the interactions among some of the components of the NIHE system, as they relate to methods of sustainably generating revenue for NIHEs, is very limited and spread over a period of more than 5 years. Moreover, this literature review identifies numerous calls for new and sustainable methods of revenue generations. In keeping with Glaser (2010a, 2010b) and the limited amount of current literature, the literature review includes literature that was published more than 5 years ago. I deemed the literature review data, and used constant comparative analysis to build properties in the categories. However, various current research was incorporated into this study including that of Bold (2011),

This grounded theory study begins to fill the gaps identified above in a substantial and essential manner, both through the findings and the act of performing the study itself. More specifically, in response to the findings of this study relevant to each of the three research questions, the gaps have been filled by this study because this study included:

- the study of the interactions among all of the components of the NIHE system, as they relate to methods of sustainably generating revenue for NIHEs;
- the study of the interactions among all of the components of the NIHE system, as they relate to methods of sustainably generating revenue for NIHEs and organizational change;
- the identification of a comprehensive list of the components of the NIHE system;
- the act of conducting a grounded theory study to inform a sustainable revenue generation model;
- the act of conducting current research into the interactions among the components of the NIHE system, methods of sustainably generating revenue for NIHEs, and organizational change in NIHEs;
- the inductive generation of a new sustainable revenue generation theory for NIHEs within the United States.

Moreover, grounded theory methodology enabled the literature that has been reviewed in this chapter, to be used as a source of data, as well as for the identification of gaps in the
literature. Noting that the gaps in the literature were used as data, in response to the recommendation of Glaser (2010b), who stated that the literature review should be used as data with constant comparative analysis to develop categories, the gap in the literature in this study was secondary to the data that was contained within the literature review. Glaser and Strauss (1967) who proposed that grounded theory could be restrained by beginning the research process with a literature review, and Glaser (1998) who suggested that a literature review is often irrelevant to grounded theory research also identified the primary nature of the literature review as data. Glaser (2010a) further suggested that a grounded theory literature review should not be used to identify gaps in the research but provide rationale and context for the study. Ultimately and significantly, grounded theory methodology uniquely enabled this study, to turn a body of literature that has limited relevant research, as well as limited current research, into data that, in part, informs a new theory.

Using grounded theory methodology, and with the research identified in this literature review as one data source, a theory was inductively generated. This theory states that a sustainable revenue generation system must continually include, and respond to, the multidirectional interactions of all system components as they change over time, including businesses, and that the result of this connectivity is both increased revenue and reduced student and government-funded tuition. This new sustainable revenue generation theory offers new possibilities for action while challenging conventional understanding (Gergen, 2009).

The gaps in current literature that have been filled by this study include:
• Gap 1: no studies emerged from the literature review that considered the interactions among all of the components of the NIHE system, as they relate to methods of sustainably generating revenue for NIHEs;

• Gap 2: no grounded theory study had been conducted to inform a sustainable revenue generation model;

• Gap 3: research into the interactions among some of the components of the NIHE system, as they relate to methods of sustainably generating revenue for NIHEs, is very limited and spread over a period of more than 5 years;

• Gap 4: numerous calls by researchers for new and sustainable methods of revenue generation;

• Gap 5: very limited and not current research involving change management in NIHEs and revenue generation.

More specifically, and in the context that as a grounded theory study this literature review is one of the sources of data for this study, this study filled Gap 1 by taking into consideration the interactions among all of the components of the NIHE system, as they relate to methods of sustainably generating revenue for NIHEs within the United States. Gap 1 was identified through the review of various articles and studies. The review includes the findings of Alstadsæter (2011), which were limited to a few components of the NIHE system, namely the significant and multifaceted value of higher education to both individuals and society. Alstadsæter research was also limited to the skill levels of both the individual and society increase, as they relate to levels of higher education.

Similarly, with a focus on the importance of collaboration between components of the
higher educational system with a spotlight on educational policy and reform, Kezar (2011) attempted to “to understand the experience of community-led partnerships and the role of culture in partnerships between community agencies and postsecondary institutions” (p. 205). Kezar identified cultural differences between specific components, namely community and postsecondary institutions, which Kezar (2011) determined needed to be understood and mitigated before effective communication, collaboration, and change could occur. McDevitt, Giapponi, and Solomon (2008) identified the interconnectivity of a few particular stakeholders including alumni in the classroom. Similarly, a paper by McCuddy, Pinar, and Gingerich (2008) identified the interconnectivity of two important stakeholders, students and potential employers, when they concluded that “even though tuition-paying students (and/or their parents) consider themselves to be customers of the educational establishment, they are responding - through their selection of academic programs, majors, and minors - to the employment marketplace” (p. 630). Additionally, limited to the importance of employers, McCuddy, Pinar, and Gingerich (2008) state that, “the needs and desires of employers for educated people who have the skills and competencies that can help their organizations survive and succeed” (p. 630) is the most important driver of curriculum development. Jones and Wellman (2010) focused on certain components such as governmental agencies. While the studies of the preceding researchers are important, and are included as part of the data of this study, each of those studies was limited and did not take into consideration the interactions among all of the components of the NIHE system, as they relate to methods of sustainably generating revenue for NIHEs.
Gap 2 is filled by this study because this study is a grounded theory study that informs a sustainable revenue generation theory. Through a review of the articles contained in this chapter, no research was performed with a grounded theory methodology, as well as with the purpose of generating a sustainable revenue generation model for NIHEs. Furthermore, no studies of any methodology were identified to be conducted for the express purpose of generating a sustainable revenue generation theory for NIHEs.

Gap 3 is filled by this study, because this study is current and includes research encompassing the interactions among the components of the NIHE system, as they relate to methods of sustainably generating revenue for NIHEs. While some research was identified to include certain interactions among the components of the NIHE system, most of this research was more than 5 years old and the research that was identified was limited. As an example, Eastman (2006) found that,

Not-for-profit universities are notorious for their limitless ambitions, their tendency to add new activities onto existing ones (rather than to cease doing some things), and their consequent inability to control costs. Howard Bowen's revenue theory of costs in higher education (that costs are a function of revenue, because universities raise all they can and spend all they raise) pertains to not-for-profits.

(p. 60)

Although the research of Eastman (2006) is relevant, this research is eight years old and does not encompass many interactions of system components. Similarly, Proper (2009), in a reaction to cuts in governmental funding, proposed a revenue generation
model that was based on philanthropy. Proper (2009) have based this model on the fact that “private colleges in the US, which comprise two-thirds of the sector, were largely formed by benefactions” (p. 150). However, this research is seven years old and only considers philanthropy as an important component to revenue generation. Likewise, Shah (2009) determined “that implementing quality programs leads to an increase in satisfaction among constituent groups, increase in revenue, and a reduction in costs [and that this] … increased satisfaction also leads to increase in revenue and reduction in costs” (p. 125). More than nine years ago, and limited in scope of components, Summers (2004), in an empirical analysis of historic quantitative data, identified several mathematical equations showing relationships among certain components of the higher educational revenue model at private liberal arts colleges. More than 11 years ago, in the context of nonprofit organizations, Trussel (2002) went on to identify “four financial indicators of financial vulnerability—the debt ratio, the revenue concentration index, the surplus margin, and the size of the organization—and control for the sector to which the organization belongs” (p. 11).

Gap 4 is filled by this study because this study answers the numerous calls by researchers for new and sustainable methods of revenue generation for NIHEs. Weisbrod and Asch (2010) found a need for a new revenue generation method because access and affordability to higher education in the United States has been negatively affected by the continual use of decades-old linear and static revenue generation models in institutions of higher education. A new revenue generation method has also been identified as necessary because social and individual spending on higher education has outpaced social and
individual economic growth, nonprofit institutions of higher education have grown dependent upon governmental subsidies and tuition, as major sources of revenue generation (Liu & Dubinsky, 2000). Weisbrod and Asch (2010) also determined that the use of the current revenue generation models has left NIHEs vulnerable to the current problem of declining investments, tighter credit, fewer charitable contributions, declining public funding, and more student financial need leading to a downward pressure resulting in decreased tuition revenue (p. 24). The stock and flow map in Figure 8 above, partial responds to calls for a new revenue generation system, because Figure 8 reflects the research of Luoma (2006) who provided a perspective of what should be included in a new revenue generating system for nonprofit institutions of higher education must focus on connectivity, co-evolution, reinforcing cycles, and self-organization.

Gap 5 is filled by this study because included in this study is research involving change management in NIHEs and revenue generation. In addition to the findings relevant to change management in NIHEs and revenue generation found in Chapter 4 of this study, which fill gap 5, in order to identify the gap, certain relevant research is included in this literature review. The research that identifies this gap includes that of Oliver and Hyun (2011) who concluded that widespread collaboration among groups in institutions of higher education is incongruent with the current organizational culture of higher education institutions. While this research is important, the scope of the study did not include revenue generation. Focusing on change only, Nye et al. (2010) confirm that history and indirectly human perception, not only affects change initiatives as Bordia et
al. (2011) determined, but the evaluation of change initiatives as well. Again, with a singular focus on change, Bold (2011) stated “that change management is an attitude, rather than a set of tools and techniques and that the successful businesses in many areas of activity are strongly influenced by the ability to exploit moments of transformation, moments of change” (p. 12). Most of the research involving change management did not include NIHEs or revenue generation. As a further example, Becker (2010) found that prior knowledge and established mental models hinder change efforts, while unlearning was found to mitigate some resistance to organizational change. The research by Becker (2010) is important and included as part of the data of this study but does not, in and of itself, have a connection to NIHEs and revenue generation. Furthermore, although not specific to NIHEs and revenue generation, internal influence on change management was identified by Bordia et al. (2011) who found that a history of poor change management, and the subsequent perceptions of change, “led to lower trust, job satisfaction and openness to change, and higher cynicism and turnover intentions” (p. 1). One study that did focus on change and NIHEs, but not revenue generation, is a case study by Oliver and Hyun (2011) who examined how certain components of four-year institutions of higher education collaborate during the curriculum change process. Oliver and Hyun (2011) concluded that, “the collaboration of various groups within the institution in the process promoted organizational change” (p. 2). Again, this is important data, which together with other data from the literature review, historic data, and phone interviews helped fill gap 5.
Summary and Conclusion

The literature review identifies a clear gap in empirical research between existing methods of revenue generation and the interactions among the components of the NIHE system, as they relate to methods of sustainably generating revenue for NIHEs, which this study begins to fill. Furthermore, this literature review identifies numerous calls for new and sustainable methods of revenue generations from researchers such as Rollwagen (2010), who stated that higher education institutions must “diversify their sources of income in order to live up to their mission as purposeful institutions in the emerging knowledge economy” (p. 11), and Jones and Wellman (2010), who argued that the financial “problems affecting higher education are not short-term but structural. … born of bad habits and an inattention to strategic financing and resource allocation” (p. 9). The research of Rollwagen, as well as Jones and Wellman, also supports the assertion of this literature review, which demonstrates a lack of current and relevant research into the interactions among the components of the NIHE system, as they relate to methods of sustainably generating revenue for NIHEs, as well as methods of sustainably generating revenue for private nonprofit universities and colleges in the United States. Additionally, both the components of the NIHE systems are identified, as well as the current methods of revenue generation. With the literature as a source of data, this study identified the interaction among components and constructs of the nonprofit university system, existing revenue generation methods, and sustainability of revenue generation, all in an effort to generate a new sustainable revenue theory for nonprofit universities within the United States. In Chapter 3, information about the research methods and the design of the study
are be detailed. These research methods, which include a qualitative study with a
grounded theory approach incorporating theoretical sampling, are congruent with the gap
in the literature regarding the interactions among the components of the NIHE system, as
they relate to methods of sustainably generating revenue for NIHEs, as well as the lack of
a sustainable revenue generation model for NIHEs. This congruency drove my choice of
method because grounded theory seeks to inductively generate theory, where little is
known (Charmaz, 2006; Creswell, 2007).
Chapter 3: Research Method

Through this study, I sought to understand the overall system-based interaction among components and constructs of the nonprofit university system, existing revenue generation methods, and sustainability of revenue generation, all in an effort to generate a new sustainable revenue theory for nonprofit universities within the United States. Mello and Flint (2009) suggested that grounded theory should be used to generate theory directly from field data. By generating a new revenue generation theory that improves revenue generation both systemically and sustainably, as well as increases the affordability and accessibility of higher education for students, it may be possible to help nonprofit higher educational institutions in the United States become more effective, thereby enabling citizens to become increasingly able to compete in regional, national, and global economies.

Due to the complex interaction between human motivation and financial systems, the generation of a new theory, which will mitigate the current lack of a sustainable revenue generation system that is congruent with all components of NIHEs, first requires qualitative data. Human interaction factors are best explored using qualitative methods, as quantitative data would be hard to obtain and incomplete (Mello & Flint, 2009). Grounded in the problem statement, this chapter describes the research methods that I employed in this qualitative study. The following discussion of research methods includes the design and approach, role of the researcher, setting and sample, data collection and analysis, instrumentation and materials, and protection of human
participants. Ethical considerations, protection of the participants, and protection of the data are also described.

**Research Design and Rationale**

The research design and approach are a function of the components of a study. The most effective research design and approach are found in the congruency between the research questions and the most effective method for attaining accurate answers (Corbin & Strauss, 2008; Creswell, 2007; Yin, 2009). I also considered the purpose of this study before choosing between the quantitative and the qualitative paradigm of research. Because this study explored a human phenomenon within particular social phenomena in which people work and live, namely revenue generation and NIHEs, qualitative research was the most appropriate. Human interaction factors are best explored using qualitative methods, as quantitative data would be hard to obtain and incomplete (Mello & Flint, 2009). In an effort to define qualitative research, Holloway (1997) stated,

> Qualitative research is a form of social inquiry that focuses on the way people interpret and make sense of their experiences and the world in which they live. A number of different approaches exist within the wider framework of this type of research, but most of these have the same aim: to understand the social reality of individuals, groups and cultures. Researchers use qualitative approaches to explore the behavior, perspectives and experiences of the people they study. The basis of qualitative research lies in the interpretive approach to social reality. (p. 2)
The different approaches of qualitative research include case studies, ethnography, grounded theory, narrative research, and phenomenology, which have similar design, fieldwork, data collection, and analysis strategies (Patton, 2002).

Of the five frequently cited methodologies, the process of grounded theory best fit the research questions and purpose. The use of a grounded theory approach involving sustainable revenue generation in NIHEs “is justifiable as it allows us to probe issues that cannot even be posed within the paradigms that have traditionally been accepted in [the] … area of finance theory” (Holland, 2001, p. 32). The grounded theory method is designed to inductively generate theory, where little is known, by developing coherent and contextually relevant new meanings and understandings about social processes that are shaped by the views of a large number of participants (Charmaz, 2006; Creswell, 2007). Straus and Corbin (1990) defined grounded theory as “a qualitative research method that uses a systematic set of procedures to develop and inductively derive grounded theory about a phenomenon” (p. 24). Glaser and Strauss (2008) determined that researchers who employ grounded theory seek meaning and understanding of processes, behaviors, and interactions within and across social constructs. Grounded theory also reflects the scarcity of current and relevant literature on this study’s research questions (Charmaz, 2006). Moreover, the principles and practices of grounded theory have explanatory power, as well as the possibility of theoretical generalizability of the findings from a study (Charmaz, 2006). Grounded theory also mitigated the university’s guideline of having approximately 85% of references within 5 years of completion of this study, unless identified from a historical perspective. The literature review consists of historical
data for this study, as recommended by Glaser (2010b), who suggested that the literature review be used as data with constant comparative analysis to develop categories.

As a result of the research questions, the scarcity of current and relevant literature, and the lack of a current revenue generation theory that is effective and sustainable at generating revenue for NIHEs, this study was based on qualitative grounded theory with theoretical sampling (see Figure 12). It had a multiphase design that involved “both sequential and concurrent strands over a period of time” (Creswell & Plano Clark, 2010, p. 196). Accord to Glaser (1978), theoretical sampling is,

The process of data collection for generating theory whereby the analyst jointly collects, codes and analyses the data and decides what data to collect next and where to find it, in order to develop the theory as it emerges. This process of data collection is “controlled” by the emerging theory. (p. 36)

A basic principle of grounded theory design is that one does not have a fully developed research plan before starting, because it is unknown at the start of a study which data or analysis instrument will be best to use (Luckerhoff & Guillemette, 2011). However, Charmaz (2006) determined that although detailed research plans are inconsistent with grounded theory methods, institutional review boards are requiring sufficient detail to assure that no harm will come to research participants and to ensure a successful and defendable research project (p. 30).

Based on the literature review, the first phase of data collection entailed the collection and broad analysis of historical data contained within publicly accessible financial reports of NIHEs. The second phase of data collection, partially in response to
the data collected the literature review and first phase, involved the collection of qualitative data derived from phone interviews. Subsequent phases of data collection, from any or all sources of data, continued until theoretical saturation. After saturation, theories emerged from the categories and themes derived during data analysis. Qualitative data have been chosen to provide an opportunity to understand how humans perceive and act in the current higher educational system, as well as how humans may perceive and act in a higher educational system that has any theory generated by this research as a component. The sample population for this qualitative study was composed of participants who were (a) students, faculty, and administration personnel from private nonprofit institutions of higher education located within the United States and stratified by region, private or public, and size of student population and (b) individual business leaders, stratified by region, industry, and number of employees.
Figure 12. Grounded theory methods chart.
Research Questions—Grounded Theory

The qualitative research questions for this study were essential. Research questions provide for measurement of the data generated by the study, identify the range of the research, match the research methodology, and present evidence to positively assess the study (Hurt & McLaughlin, 2012). Yin (2009) determined that a qualitative study is generally most effective for exploratory research questions. Charmaz (2006) suggested that for grounded theory research, initial research question should in general ask, “What’s happening here?” or “What meanings do different participants attribute to the process?” (p. 20). Yin (2009) identified how, what, and why questions as exploratory questions suitable for qualitative studies. Meltzer, Petras, and Reynolds (1975) determined that human behavior must be analyzed from both overt and covert dimensions, as a process that involves interpretative thought and observable action, as well as the two dimensions of interaction, namely the internal thought process and external action. The following research questions of this qualitative study were all exploratory.

1. What are the interactions between components of the NIHE system and revenue generation?
2. What are the interactions among components of the NIHE system, the current methods of revenue generation, and organizational change?
3. How can an analysis of the interactions identified in the first two questions be used to generate, inductively, a revenue generation theory, and how may this theory affect NIHEs?
Furthermore, grounded theory is used to generate a theory inductively from data where little is already known, as well as for analyzing and organizing data in a fashion that enables theory generation (Corbin & Strauss, 2008). Therefore, as stated earlier, because (a) current research into the interactions among the components of the NIHE system as they relate to methods of sustainably generating revenue for NIHEs is very limited, (b) grounded theory enables theory generation, (c) grounded theory is congruent with the research questions, and (d) grounded theory emphasizes process analysis, like revenue generation, over unit analysis (Glaser, 1978), I chose grounded theory.

Generally, the grounded theory approach has several stages. These stages include preparation, data collection, data analysis, memoing, sorting and theoretical outlining, and writing (Corbin & Strauss, 2008; Glaser & Strauss, 1967; Grounded Theory Institute, 2012). However, according to Suddaby (2006), one important stage of the Straussian school is constant comparison. Based on these stages of grounded theory, four main stages of grounded theory were incorporated in to this design: preparation, constant comparison analysis, theory development, and writing.

Several researchers have written about these four main stages of grounded theory. The Straussian school maintains that the literature review must be conducted before data are collected (Heath & Cowley, 2004; Jones & Noble, 2007). According to Steve, Reinking, and Arnold (2011), “Strauss' approach is attractive in terms of the guidance and structure it provides for the new researcher, making the novice more capable at performing grounded theory research” (p. 20). Based on the Straussian school, the major aspect of the preparation stage of this study was the literature review. Additionally, the
constant comparison stage begins with the literature review and continues through every phase of data collection and analysis. Additional phases of data collection include historical data and phone interviews. Furthermore, while the constant comparison analysis stage may drive changes in the data collected, this stage also drives theory development (Goldkuhl & Stefan, 2010). In this way, theory development is based on the concepts found in the literature review, as well as new concepts that emerge during data coding, constant comparison, and analysis. The writing stage involves the presentation of the data in various formats including comparisons, quotes, categories, themes, and other methods (Dexter & Prince, 2007).

**Role of the Researcher**

My roles as the researcher in this study were many. Grounded theorists need to demonstrate intellectual curiosity as well as possess logic, creativity, personal and professional experiences, imagination, and the ability to identify patterns (Corbin & Strauss, 2008). In addition, because the participants of a grounded theory study provide the source for meaning, researchers must have the capacity to research, analyze, and mitigate threats to data quality in an environment that is full of ambiguity (Charmaz, 2006; Corbin & Strauss, 2008). With this in mind and as the researcher, I had many roles in this qualitative study. First, each phase of the study required that I choose the sample using the technique of theoretical sampling. Second, I collected data from multiple sources of evidence, including historical data, phone interviews, and related documents. Third, I transcribed, coded, and analyzed the data, as well as interpreted the findings. Furthermore, in conducting the actual research, qualitative researchers may assume the
role of observer, participant, or observer-participant. Grounded in my methods of data collection, for this study I assumed the role of observer-participant. DeWalt and DeWalt (2010) maintained that "the goal for design of research using participant observation as a method is to develop a holistic understanding of the phenomena under study that is as objective and accurate as possible given the limitations of the method" (p. 92). I observed and interacted with participants just enough to establish an insider’s identity; however, I did not take part in those activities that made up the core of group membership.

Researchers must possess a certain level of knowledge of and sensitivity to individual and organizational constructs, in an effort to (a) stimulate possible areas of inquiry, (b) suggest characteristics of the central phenomenon, and (c) indicate possible relationships among emerging dimensions (Corbin & Strauss, 2008). However, this knowledge must not contain preconceptions that may introduce bias, as only the data define the study’s actual direction. In an effort to mitigate bias and enhance reliability and validity, a number of strategies, including member checking, were incorporated into this study. These strategies are described later in this chapter, in the Threats to Data Quality section.

**Methodology**

**Participant Selection Logic, Instrumentation, Recruitment, and Participation**

The setting and sample must be congruent with the research method. According to Charmaz (2006), grounded theory “favors analysis over description, fresh categories over preconceived ideas and extant theories, and systematically focused sequential data collection over large initial samples” (p. 187). The setting and sample are further
constrained by grounded theory methods, which dictate how detailed research plans are inconsistent with grounded theory, and how the lack of detail does not negatively affect an institutional review board’s need to assure the protection of participants or the quality of the research project (Charmaz, 2006). Therefore, in keeping with the grounded theory method that discourages detailed research plans but acknowledges the need for institutional review board and committee approval, only a general description of the setting and sample follows.

**Historic Data—Form 990—Phase 1.** The first phase entailed the collection and broad analysis of historical data. For Charmaz (2006) historical data are extant tests whereby “extant texts consist of varied documents that the researcher had no hand in shaping. Researchers treat extant texts as data to address their research questions…” (p. 35). Furthermore, researchers compare the style, contents, direction, and presentation of historical data to a larger discourse of which the extant tests are a part of (Charmaz, 2006, p. 35). As stated earlier, based on the data collected in the literature review the first phase entailed the collection and broad analysis of historical data contained within publicly accessible financial reports of NIHEs. These publicly accessible financial reports include IRS Form 990, as well as financial statements published by individual NIHEs. Accord to Glaser (1978), theoretical sampling is,

> The process of data collection for generating theory whereby the analyst jointly collects, codes, and analyses the data and decides what data to collect next and where to find it, in order to develop the theory as it emerges. This process of data collection is 'controlled’ by the emerging theory. (p. 36)
Based on this definition of theoretical sampling, data collection was based on an initial sample size of 10 different most representative and typical NIHEs, stratified by region, highest degree awarded, tuition rate, and number of students. As concepts were identified and the theory began to develop, further sampling outside the original sample was not necessary, and therefore not performed. I chose the sample from a list of NIHEs from the National Center for Education Statistics website, http://nces.ed.gov/collegenavigator/?s=all&ct=2&ic=1+2. Data from the historical documents were nominal or descriptive, coded by categories (parts of the overall NIHE system) and constructs, and inserted into NVivo and Excel in an effort to collect, organize, and analyze the data. Although numerous constructs were informed, relative to NIHEs, the initial constructs included revenue generation and sustainability of revenue generation.

**Interviews—Phase 2.** The second phase entailed semi-structured phone interviews. Semi-structured phone interviews provided me the opportunity to direct participants to provide information that is relevant to the issues under study (Charmaz 2006). During phase two of this study, participants were asked to reflect upon their experiences as they were guided through open-ended interview questions. Based on the definition of theoretical sampling, data collection was from (a) 40 students, 20 faculty, and 40 administration personnel and (b) 20 different most representative and typical individual business leaders, stratified by region, industry, and number of employees. As concepts were identified and the theory began to develop, no further sampling was needed. The sample was chosen from a list of NIHEs from the National Center for

Each request for a 45 minute phone interview had a cover letter explaining, the purpose of the study, the voluntary nature of the study, and contain a content form for participates’ to sign. The cover letter and consent form was emailed during a semester, with weekly email reminders to follow over the 160-day interview timeframe. The phone method was chosen over the face-to-face method because of the nature of the participants, the geographical location (the entire United States of America) of the sample, and the size of the sample. In an effort to track the request for phone interview and understand response rates, a log was kept. The participants’ responses were analyzed and interpreted as I observed each participant’s reactions, voice projections, and other cues during data collection (Charmaz, 2006). During the interview, I made sure that participants were actively engaged, as they provided data regarding their experiences and perceptions related to revenue generation in NIHEs. Follow up questions were asked to obtain a more detailed understanding of the concepts, experiences, and opinions.

Open-ended questions were incorporated into the phone interview for several reasons. In an effort to encourage unanticipated responses, open-ended interview questions are frequently incorporated into a grounded theory study (Charmaz, 2006). Open-ended interview questions were designed in a fashion that each participant was motivated to identify, analyze and reflect upon aspects of revenue generation in NIHEs. Based on data gathered the first two phases, and the characteristics of a phone interview, an interview form was developed which included open-ended and semi-structured questions that were designed to engage each participant to provide responses that address
and explore revenue generation in NIHEs (See Appendix C for a list of preliminary exploratory phone interview questions). Each interview question was designed to capture the fundamental nature of each participant’s experiences as a member of the NIHE system.

Data Collection

A grounded theory study may employ a number of data collection strategies, including interviews, document reviews, surveys, and existing research (Creswell, 2007; Glaser & Strauss, 2008). This study was comprised of a multiphase design, which involves “… both sequential and concurrent strands over a period of time…” (Creswell & Plano Clark, 2010, p. 196). Sequential in the sense that I initially performed the literature review, then collected Phase 1 data (IRS Form 990), then collected Phase 2 data (phone interview). Concurrent in the sense that while performing Phase 1, I went back and looked for more data from the literature review. Similarly, while performing Phase 2 data collection, I went back and looked for more data from both the literature review and Phase 1. The first phase entailed the collection and broad analysis of historical data (IRS Form 990) contained within publicly accessible financial reports of NIHEs. The second and final phase, partially in response to the data collected during the literature review and the first phase, involved the collection of qualitative data derived from phone interviews. NVivo, Excel, audio recordings of some of the phone interviews, and a research journal were used in an effort to collect data.

As depicted in Figure 12 and consistent with constant comparison, the first phase, which began upon IRB approval and continued until all data collection and analysis was
complete, entailed the collection of historical data contained within publicly accessible financial reports of NIHEs. These publicly accessible financial reports include IRS Form 990, as well as financial statements published by individual NIHEs. IRS Form 990 from each NIHE has been collected from the website http://www.guidestar.org/Home.aspx. Data collection was based on an initial sample size of 10 different NIHEs, stratified by region, private or public, and size of student population. As concepts were identified and the theory began to develop, no further sampling was needed to achieve saturation. The sample was chosen from a list of NIHEs that were located within the United States of America, from the National Center for Education Statistics website, http://nces.ed.gov/collegenavigator/?s=all&ct=2&ic=1+2. This theoretical sample was guided by constructs identified in the literature review and attributes such as region, highest degree awarded, tuition rate, and number of students. Specific participant data, including region and tuition rate, are described in Chapter 4.

During Phase 2 of this study, participants were asked to reflect upon their experiences as they are guided through open-ended interview questions during a 45 minute semi-structured phone interview. Largely due to the complexity of obtaining participants, the phone interviews were spread over a 160 day period. Data collection was from (a) 40 students, 20 faculty, and 40 administration personnel and, (b) 20 different most representative and typical individual business leaders, stratified by region, industry, and number of employees. As concepts were identified and the theory began to develop, no further sampling was needed to meet theoretical saturation. The sample was chosen from a list of NIHEs from the National Center for Education Statistics website,
An interview guide, which provides an outline of the interview procedure, was provided to each participant prior to the phone interview (see Appendix B). Specific participant data, including region and tuition rate, are described in Chapter 4.

**Data Analysis Plan**

Data analysis was performed in accordance with a typical grounded theory analysis. According to Trochim & Donnelly (2008), a typical grounded theory analysis includes several dynamic and multi-directional phases including, open-coding, constant comparison, theoretical re-sampling, theoretical memoranda, focused coding, theoretical saturation, and grounded theory integration (p. 285). Charmaz (2006), Corbin and Strauss (2008), and Glaser and Strauss (2008), suggested the use of a grounded theory analysis that includes open coding (level one coding), focused coding (level two coding), axial coding (level three coding), and theoretical coding or theory generation (level four coding), along with use of the constant comparative method. The qualitative data derived from the literature review, historical data, and phone interviews, of this study were coded with either descriptive or analytical codes that identify an attribute, theme, category, explanation, or configuration regarding revenue generation in NIHEs, as well as each of the three research question. NVivo and Excel were used to store, link, and analyze the data, as well as the various levels of codes. During the initial cycle of coding, I used open coding in order to focus and label large quantities of raw data. During the second cycle of coding, I used focused coding in an effort to reexamine the level one codes and develop categories. During the third cycle of coding, I used pattern coding, also called axial
coding, in an effort to identify any emerging themes, configurations, or explanations (Trochim & Donnelly, 2008). According to Saldana (2009), pattern or axial coding provides a technique for assembling summaries of collected data into smaller sets, themes, or constructs. Pattern coding was, therefore, used to group data summaries into smaller constructs, sets, or themes. The cycles of coding continue with constant comparison during each, until theoretical saturation had been achieved. Theoretical saturation occurred when the data collected no longer presented new information. Integrative diagrams have been used to help make sense of the data with respect to the emerging model (Trochim & Donnelly, 2008). A portion of the data was also transformed into quantitative data allowing some nominal data analysis. Some of the codes were similar to those used in Bennett’s (2010) study (p. 54). During the fourth cycle of coding, I used theoretical coding to develop a new sustainable revenue generation theory from the saturated categories and themes. Although other constructs were informed, relative to NIHEs, the initial constructs included revenue generation and sustainability of revenue generation.

**First research question.** The qualitative data derived from the literature review, historical data, and phone interviews, of this study were used to address the first research question and were coded with either descriptive or analytical codes that identify an attribute, theme, category, explanation, or configuration regarding revenue generation in NIHEs. Excel and NVivo were used to store, link, and analyze the data, as well as the various levels of codes. During the initial cycle of coding, I used open coding in order to focus and label large quantities of raw data. During the second cycle of coding, I used
focused coding in an effort to reexamine the level one codes and develop categories. During the third cycle of coding, I used pattern coding, also called axial coding, in an effort to identify any emerging themes, configurations, or explanations (Trochim & Donnelly, 2008). Pattern coding was; therefore, used to group data summaries into smaller constructs, sets, or themes. The cycles of coding continued with constant comparison during each, until theoretical saturation was achieved. Integrative diagrams have been used to help make sense of the data with respect to the emerging model (Trochim & Donnelly, 2008). A portion of the qualitative data was initially transformed into quantitative data allowing some nominal data analysis. The codes were similar to those used in Bennett’s (2010) study (p. 54). During the fourth cycle of coding, I used theoretical coding to develop theories from the saturated categories and themes.

**Second research question.** The qualitative data derived from the literature review, historical data, and phone interviews, of this study were used to address the second research question and were coded with either descriptive or analytical codes that identify an attribute, theme, category, explanation, or configuration regarding revenue generation in NIHEs. Excel and NVivo were used to store, link, and analyze the data, as well as the various levels of codes. During the initial cycle of coding, I used open coding in order to focus and label large quantities of raw data. During the second cycle of coding, I used focused coding in an effort to reexamine the level one codes and develop categories. During the third cycle of coding, I used pattern coding, also called axial coding, in an effort to identify any emerging themes, configurations, or explanations (Trochim & Donnelly, 2008). Pattern coding was; therefore, used to group data...
summaries into smaller constructs, sets, or themes. The cycles of coding continued with constant comparison during each, until theoretical saturation had been achieved. Integrative diagrams have been used to help make sense of the data with respect to the emerging model (Trochim & Donnelly, 2008). Consistent with the first research question, some nominal data analysis was performed after some of the initial data was transformed into quantitative data. The codes were similar to those used in Bennett’s (2010) study (p. 54). During the fourth cycle of coding, I used theoretical coding to develop theories from the saturated categories and themes.

**Third research question.** The qualitative data derived from the literature review, historical data, and phone interviews, of this study were used to address the third research question and were coded with either descriptive or analytical codes that identify an attribute, theme, category, explanation, or configuration regarding revenue generation in NIHEs. Excel and NVivo were used to store, link, and analyze the data, as well as the various levels of codes. During the initial cycle of coding, I used open coding in order to focus and label large quantities of raw data. During the second cycle of coding, I used focused coding in an effort to reexamine the level one codes and develop categories. During the third cycle of coding, I used pattern coding, also called axial coding, in an effort to identify any emerging themes, configurations, or explanations (Trochim & Donnelly, 2008). Pattern coding was used to group data summaries into smaller constructs, sets, or themes. The cycles of coding continued with constant comparison during each, until theoretical saturation was achieved. Integrative diagrams have been used to help make sense of the data with respect to the emerging model (Trochim &
Donnelly, 2008). During the fourth cycle of coding, I used theoretical coding to develop theories from the saturated categories and themes.

**Issues of Trustworthiness**

Dependability was enhanced through the use of (a) dependable data collection methods, (b) the data triangulation of multiple sources of data, namely the literature review, phone interview, and historic data, and (c) audit trails, where I kept a research journal which included the process of data collection, data analysis, coding.

Transferability, “the degree to which the results of qualitative research can be generalized or transferred to other contexts or settings” (Trochim & Donnelly, 2008, p. 149), was enhanced by adhering to the data collection and analysis procedures, as well as the inclusion of thick description. NVivo and Excel were used in an effort to collect, organize, and analyze the data. In keeping with Bennett’s (2010) methods, credibility was enhanced by (a) data triangulation of multiple sources of data, namely the literature review, phone interview, and historic data, and (b) member checking (p. 53). Member checking was used to as a technique to validate the interpretations and conclusions of the qualitative data by asking participant to verify the researcher’s interpretations of the data. As a strategy for ensuring data quality, member checks “is perhaps the most important strategy for determining the credibility of the researcher’s interpretation of the participants’ perceptions” (Teddlie & Tashakkori, 2009, p. 213).

Researcher bias in qualitative research is unavoidable, but manageable. As an example, the choice of a research topic shows a personal bias toward a particular subject and a particular perceived gap in knowledge. Furthermore, a researcher’s resources and
professional interests also shape focus and design of the researcher’s study. With this said, in order to establish confirmability, a researcher must “disclose their role (i.e., reflexivity) and [the role’s] impact on the interpretations they make in a study” (Creswell & Plano Clark, 2010, p. 267). However, with this knowledge, the negative effects of the bias can be mitigated, while the positive aspects of the researcher being an important part of the qualitative research process can be enhanced.

**Protection of Human Participants**

Other than for the literature review, Institutional Review Board (IRB) approval must be granted prior to the beginning of data collection and recruitment of participants. Walden University’s approval number for this study is 07-02-13-0064846. In an effort to comply with Walden’s ethical standards, U.S. federal regulations, and any applicable international guidelines, sound measures were taken to protect rights and identities of the participants and their organizations. Prior to beginning Phase 2 (interview) of this study, the approval and request to begin this study was sent to (a) the appropriate administrator of each NIHE in the sample, or individual participants that have been identified through the use of public databases, and (b) the appropriate administrator of each organization that employees the individual business leaders. Once permission was granted from the administrator of an NIHE, an individual member of a NIHE, or an individual business leader, the participants were asked to participate in this study. All participants were emailed a letter of consent that explains the timetable and procedures of the study (See Appendix D). Each participant was assured that any information that personally identifies them or any organization they are connected to, either from the historic data,
observations, and the phone interview, was confidential. Each participant was told that they can leave the study at any time without cause. Each participant was instructed to freely discuss any aspect study that is unclear. Additionally, each participant electronically signed the letter of consent. In an effort to ensure anonymity, pseudonyms were assigned to each participant and their respective organizations, including historical data. The data that were collected shall be stored in my home office in either a password protected computer or a locked file cabinet for at least 5 years.

**Summary**

Grounded in the problem statement, this chapter describes the research methods that I employed in this qualitative study. The discussion on research methods included the design and approach, role of the researcher, setting and sample, data collection and analysis, instrumentation and materials, and protection of human participants. Instrumentation, as well as other aspects of the research method were discussed for this qualitative study in detailed. Ethical considerations, protection of the participants, threats to data quality, and protection of the data, were also described. Consistent with methods and procedures described in this chapter, Chapter 4 provides the actual data that were collected, data analysis, threats to data quality, and results.
Chapter 4: Results

In this study, I designed the three research questions in an effort to examine the interactions among components of the nonprofit university system, existing revenue generation methods, and sustainability of revenue generation, all in an effort to generate a new sustainable revenue theory for nonprofit universities within the United States. This study was composed of a multiphase design, which involved “both sequential and concurrent strands over a period of time” (Creswell & Plano Clark, 2010, p. 196). The first phase entailed the collection and broad analysis of historical data contained within publicly accessible financial reports of 10 NIHEs, namely IRS Form 990s. The second and final phase, partially in response to the data collected during the literature review and the first phase, involved the collection of qualitative data derived from 120 individual phone interviews. The data derived from the literature review, historical data, and phone interviews of this study were coded with either descriptive or analytical codes that identified an attribute, theme, category, explanation, or configuration regarding revenue generation in NIHEs, as well as each of the three research questions. The results of my data analysis include a new revenue theory for NIHEs within the United States, which states that a sustainable revenue generation system must continually include, and respond to, the multidirectional interactions of all system components as they change over time, including businesses, and that this connectivity resulted in both increased revenue and reduced student and government-funded tuition. In Chapter 4, I list the research questions, describe the settings included in this study, describe the demographics of the
participants, describe how the data were analyzed, and present the findings, organized by each of the three research questions.

**Research Questions**

The three research questions were as follows:

1. What are the interactions between components of the NIHE system and revenue generation?
2. What are the interactions among components of the NIHE system, the current methods of revenue generation, and organizational change?
3. How can an analysis of the interactions identified in the first two questions be used to generate, inductively, a revenue generation theory, and how may this theory affect NIHEs?

**Research Setting**

In Phase 2, the phone interviews, I sought to collect data from participants identified as students, faculty, administrative personnel, and business leaders over a 60-day period of time. However, due to the complexities of privacy policies, gaining approval from NIHEs to obtain a list of student, faculty, and administrative personnel was very difficult. Therefore, I requested and received approval for a change in my participant recruitment methods from Walden’s IRB. Following approval by Walden’s IRB, my participant recruitment methods changed to include the use of public methods to obtain contact information of potential participants. Additionally, this change was prompted by the realization that public recruitment methods were available and appropriate for the population (students, faculty, administrators, and business leaders).
Furthermore, potential community partners suggested this public method of recruitment. As an example, the executive director of one NIHE’s IRB wrote in an email to me,

Your research proposal sounds very interesting and we appreciate that you have selected [intentionally deleted] University as a potential site. Unfortunately, due to privacy and confidentiality concerns, we are not able to provide a list of all faculty, students, and staff for such purposes. If you are interested in contacting University personnel for recruitment purposes, through use of information that is available to the public, this would not come under the purview of the [intentionally deleted] IRB. It would, however, be important that all recruitment and other research related efforts were consistent with the protocol as approved by the Walden University IRB.

This change, together with a population whose members were uncertain about how they could contribute, caused an expansion of the time to collect data by approximately 160 days. The setting of the phone interviews followed my plan, with the exception that I did not audio record all participants, as some participants preferred not to be recorded. The lack of an audio recording did not affect my data analysis. Moreover, Roderick (2009) noted that seminal theorist Glaser did not recommend recording or transcribing interviews. Roderick also cited Glaser’s (2001) statement that “Many still try to use standard data collection techniques until they shed them, especially set unites, interview guides and taping” They shed them as they see that they interfere with generating theory as GT purposes” (p. 46).
Demographics

Phase 1 (historical data from IRS Form 990) participants were composed of 10 different most representative and typical NIHEs, stratified by region, highest degree awarded, tuition rate, and number of students. The 10 NIHEs were from three different geographical regions. I purposefully identified the regions as east (east of the Mississippi River), central (east of the Rocky Mountains, and west of the Mississippi River), and west (west of the Rocky Mountains). Six of the 10 NIHEs were from the east region, two were from the central region, and two were from the west region. Four of the 10 NIHEs had a highest degree awarded as doctorate, one had master’s as the highest degree awarded, and five had bachelor’s as the highest degree awarded. Annual tuition rates ranged from approximately $11,000 per year to approximately $53,000 per year. Student populations of the 10 NIHEs ranged from approximately 600 to approximately 10,000 students.

Phase 2 participants (phone interview) were composed of (a) 40 students, 20 faculty, and 40 administration personnel and (b) 20 different most representative and typical individual business leaders, stratified by region, industry, and number of employees. The students, faculty, and administrative personnel were from similar demographics as the Phase 1 population. The geographical demographics of the business leader participants were as follows: 12 were from the east region, four were from the central region, and four were from the west region.
**Data Collection**

I interviewed 120 individuals by phone during Phase 2 and collected IRS Form 990 for 10 NIHEs during Phase 1. A grounded theory study may employ a number of data collection strategies, including interviews, document reviews, surveys, and existing research (Creswell, 2007; Glaser & Strauss, 2008). This study had a multiphase design, which involved “both sequential and concurrent strands over a period of time” (Creswell & Plano Clark, 2010, p. 196). The design was sequential in the sense that I initially performed the literature review, then collected Phase 1 data (IRS Form 990) followed by Phase 2 data (phone interview). It was concurrent in the sense that while performing Phase 1, I went back and looked for more data from the literature review. Similarly, while performing Phase 2 data collection, I went back and looked for more data from both the literature review and Phase 1. NVivo, Excel, audio recordings of some of the phone interviews, and a research journal were used in an effort to collect data.

As depicted in Figure 13 and consistent with constant comparison, the first phase, which began upon IRB approval and continued until all data collection and analysis were complete (approximately 10 months), entailed the collection of historical data contained within publicly accessible financial reports of 10 NIHEs. These publicly accessible financial reports were IRS Form 990, as well as financial data published by each of the 10 individual NIHEs. IRS Form 990 from each NIHE was collected from the website http://www.guidestar.org/Home.aspx and downloaded onto my home computer. Although data collection for the first phase lasted for approximately 10 months, I initially collected these data one NIHE at a time over a 2-week period. The data were then
transferred into Excel and NVivo for data analysis. Data collection was based on an initial sample size of 10 different NIHEs, stratified by region, private or public, and size of student population. As concepts were identified and the theory began to develop, no further sampling was needed to achieve saturation. The sample was chosen from a list of NIHEs that were located within the United States from the National Center for Education Statistics website, http://nces.ed.gov/collegenavigator/?s=all&ct=2&ic=1+2. This theoretical sample was purposefully guided by constructs identified in the literature review and attributes such as region, highest degree awarded, tuition rate, and number of students. As an example, I made sure that I had an NIHE representing each region of the United States, as well as NIHEs that were diverse in terms of degrees awarded, range of tuition rate, and number of students. I also, in an effort to minimize bias, limited the number of NIHEs that, due to their public image, I had some preconceived perception of, to three.

During Phase 2 of this study, participants were asked to reflect upon their experiences as they were guided through open-ended interview questions during a 45-minute semistructured phone interview. Largely due to the complexity of obtaining participants, the phone interviews were spread over approximately a 160-day period. Data collection was from (a) 40 students, 20 faculty, and 40 administration personnel and (b) 20 different most representative and typical individual business leaders, stratified by region, industry, and number of employees. My plan was initially to audio record all phone interviews directly into my password-protected home computer during the phone interviews; however, I did not audio record all participants, as over 80% of the
participants preferred not to be recorded. The lack of an audio recording did not affect my data analysis, as my field notes were very descriptive and detailed. Moreover, Roderick (2009) noted that seminal theorist Glaser did not recommend recording or transcribing interviews. Consistent with my experience, Roderick cited Glaser’s (2001) statement that “Many still try to use standard data collection techniques until they shed them, especially set units, interview guides and taping. They shed them as they see that they interfere with generating theory as GT purposes” (p. 46).

The data were then transferred into Excel and NVivo for data analysis on my password-protected home computer. As concepts were identified and the theory began to develop, no further sampling was needed to meet theoretical saturation. Moreover, theoretical saturation was met well before 120 individuals were interviewed, and in retrospect, the sample size could have been smaller. The sample was chosen from a list of NIHEs from the National Center for Education Statistics website, http://nces.ed.gov/collegenavigator/?s=all&ct=2&ic=1+2. An interview guide, which provided an outline of the interview procedure, was provided to each participant prior to the phone interview (see Appendix B).

Data Analysis

In an effort to answer the three research questions, data were collected and analyzed from three sources. As depicted in Figure 13 below, the three sources were (a) the literature review, (b) Phase 1—historic data (IRS Form 990), and (c) Phase 2—phone interviews.
Figure 13. Data analysis—Grounded theory methods chart.
Analysis of Literature Review

The analysis of the literature review focused on three main areas derived from my research questions, namely components of the NIHE system, revenue generation, and organizational change. My initial cycle of coding, an open coding analysis of the literature review, identified many components of the NIHE system, including the following: society, government, alumni, accreditation bodies, faculty, department leaders, students, boards, administrators, registrar, suppliers, tuition-paying students (and/or their parents), academic programs, majors, minors, employers, interdependency of student needing employer, employer needing student, university needing student, employer needing university, entrepreneurial activity students, donors, corporations, politicians, and governmental agencies. However, during a second pass at open coding, I reexamined my initial codes in an effort to minimize redundancy. As a result of the various iterations of open coding, Table 2 below identifies the components of the NIHE system derived from the literature review. I did not code the data from the literature review by themselves beyond the development of codes through open coding because this analysis would have been myopic and lacked the depth that the combination of the other data sources (historical and phone interview) would provide.
In addition, my initial cycle of an open-coding analysis of the literature review identified several methods of revenue generation that are currently being used in the general NIHE system, including the following: tuition, governmental funding, cost cutting, and philanthropy. During a second pass at open coding, I reexamined my initial codes in an effort to minimize redundancy. As a result of the various iterations of open coding, Table 3 below identifies current perspectives regarding revenue generation methods in NIHEs derived from the literature review. Again, I did not code these data...

Table 2

<table>
<thead>
<tr>
<th>NIHE system components</th>
<th>Factor interacts with other components</th>
<th>Factor independent or dependent upon components</th>
</tr>
</thead>
<tbody>
<tr>
<td>Society</td>
<td>X</td>
<td>Dependent</td>
</tr>
<tr>
<td>Government (and its agencies)</td>
<td>X</td>
<td>Dependent</td>
</tr>
<tr>
<td>Alumni</td>
<td>X</td>
<td>Dependent</td>
</tr>
<tr>
<td>Accreditation bodies</td>
<td>X</td>
<td>Dependent</td>
</tr>
<tr>
<td>Faculty</td>
<td>X</td>
<td>Dependent</td>
</tr>
<tr>
<td>Department leaders</td>
<td>X</td>
<td>Dependent</td>
</tr>
<tr>
<td>Students</td>
<td>X</td>
<td>Dependent</td>
</tr>
<tr>
<td>Employers</td>
<td>X</td>
<td>Dependent</td>
</tr>
<tr>
<td>Administrators</td>
<td>X</td>
<td>Dependent</td>
</tr>
<tr>
<td>Research</td>
<td>X</td>
<td>Dependent</td>
</tr>
<tr>
<td>Suppliers</td>
<td>X</td>
<td>Dependent</td>
</tr>
<tr>
<td>Parents of students</td>
<td>X</td>
<td>Dependent</td>
</tr>
<tr>
<td>Academic programs</td>
<td>X</td>
<td>Dependent</td>
</tr>
<tr>
<td>Donors</td>
<td>X</td>
<td>Dependent</td>
</tr>
<tr>
<td>Corporations</td>
<td>X</td>
<td>Dependent</td>
</tr>
<tr>
<td>Politicians</td>
<td>X</td>
<td>Dependent</td>
</tr>
</tbody>
</table>

Acknowledgement—components are connected
from the literature review by themselves beyond the development of codes through open

coding because this analysis would have been myopic and lacked the depth that the

combination of the other data sources (historical IRS 990s and phone interview) would

provide.

Table 3

*Revenue Generation Methods of NIHEs From the Literature Review—Open Coding*

<table>
<thead>
<tr>
<th>Perspectives regarding existing revenue generation methods</th>
<th>Factor current method</th>
<th>Factor future method</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not sustainable</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Not innovative</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Not diversified</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Current structural issues</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Must include quality programs and satisfied stakeholders</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Focuses on revenue over education and research</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Need for systemic approach</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>&quot;Cost disease&quot; paradigm</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Tuition (increasing it at a time of high tuition)</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Governmental funding (increasing it at a time of falling funding)</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Cutting certain costs</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Financial aid</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Endowments (parents, alumni, corporations, others)</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Sale of services</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Funding priorities</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Export higher education (foreign students)</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Poor financial culture—&quot;spend all you can raise&quot;</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Philanthropy (foundations, alumni, other organizations)</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Strategic alliances with other institutions</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Increase marketing</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Old linear and static methods; not rational</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Must support teaching and research</td>
<td>X</td>
<td></td>
</tr>
</tbody>
</table>
My initial cycle of an open coding analysis of the literature review also identified several perspectives regarding organizational change that are currently pervasive in the general NIHE system including the following: old linear and static methods, poor change management, and slow to change. During a second pass at open coding, I again reexamined my initial codes in an effort to minimize redundancy. As a result of the various iterations of open coding, Table 4 below identifies current perspectives regarding organizational change in NIHEs derived from the literature review. Again, I did not code this data from the literature review by itself beyond the development of codes through open coding because this analysis would be myopic and lack the depth that the combination of the other data sources (historic IRS 990s and phone interview) would provide.

Table 4

*Organizational Change in NIHEs From the Literature Review—Open Coding*

<table>
<thead>
<tr>
<th>Perspectives regarding organizational change</th>
<th>Factor current</th>
<th>Factor future</th>
</tr>
</thead>
<tbody>
<tr>
<td>Slow to change</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Poor collaboration</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Personality traits affecting change management</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Need cross functional teams</td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>Need communication</td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>Need for interconnectivity between components</td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>Need macro approach</td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>Not rationally exploring options</td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>Old linear and static methods</td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>Poor change management</td>
<td></td>
<td>X</td>
</tr>
</tbody>
</table>
Analysis of Historical Data

During my initial cycle of coding (open coding) I was able to collect and analyze quantitative and qualitative data from IRS Form 990 and other financial data that were filed and publicly accessible by 10 NIHEs. In order to provide some context for the data collected during this phase, I have included a blank IRS Form 990 in the Appendix of this study, more particularly Appendix E. Figure 14 below identifies certain revenue components of the NIHE revenue system with several preliminary relationships. As an example, an inverse relationship in several NIHEs seems to exist between Tuition Fees and Sales and Services of Auxiliary Enterprises. This inverse relationship is most evident in the NIHE with a Tuition Rate of $42,852, as well as the NIHE with a Tuition Rate of $53,204. A similar inverse relationship was found between Program Services Revenue and Sales and Services of Auxiliary Enterprises, with particular attention to the NIHE with a Tuition Rate of $42,852, as well as the NIHE with a Tuition Rate of $53,204.
Figure 14. Revenue components of NIHE system from IRS Form 990 as a percentage of total revenue.

Figure 15 identifies a typical inverse relationship between expenses and net revenue. Additionally, the same inverse relationship between Tuition Fees and Sales and Services of Auxiliary Enterprises identified in Figure 14 that is most evident in the NIHE with a Tuition Rate of $42,852, as well as the NIHE with a Tuition Rate of $53,204, also informs an inverse relationship in the these two NIHEs between Services of Auxiliary Enterprises and Revenue less Expenses, as well as between Program Services Revenue and Sales and Revenue less Expenses. Moreover, Figure 16 shows a similar inverse relationship with respect to Endowment, as well as a range in Endowment between NIHEs, which is also identified in Figure 17 below.
Figure 15. Expense components of NIHE system from IRS Form 990 as a percentage of total revenue.
Figure 16. Endowment component of NIHE system from IRS Form 990 as a percentage of total revenue.
Figure 17. Components of NIHE system from IRS Form 990 as a percentage of total revenue (mean, median, and standard deviation).

Figures 18 through 21 below, are further examples of my initial analysis, which together with my notes and other analysis informed my initial open coding analysis for this data as shown in Table 5. I purposefully did not code those historic data by themselves beyond the development of initial open codes because this analysis would be myopic and lack the depth that the combination of the other data sources (literature review and phone interview) would provide.
Figure 18. Components of NIHE system from IRS Form 990 as a percentage change from prior year.
Figure 19. Components of NIHE system from IRS Form 990 as a percentage change from prior year (mean, median, and standard deviation).
Figure 20. Revenue components of NIHE system from IRS Form 990 as a percentage of total expense.
Figure 21. Revenue components of NIHE system from IRS Form 990 as a percentage of contributions and grants.
Table 5

Aspects of Revenue Generation Methods of NIHEs From the Historic Data—Open Coding

<table>
<thead>
<tr>
<th>Perspectives regarding existing revenue generation methods</th>
<th>Factor current method</th>
<th>Factor future method</th>
</tr>
</thead>
<tbody>
<tr>
<td>Highly variable and dynamic</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Dependent on peer reviews</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Dependent on historic and market data</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Decisions based on peer reviews</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Student housing may generate revenue</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Highly structured</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Hierarchical structural</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Uses consultants and internal boards</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Revenue from health services and oil and gas can be substantial</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Follows others</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Uses alumni volunteers</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Faculty practice income can be substantial</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Research income</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Endowments are highly variable</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Tuition rate does not generally correlate directly with many components of the system</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Program services revenue can be substantial</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Program services revenue affects other components of the system</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Unstable revenue generation</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Non-linear</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Inconsistent</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Dependent on a few revenue sources</td>
<td>X</td>
<td></td>
</tr>
</tbody>
</table>

Analysis of Phone Interviews with Literature Review and Historic Data

The analysis of the data that I collected during the phone interview (Phase 2) began with an open coding analysis of the data obtained during the phone interview phase of data collection without the influence of data from other data sources. My open coding
analysis identified interactions and perspectives regarding organizational change, revenue generation, and system components. Table 6, Table 7, and Table 8 represent important interactions and perceptions regarding methods of revenue generation, organizational change, and NIHE system components.
### Table 6

**Interactions and Perspectives of Revenue Generation Methods of NIHEs—Open Coding**

<table>
<thead>
<tr>
<th>Interactions and perspectives regarding revenue generation methods</th>
<th>Factor current method</th>
<th>Factor future method</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not sustainable</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Student savings and employment</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Cost reduction through the use of adjuncts</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Unaffordable</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Increase governmental spending</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Revenue motivates NIHEs more than educational mission</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Current cost of education affects choice and value</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Governmental support (Federal, State, Local)</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Tuition (too high tuition - hurts student's family)</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Loan programs (size of loans hurt future)</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Causes underemployment</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Government should provide more tax incentives</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Endowments &amp; Donations (parents, alumni, corporations, others)</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Current governmental cuts are an issue</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Satisfied students will result in endowments</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Students volunteer to leverage some future income in exchange for payment of tuition</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Loan programs should be modified</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Government needs to be involved for the protection of the student (HE is for a public good)</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Possible investment vehicle [HEIT (Higher Education Investment Trust)] needs to be nonprofit</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Scholarship programs help lower net tuition</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Cost of administration is too high and growing</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Patient generation</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Arts</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Cost of tuition can force students to focus on work rather than school</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Cost of tuition should be zero</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Need increases in donations and endowments</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Limit corporate influence even if they donate (and NIHE influence on student if there are scholarships)</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Revenue generation must maintain academic freedom</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Grants</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Exportation of education (foreign students) can generate revenue</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>NIHE's reputation affects revenue</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Work study programs and internships</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Limit governmental involvement in Higher Education (HE)</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Fundraising</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Rate of tuition making HE unobtainable</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Rate of tuition creates a burden on students</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Antiquated system</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Business should be more involved</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Sponsorships</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>System is not equitable</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Churches</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Need to find new sources of revenue</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Continuing ed programs</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Lease buildings</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>High price equal prestige and low price equals low prestige</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Low prestige equals low demand</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>NIHE's that innovate in revenue generation will result in a competitive advantage</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Need balance between social good and revenue</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Dormitories are revenue generators</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>NIHEs are not good managers of money</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Customer wants less for their money not more (less work) but the return for HE is social good, salary, happiness, and productiveness</td>
<td>X</td>
<td></td>
</tr>
</tbody>
</table>
Table 7

*Interactions and Perspectives of System Components of NIHEs—Open Coding*

<table>
<thead>
<tr>
<th>NIHE system components and interactions</th>
<th>Factor interacts with other components</th>
<th>Factor independent or dependent upon components</th>
</tr>
</thead>
<tbody>
<tr>
<td>Other NIHEs</td>
<td>X</td>
<td>Dependent</td>
</tr>
<tr>
<td>Government (and its agencies)</td>
<td>X</td>
<td>Dependent</td>
</tr>
<tr>
<td>Alumni</td>
<td>X</td>
<td>Dependent</td>
</tr>
<tr>
<td>Accreditation Bodies</td>
<td>X</td>
<td>Dependent</td>
</tr>
<tr>
<td>Faculty</td>
<td>X</td>
<td>Dependent</td>
</tr>
<tr>
<td>Buildings and other physical facilities</td>
<td>X</td>
<td>Dependent</td>
</tr>
<tr>
<td>Students</td>
<td>X</td>
<td>Dependent</td>
</tr>
<tr>
<td>Community</td>
<td>X</td>
<td>Dependent</td>
</tr>
<tr>
<td>Administrators/staff</td>
<td>X</td>
<td>Dependent</td>
</tr>
<tr>
<td>Research</td>
<td>X</td>
<td>Dependent</td>
</tr>
<tr>
<td>Career services</td>
<td>X</td>
<td>Dependent</td>
</tr>
<tr>
<td>Health services</td>
<td>X</td>
<td>Dependent</td>
</tr>
<tr>
<td>Academic Programs</td>
<td>X</td>
<td>Dependent</td>
</tr>
<tr>
<td>Sports</td>
<td>X</td>
<td>Dependent</td>
</tr>
<tr>
<td>Companies/Employers</td>
<td>X</td>
<td>Dependent</td>
</tr>
<tr>
<td>HR department</td>
<td>X</td>
<td>Dependent</td>
</tr>
<tr>
<td>Ethics board</td>
<td>X</td>
<td>Dependent</td>
</tr>
<tr>
<td>Foundations</td>
<td>X</td>
<td>Dependent</td>
</tr>
<tr>
<td>Lenders</td>
<td>X</td>
<td>Dependent</td>
</tr>
<tr>
<td>Board of Directors</td>
<td>X</td>
<td>Dependent</td>
</tr>
</tbody>
</table>
Table 8

Interactions and Perspectives of Organizational Change of NIHEs—Open Coding

<table>
<thead>
<tr>
<th>Perspectives regarding organizational change</th>
<th>Factor</th>
<th>Factor</th>
</tr>
</thead>
<tbody>
<tr>
<td>Slow to change</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Research focus can change quickly but organizational and instructional quality are very difficult to change</td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>Personality traits affecting change management</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Not adaptable to change</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Even small change requires a lot of effort</td>
<td></td>
<td>X</td>
</tr>
</tbody>
</table>

During the second cycle of coding, I used focused coding in an effort to reexamine the level one codes and develop categories, which added focus to the interactions regarding methods of revenue generation, organizational change, and NIHE system components. The focus was enhanced by the inclusion of open coded data from both the literature review and historic data. In addition, I employed constant comparison and member checking throughout the coding process. During the third cycle of coding, I used pattern or axial coding, to identify emerging themes, configurations, explanations, or constructs. Coding continued until theoretical saturation was achieved. As a result of the first three levels of coding, Table 9, Table 10, and Table 11 represent important interactions and perceptions regarding methods of revenue generation, organizational change, and NIHE system components. These interactions were used during the fourth cycle of coding, theoretical coding, to develop theories from the saturated categories and themes. These theories are provided below, in response to each research question.
Table 9

*Interactions and Perspectives of Revenue Generation Methods of NIHEs—Axial Coding*

<table>
<thead>
<tr>
<th>Interactions and perspectives regarding revenue generation methods</th>
<th>Factor current method</th>
<th>Factor future method</th>
</tr>
</thead>
<tbody>
<tr>
<td>Currently requires substantial change and innovation</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>A large number of complex interactions between components of an</td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>NIHE affect short-term and long-term revenue generation</td>
<td></td>
<td></td>
</tr>
<tr>
<td>A static and hieratical system will negatively affect long-term</td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>revenue generation and sustainability</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Reduce dependency on governmental subsidies and tuition for</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>revenue generation</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Open and multidirectional connections between all system</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>components will increase revenue sustainability</td>
<td></td>
<td></td>
</tr>
<tr>
<td>A large focus on revenue generation methods, by various</td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>components of the NIHE system, is negatively affecting the NIHE</td>
<td></td>
<td></td>
</tr>
<tr>
<td>mission of education</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Current cost of education negatively affects choice, access, and</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>value</td>
<td></td>
<td></td>
</tr>
<tr>
<td>NIHE's more directly connected to the general economy will enhance</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>revenue generation and sustainability</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dysfunctional revenue generation methods negatively affect multiply</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>aspects of society</td>
<td></td>
<td></td>
</tr>
<tr>
<td>NIHE's, governments, employers, and students are important</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>components</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Endowments &amp; Donations (parents, alumni, corporations, others) are</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>an important component</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Satisfied system components will enhance revenue generation</td>
<td>X</td>
<td></td>
</tr>
</tbody>
</table>
Table 10

*Interactions and Perspectives of Organizational Change of NIHEs—Axial Coding*

<table>
<thead>
<tr>
<th>Interactions and perspectives—Organizational change</th>
<th>Factor current</th>
<th>Factor future</th>
</tr>
</thead>
<tbody>
<tr>
<td>Organizational culture is incongruent with organizational change</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Open and multidirectional connections between all system components will increase adaptability to change</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Organizational change will take time</td>
<td>X</td>
<td></td>
</tr>
</tbody>
</table>
Table 11

*Interactions and Perspectives of System Components of NIHEs—Axial Coding*

<table>
<thead>
<tr>
<th>NIHE system components and interactions</th>
<th>Factor interacts with other components</th>
<th>Factor independent or dependent upon components</th>
</tr>
</thead>
<tbody>
<tr>
<td>Other NIHEs</td>
<td>X</td>
<td>Dependent</td>
</tr>
<tr>
<td>Government (and its agencies)</td>
<td>X</td>
<td>Dependent</td>
</tr>
<tr>
<td>Alumni</td>
<td>X</td>
<td>Dependent</td>
</tr>
<tr>
<td>Accreditation Bodies</td>
<td>X</td>
<td>Dependent</td>
</tr>
<tr>
<td>Faculty</td>
<td>X</td>
<td>Dependent</td>
</tr>
<tr>
<td>Buildings and other physical facilities</td>
<td>X</td>
<td>Dependent</td>
</tr>
<tr>
<td>Students</td>
<td>X</td>
<td>Dependent</td>
</tr>
<tr>
<td>Community/Society</td>
<td>X</td>
<td>Dependent</td>
</tr>
<tr>
<td>Administrators/staff</td>
<td>X</td>
<td>Dependent</td>
</tr>
<tr>
<td>Research</td>
<td>X</td>
<td>Dependent</td>
</tr>
<tr>
<td>Career services</td>
<td>X</td>
<td>Dependent</td>
</tr>
<tr>
<td>Health services</td>
<td>X</td>
<td>Dependent</td>
</tr>
<tr>
<td>Academic Programs</td>
<td>X</td>
<td>Dependent</td>
</tr>
<tr>
<td>Sports</td>
<td>X</td>
<td>Dependent</td>
</tr>
<tr>
<td>Companies/Employers</td>
<td>X</td>
<td>Dependent</td>
</tr>
<tr>
<td>HR department</td>
<td>X</td>
<td>Dependent</td>
</tr>
<tr>
<td>Ethics board</td>
<td>X</td>
<td>Dependent</td>
</tr>
<tr>
<td>Foundations/Donors</td>
<td>X</td>
<td>Dependent</td>
</tr>
<tr>
<td>Lenders</td>
<td>X</td>
<td>Dependent</td>
</tr>
<tr>
<td>Suppliers</td>
<td>X</td>
<td>Dependent</td>
</tr>
<tr>
<td>Parents of Students</td>
<td>X</td>
<td>Dependent</td>
</tr>
<tr>
<td>Politicians</td>
<td>X</td>
<td>Dependent</td>
</tr>
</tbody>
</table>

Acknowledgement - components are connected

**Evidence of Trustworthiness**

Evidence of trustworthiness is found throughout this study. As discussed in Chapter 3, the criteria that serve as evidence for trustworthiness are dependability,
transferability, credibility, and confirmability (Trochim & Donnelly, 2008).

Dependability was enhanced through the use of (a) dependable data collection methods, (b) the data triangulation of multiple sources of data, namely the literature review, phone interview (Phase 1), and historic data (Phase 2), and (c) audit trails, where I kept a research journal which included the process of data collection, data analysis, coding. Transferability, “the degree to which the results of qualitative research can be generalized or transferred to other contexts or settings” (Trochim & Donnelly, 2008, p. 149), was enhanced by adhering to the data collection and analysis procedures, as well as the inclusion of thick description. My research journal, NVivo, and Excel were used in an effort to collect, organize, and analyze descriptive and detailed data. In keeping with Bennett’s (2010) methods, credibility was enhanced by (a) data triangulation of multiple sources of data, namely the literature review, phone interview, and historic data, and (b) member checking (p. 53). Member checking was used to as a technique to validate the interpretations and conclusions of the qualitative data by asking participant to verify the researcher’s interpretations of the data. I found participants more than willing to engage in member checking and that the member checking process also enabled participants to identify new data, interactions, and perceptions. As a strategy for ensuring data quality, member checks “is perhaps the most important strategy for determining the credibility of the researcher’s interpretation of the participants’ perceptions” (Teddle & Tashakkori, 2009, p. 213).

Researcher bias in qualitative research is unavoidable, but manageable. As an example, the choice of a research topic shows a personal bias toward a particular subject
and a particular perceived gap in knowledge. Furthermore, my resources and professional interests also shaped the focus and design of this study. With this said, in order to establish confirmability, a researcher must “disclose their role (i.e., reflexivity) and [the role’s] impact on the interpretations they make in a study” (Creswell & Plano Clark, 2010, p. 267). However, with this knowledge, I mitigated the negative effects of this bias, while the positive aspects of me being an important part of the qualitative research process were enhanced. As an example, although I teach at several public universities, which are by definition not part of the population of this study, I was always aware that my personal experience in higher education might affect my perception and analysis of the data. I used reflexivity to increase the level of confirmability.

**Results Relative to Research Questions**

After analyzing the data from the literature review, historic documents, and the phone interviews relative to the interactions regarding methods of revenue generation, organizational change, and NIHE system components, I attempted to assess how this qualitative data might contribute toward finding answers to this study’s research questions. Following are the results relative to the three research questions.

**Results for Research Question 1**

The first research question asked, “What are the interactions between components of the NIHE system and revenue generation?” The findings for the first research question were:
• Finding 1: My analysis of the data from all three data sources clearly indicates that significant, multifaceted, and comprehensive interactions between the components of the NIHE system and revenue generation exist.
• Finding 2: The interactions are all-inclusive between each component of the NIHE system and revenue generation.
• Finding 3: Many of the issues currently associated with revenue generation in NIHEs are related to a lack of recognition of the significance of the interactions between components of the NIHE system and revenue generation.

These interactions are depicted in Figure 22, below.

As an example, in addition to Table 3 above, data from the literature review that supports these results include the following excerpts: (a) Weisbrod and Asch (2010) showed how institutions of higher education have maintained decades-old linear and static revenue generation models which have left them vulnerable to the current “perfect storm of falling investments, credit tightening, declining private contributions from individuals and corporations, declining state funding, and increased student financial need leading to decreased tuition revenue” (p. 24); (b) Shah (2009) determined “that implementing quality programs leads to an increase in satisfaction among constituent groups, increase in revenue, and a reduction in costs [and that this] … increased satisfaction also leads to increase in revenue and reduction in costs” (p. 125); (c) New revenue generating systems for nonprofit institutions of higher education must focus on connectivity, co-evolution, reinforcing cycles, and self-organization (Luoma, 2006); (d) Eastman (2006) suggested that because the components of revenue generation are so
closely connected to the balance of the overall university system that a university’s mission changes as the need for revenue generation increases; (e) Eastman (2006) also found that a strategy of raising revenue through increasing class size and student population resulted in a bifurcation of teaching and research where teaching received most human resources and research was minimized (p. 56); (f) Marginson (2011), in another clear indication of the interconnection and dependencies between components of the higher educational system and revenue generation, also cautioned that an increase in supply of foreign students had an effect on other system components, such as community, with specific concerns about immigration policy; (g) As a result of an analysis by Barrett (2010), the author concluded that competitive intelligence (CI) is one tool which aided in the creation of revenue while mitigating some of the threats. For Barrett (2010),

The CI process within higher education notes that programs must be competitive and relevant, operations must be efficient, networks must have cross functionality and the institution must have in place systems that seek pertinent and relevant information from within and across their sectors. Innovation will be a cornerstone in these processes; resistance to change must be eliminated. (p. 30);

(h) Pathak and Pathak (2010) identified several components of the higher educational system as well as components of a revenue generation model in their paper regarding reconfiguring the education value chain. In their paper Pathak and Pathak (2010) not only proposed a new value chain for higher education with new drivers and internal linkages (see Figure 1, Chapter 2), but also “proposed that the academic process can be unbundled into discrete components which have well developed measures” (p. 166). These discrete
components are congruent with the works of many other scholars including Dew (2009) and Oliver and Hyun (2011); (i) Slaughter and Rhoades (2004) found in relation to revenue generation in institutions of higher education that there were “spheres of interactivity that had no boundaries” (p. 11). This interactivity has resulted in cost and revenue generation for higher education through entrepreneurial activity (Barrett, 2010; Slaughter & Rhoades, 2004). The interconnection of system components and the importance of the corporate sector was further supported by Barrett (2010) who stated “Kirp [2003] stressed that priorities in higher education were not necessarily determined by the institution but by external constituencies such as students, donors, corporations, and politicians” (p. 27); (j) This bidirectional interdependency of student needing employer, employer needing student, university needing student, and employer needing university, clearly highlights the importance of the interactions among components of the nonprofit university system, as well as the importance of communication between stakeholders in institutions of higher education as identified by the research of Smith and Wolverton (2010); (k) McDevitt, Giapponi, and Solomon (2008), suggested that an attempt to get alumni involved in one aspect of the organization such as classroom activities could, with a systemic network approach, also provide an opportunity for scholarship or research initiatives; (l) McCuddy, Pinar, and Gingerich (2008) identified the interconnectivity of two important stakeholders, students and potential employers, when they concluded that “even though tuition-paying students (and/or their parents) consider themselves to be customers of the educational establishment, they are responding--through their selection of academic programs, majors, and minors--to the
employment marketplace” (p. 630); (m) Nair, Bennett and Mertova (2010) concluded that in order to affect positive change, student feedback must be collected and acted upon with ample support for academic staff (p. 553). Congruently, while identifying the registrar and suppliers as additional key stakeholders, Sohail, Daud, and Rajadurai (2006) also suggested that cross functional teams are an important aspect of an effective higher educational system; and (n) Randall and Coakley (2007) determined that “leadership in today's academia should take into account the needs and demands of various stakeholders… [and] … for the institution to flourish in today's environment … requires innovation and input from all relevant stakeholders” (p. 326).

Data from data collection Phase 1, the historical data that supported this finding include Table 5 above, as well as Figure 14 through Figure 21 above, which identify numerous interactions between the system components and revenue generation. Some of the interactions are more subtle such as in Figure 14, where tuition rate is high but also program services revenue is also high, due to the interactions of this particular NIHE with the companies/employers component, as identified in Table 11 above. In the same manner, Figure 16 above identifies a large variation in endowment between NIHEs, which is partially informed by the NIHEs with strong interactions with the alumni component, as identified in Table 11.

Data from Phase 2 of the data collection phase, the phone interviews, also supports this finding. As an example, participant A2301, an administrator of a NIHE, identifies how an NIHE’s revenue generation interacts with two components, namely students and companies/employers, when he stated, “students have volunteered to engage
with individuals and organizations who will pay part of their tuition for a segment of their future earnings”. Driven by the revenue generation methods of NIHEs, namely raising tuition, components of the NIHE system are interacting in a disjointed fashion that may be incongruent with the mission of education. Participant A2301 went on to identify similarities between student receiving funds for tuition in return for future earnings with the current loan programs; however, A2301 was concerned about how this relationship may affect a student’s choice and a NIHE’s curriculum. As an example, A2301 stated,

The idea of selling future income for present tuition just don’t catch me as something that I am totally comfortable with … who is providing the student loan? And I prefer to have legitimate organizations, that have this as either their primary responsibility or one of their significant responsibilities and have a proven record of how they demonstrate that. The investment vehicle should not be motivated by profit and needs to reflect the fact that the current number of unemployed college graduates and the number of underemployed college graduates put a face on this that does not make it as simple as it seems, because you are committing, while you are at school, to an unknown. The unknown being what is your potential earnings and are they going to be systematic earnings, are they going to be sporadic earnings, what if you are unemployed. …What disturbs me is that there seems to be no restraint on the cost of tuition.

As evidenced by participant A2301, the interactions are extensive and branch out to other components quickly. The current disconnect between components of the NIHE system is also causing interactions and perceptions that are counterproductive to NIHEs in general.
An example of this is in a statement by participant BL2344, a business leader, who stated, “I think we have diverted a long way from providing an education to where we now provide degrees.”

In another example of how the components of the NIHE system interact with revenue generation methods of NIHEs, participant A5303, an administrator stated, It has been done in a deliberate fashion by a few schools, and not so deliberately and not so explicitly by many many other schools, to increase the tuition sticker price in order to increase the appearance of value and to push them into a more prestigious category.

Student also identified some of the interactions among components of the NIHE system and the current methods of revenue generation, such as how the rate of tuition negatively affects their families. Participant S3353, a student stated, “Although I mainly deal with components like teachers, staff, and students, my big issue is how my tuition hurts my family”. In addition, almost all of the student participants stated that current revenue generation methods negatively affect their choice of school and curriculum, which in turn affects their career and future earnings potential. The analysis of the phone interviews, historic data, and literature review, identified negative interactions among components of the NIHE system and the current methods of revenue generation. The particular components that were negatively affected were other NIHEs, government, alumni, accreditation bodies, facility, physical facilities, students, community/society, administrators, research, career services, health services, programs, sports, companies/employers, HR department, ethics boards, foundations, lenders, parents and
family, and politicians. From a broader perspective of the interactions between components of the nonprofit university system Dew (2009) concluded that institutions of higher education “must have a systematic approach to assessing their environment, developing strategic plans, taking actions, and assessing their results” (p. 8). Furthermore, Dew (2009) concluded that accrediting organizations expect institutions of higher education to possess a “macro-level approach to assessment, planning, and improvement and to demonstrate how this cycle is actualized in both academic and non-academic parts of the organization” (p. 8).

The possible affects upon, and interaction between, the NIHE system components of a “macro-level approach to assessment, planning, and improvement and to demonstrate how this cycle is actualized in both academic and non-academic parts of the organization” (Dew, 2009, p. 8), was illuminated by the data with particular attention to data received during the phone interviews. As an example, participant A2101, an administrator, was cautiously encouraged about the possibilities of a more direct connection between the components, students and companies/employers. In response to some questions designed for member checking purposes, participant A2101 stated, “I can see how an investment vehicle for higher education [HEIT], similar to a real estate investment trust [REIT], could benefit both the student and the investor”. Upon further reflection participant A2101 added,

Do we selectively only pick individuals for programs [HEIT] like this who have high earnings potential? In other words, do we give it to pre-med students, pre-
law students, engineers and ignore people who want to go into social sciences or philosophy?

Congruent with a discussion regarding revenue generation and the connection of components such as students and companies/employers through an investment vehicle, participant BL 2331 stated, “I guess many students would not end up returning the funds but if the pool of students was large enough, it should work out.” Over 95 percent of students were enthused about the possibility of what participant S1555 called an “angle investor group” or a fund such as a HEIT that is controlled by a single, or group of, NIHEs. Participant FA4203, a faculty member, stated,

Basically instead of Jane Doe paying the tuition [as an example] the 3M Corporation pays it, is a mixed bag. On one hand, I love the idea, higher education being something that people don’t have to think about the price tag of. That people should think of just what is the best match for them. Although getting some funding from private donors is something, I am of two minds about. On the one hand, if private donors can step-up that’s great…. One issue is the nature of higher education is a public good so public sources should be the major source of funding. The other concern is whether the corporate interests would influence the type of education being offered by the school in terms of the types of classes being offered, what sorts of professors are hired, and tenured, etcetera. …

However, if there was a pool of organizations that provided funding, that would not be that different from corporations paying taxes and the taxes going to higher ed.
During the phone interview, and connected to some responses relative to an investment vehicle similar to a HEIT, participant BL2344 stated, “students would be better of being partners with the university rather than in debt to the government”. Moreover, relative to HEIT and other investment vehicles that are designed to pay a student’s tuition, participant A5303, an administrator stated, “Repayment models are very interesting and should be offered as an option to students” and “In a fully connected model students would find the path that best suits them”.

**Results for Research Question 2**

The second research question asked, “What are the interactions among components of the NIHE system, the current methods of revenue generation, and organizational change?” The findings for the second research question were:

- **Finding 4:** Consistent with my results for the first research question, my analysis of the data from all three data sources clearly indicated that significant, multifaceted, and comprehensive interactions among the components of the NIHE system, current methods of revenue generation, and organizational change are present.

- **Finding 5:** These interactions are all-inclusive among each component of the NIHE system, revenue generation, and organizational change.

- **Finding 6:** Many of the issues currently associated with revenue generation in NIHEs are related to a lack of recognition of the significance of the interactions among components of the NIHE system, revenue generation, and organizational change.
These interactions are depicted in Figure 22, below.

As an example, in addition to Table 8 and Table 10 above, data from the literature review that supported this result include the following excerpts: (a) Oliver and Hyun (2011) concluded that widespread collaboration between groups in institutions of higher education is incongruent with the current organizational culture of higher education institutions; (b) Jones and Wellman (2010), who argued that the financial “problems affecting higher education are not short-term but structural. … born of bad habits and an inattention to strategic financing and resource allocation” (p. 9); (c) Nye et al. (2010) confirm that history and indirectly human perception, not only affects change initiatives as Bordia et al. (2011) determined, but the evaluation of change initiatives as well; (d) Bold (2011) stated “that change management is an attitude, rather than a set of tools and techniques and that the successful businesses in many areas of activity are strongly influenced by the ability to exploit moments of transformation, moments of change” (p. 12); (e) Becker (2010) found that prior knowledge and established mental models hinder change efforts, while unlearning was found to mitigate some resistance to organizational change; (f) an additional internal influence on change management was identified by Bordia et al. (2011) who found that a history of poor change management, and the subsequent perceptions of change, “led to lower trust, job satisfaction and openness to change, and higher cynicism and turnover intentions” (p. 1); (g) Grant and Marshak (2011) stated that organizational change is a complex process that includes multiple communicative and language based processes; and (h) a case study by Oliver and Hyun (2011) examined how certain components of four-year institutions of higher education
collaborate during the curriculum change process. Congruent with the findings of Randall and Coakley (2007), Oliver and Hyun (2011) concluded that, “the collaboration of various groups within the institution in the process promoted organizational change” (p. 2).

While data from IRS Form 990 by themselves are tangential to organizational change, connections can be identified. As an example, data from data collection phase one, the historic data, which supported this finding include the data contained in Table 5. Table 5 includes perspectives such as (a) dependent on peer reviews, (b) dependent on historic and market data, (c) follows others, (d) unstable revenue generation, and (e) inconsistent, which are indicators of the established mental models that hinder change efforts described, in the literature review, by Becker (2010).

Data from Phase 2 of the data collection phase, the phone interviews, also supported this finding. As an example, in addition to Table 8 and Table 10, participant A5302, an administrator of a NIHE, states that although the humans that make up most of the NIHE system components are very diverse and dynamic, the organizational culture is not, and consequently incongruent with change. Participant A5302 stated that the current NIHE,

business model is remarkable consistent in the way they are organized. Their business models are different only by degree and emphases, as opposed to, more substantial elements. They all have campuses, by and large, they all pursue certain ideals about what constitutes excellence, they hire the same kind of people and they report in the same way.
Similarly, participant A5303 states, “the prime motivator for action in a NIHE is money over quality of education. They assume quality on the basis of traditional input such as we hire this type of people”. Both of these statements indicate strong interactions among components of the NIHE system, the current methods of revenue generation, and organizational change, in that the current organizational culture does not support change and adaptability which adversely affects both the components of the NIHE system, the current methods of revenue generation. Moreover, the lack of an organizational ability to change has left the needs of system components unfilled. As an example, participant, S3313, a student, in reference to their feelings about the current rate of tuition, stated “outrageous”. Similar, and typical examples of, responses that were in response to a question regarding the current rate of tuition, include, (a) S3032 stated that tuition rates are “way too high”, (b) participant BL2301, a business leader stated “a major concern and loans are too high”, (c) participant BL2342 stated, “unaffordable”, (d) participant BL2310 stated, “too high [and] unobtainable”, (e) participant BL2344 stated, “big problem [and] unaffordable”, (f) participant S5914 stated, “too high [and] very unreasonable”, and (g) participant A5393 stated, “not sustainable”. This poor culture of change has further acted to impede the necessary connectivity among system components. In summary, the actions and perceptions of one component affects to some degree all of the other components, as well as revenue generation, and vise versa. Furthermore, the interactions of both the NIHE system components and revenue generation are dependent upon a culture and ability that enable effective organizational change.
Results for Research Question 3

The third research question asked, “How can an analysis of the interactions identified in the first two questions be used to generate, inductively, a revenue generation theory and how may this theory affect NIHEs?” As identified in the literature review, the proactive nature of a sustainable revenue generation system is based on a constant flow of the “total capabilities and knowledge among all the fractals [components]. This integration of knowledge means that each fractal [component] must be kept constantly abreast of all significant events” (Shoham & Hasgall, 2005, p. 230). Furthermore, from a broader perspective of the interactions among components of the nonprofit university system Dew (2009) concluded that institutions of higher education “must have a systematic approach to assessing their environment, developing strategic plans, taking actions, and assessing their results. … Furthermore, accrediting organizations expect institutions of higher education to possess a macro-level approach to assessment, planning, and improvement and to demonstrate how this cycle is actualized in both academic and non-academic parts of the organization” (p. 8).

The analysis of the data from all three data sources, as well as the results of the first two research questions discussed above in the chapter, have informed the new revenue generation theory which is stated in finding 7.

- Finding 7: A sustainable revenue generation system must continually include, and respond to, the multidirectional interactions of all system components as they change over time, including businesses, and that the result of this
connectivity is both increased revenue and reduced student and government-funded tuition.

The new revenue generation theory that is stated in finding 7 above, is depicted in Figure 22 below. Figure 22 highlights the results of a NIHE revenue generation system that continually includes, and responds to, the multidirectional interactions of all system components as they change over time.

**Figure 22.** New revenue generation theory for NIHEs within the USA, which states: A sustainable revenue generation system must continually include, and respond to, the multidirectional interactions of all system components as they change over time, including businesses, and that the result of this connectivity is both increased revenue and reduced student and government-funded tuition.
The potential effects of the new revenue generation theory on NIHEs depicted in Figure 22 are complex. The large number of interactions between system components and revenue generation could be used to inform a stock and flow map similar to Figure 8 in Chapter 2. However, this stock and flow map would have a minimum of 24 stocks, 48 flows, as well as dozens of converters, and over 100 connectors. A stock and flow map of this complexity and size cannot be effectively depicted in this dissertation. Moreover, the data necessary to determine beginning balances for each stock is not part of this study.

However, congruent with the definitions and descriptions of Forbes (1993) and Figure 8 of Chapter 2, the four main elements of a new stock and flow map of the entire system, which includes the new revenue generation theory, would still include stocks, flows, converters, and connectors. The list of stocks would include each component of the system, including (a) Investment Vehicle Balance; (b) Donors and Foundations; (c) Faculty; (d) Net Tuition Total Balance; (e) Alumni; (f) Tuition Rate; (g) Outstanding Student Debt Balance; (h) concrete financial accumulations including revenue; and (i) those identified in Table 11. Each stock would have at least two flows, one representing an inflow to the stock and one representing an outflow from the stock. Significantly expanding the flows shown in Figure 8 of Chapter 2, flows would represent actions or processes to and from the accumulation in a stock. As an example, these flows would include an inflow to the stock of alumni, as well as an outflow to the stock of alumni. Converters, the elements that hold information or relationships that affect the rate of the flows or other converters, would include such converters as tax credits, increase in cost, foreign students, referrals, decrease in entry barriers, investors, connectivity among
components, increase in quality of education, and student graduation rate. Connectors would indicate that changes in one element would cause changes in another element. As an example, changes in converter connectivity among components would affect the inflow to the revenue stock.

More specifically, the theoretical affects of the new revenue generation theory depicted in Figure 22 include, but are not limited to, the following:

• Finding 8: Increased revenue for NIHEs, which is a result of the sum of the interactions among system components, system converters, and system flows including those from (a) Investment Vehicle Balance; (b) Donors and Foundations; (c) Faculty; (d) Net Tuition Total Balance; (e) increased revenue from alumni; (f) reduced tuition rate; and (g) total connectivity among components;

• Finding 9: Reduced dependency on student funded tuition, which is a result of the sum of the interactions among system components, system converters, and system flows including those from (a) Investment Vehicle Balance; (b) Net Tuition Total Balance; (c) increase in revenue for NIHEs; (d) low or no tuition; and (e) total connectivity among components;

• Finding 10: Reduced dependency on governmental funding, which is a result of the sum of the interactions among system components, system converters, and system flows including those from (a) Investment Vehicle Balance; (b) Net Tuition Total Balance; (c) increase in revenue for NIHEs; and (d) total connectivity among components;
Finding 11: Positive effect on the economy, which is a result of the sum of the interactions among system components, system converters, and system flows including those from (a) a decrease in the amount of outstanding student debt; (b) increase in high paying jobs; (c) increase in access to NIHEs by potential students; (d) an increase in the average wage rate, and (e) total connectivity among components;

Finding 12: Increase in the number of students, which is a result of the sum of the interactions among system components, system converters, and system flows including those from (a) Investment Vehicle Balance; (b) referrals; (c) increase in revenue for NIHEs; (d) increase in the quality of education; and (e) total connectivity among components;

Finding 13: Decrease in the barriers to entering a NIHE for students, which is a result of the sum of the interactions among system components, system converters, and system flows including those from (a) Investment Vehicle Balance; (b) low or no tuition; (c) increase in revenue for NIHEs; (d) increase in the quality of education; and (e) total connectivity among components;

Finding 14: The potential for more effective academic programs, which is a result of the sum of the interactions among system components, system converters, and system flows including those from (a) Investment Vehicle Balance; (b) decrease in administrative resources focused on revenue generation; (c) increase in revenue for NIHEs; (d) increase in the quality of education; and (e) total connectivity among components;
Finding 15: Increased revenue from companies/employers, which is a result of the sum of the interactions among system components, system converters, and system flows including those from (a) Investment Vehicle Balance; (b) increase in research; and (c) total connectivity among components;

Finding 16: Decrease in the amount of student loans (lenders outstanding balance), which is a result of the sum of the interactions among system components, system converters, and system flows including those from (a) Investment Vehicle Balance; (b) low or no tuition; (c) increase in revenue for NIHEs; and (d) total connectivity among components;

Finding 17: Decrease in the financial support from families, which is a result of the sum of the interactions among system components, system converters, and system flows including those from (a) low or no tuition; and (b) total connectivity among components;

Finding 18: Increased opportunities for research, which is a result of the sum of the interactions among system components, system converters, and system flows including those from (a) Investment Vehicle Balance; (b) Net Tuition Total Balance; (c) increase in revenue for NIHEs; (d) low or no tuition; and (d) total connectivity among components;

Finding 19: An increased focus on the mission of education, which is a result of the sum of the interactions among system components, system converters, and system flows including those from (a) Investment Vehicle Balance; (b)
decrease in administrative resources focused on revenue generation; (c) increase in revenue for NIHEs; and (d) total connectivity among components. These findings both, confirm the data from the literature review, and extend knowledge to specifically NIHEs components, revenue generation, and organizational change. Furthermore, the affects of the findings are discussed in more detail in Chapter 5, as well as the potential of expressing the new sustainable revenue generation theory, mathematically.

**Summary**

Chapter 4 provided a presentation of results of data collection and analysis among data from the literature review, historic data, and phone interviews. The objective of this study was to examine the interactions among components of the nonprofit university system, existing revenue generation methods, and sustainability of revenue generation, all in an effort to generate a new sustainable revenue theory for nonprofit universities within the United States. This study’s findings suggest that significant, multifaceted, and comprehensive interactions between the components of the NIHE system and revenue generation exist. A further finding is that analysis of the data from all three data sources clearly indicates that significant, multifaceted, and comprehensive interactions among the components of the NIHE system, current methods of revenue generation, and organizational change are present. Furthermore, the findings of this study generated inductively, a new sustainable revenue theory for nonprofit universities within the United States, which states that a sustainable revenue generation system must continually include, and respond to, the multidirectional interactions of all system components as
they change over time, including businesses, and that this connectivity resulted in both increased revenue and reduced student and government-funded tuition. In Chapter 5, based on my findings and the new sustainable revenue theory for nonprofit universities within the United States, I present recommendations for action. Chapter 5 also identifies areas for further research, discusses implications of this study for positive social change, and the conclusion of the study.
Chapter 5: Summary, Conclusion, and Recommendations

Without a new and sustainable revenue generation system that is congruent with all components of NIHE system, higher education in the United States will struggle and decline as citizens become increasingly less able to compete in a global economy. The use of current revenue generation methods has left NIHEs vulnerable to the current problem of declining investments, tighter credit, fewer charitable contributions, declining public funding, high tuition, and more student financial need (Weisbrod & Asch, 2010, p. 24). New revenue generating systems for nonprofit institutions of higher education must focus on connectivity, coevolution, reinforcing cycles, and self-organization (Luoma, 2006). However, current research into the interactions among the components of the NIHE system as they relate to methods of sustainably generating revenue for NIHEs is very limited. For these reasons, the goal of this grounded theory study was to understand the overall system-based interactions among components of the NIHE system, existing revenue generation methods, organizational change, and sustainability of revenue generation, all in an effort to generate a new sustainable revenue theory for NIHEs within the United States. In Chapter 2, although current research into the interactions between the components of the NIHE system as they relate to methods of sustainably generating revenue for NIHEs is very limited, I reviewed a significant volume of scholarly literature. However, in keeping with Glaser (2010a, 2010b) and the limited amount of current literature, the literature review included literature that was published more than 5 years ago and was used as a source of data.
In Chapter 3, I defined this study’s research design; justified its methodology, including data collection procedures; and discussed threats to data quality. In Chapter 4, I demonstrated how the data analysis resulted in (a) the identification of significant, multifaceted, and comprehensive interactions between the components of the NIHE system and revenue generation; (b) the identification of significant, multifaceted, and comprehensive interactions among the components of the NIHE system, current methods of revenue generation, and organizational change; and (c) the generation of a new sustainable revenue theory for nonprofit universities within the United States, which states that a sustainable revenue generation system must continually include, and respond to, the multidirectional interactions of all system components as they change over time, including businesses, and that this connectivity resulted in both increased revenue and reduced student and government-funded tuition. This new theory is important because it indicates one potential method or system in which NIHEs can effectively and sustainably generate revenue in a fashion that reflects and supports all components of the system. It further suggests that system components such as students, family, employers, and society’s economy can also benefit from the use of this theory by NIHEs.

**Interpretation of the Findings**

**Research Question 1**

In the context of the first exploratory research question (What are the interactions between components of the NIHE system and revenue generation?) and generated through the use of a grounded theory methodology (see Figure 13 in Chapter 4), the results from Chapter 4 are:
• Finding 1: My analysis of the data from all three data sources clearly indicated that significant, multifaceted, and comprehensive interactions between the components of the NIHE system and revenue generation exist.

• Finding 2: The interactions are all-inclusive between each component of the NIHE system and revenue generation.

• Finding 3: Many of the issues currently associated with revenue generation in NIHEs are related to a lack of recognition of the significance of the interactions between components of the NIHE system and revenue generation.

Congruent with the findings of Alstadsæter (2011), who found that the value of higher education to both individuals and society is significant and multifaceted, as higher education increases the skill level of both the individual, as well as society, these interactions are all-inclusive between each component of the NIHE system and revenue generation. As such, a lack of connectivity between system components and revenue generation systems has resulted in a dysfunctional revenue generation system that is not sustainable. Moreover, this dysfunctional revenue generation system has adversely affected components of the NIHE system. During the constant comparative process, I incorporated Glaser’s (1992) advice to seek each participant’s main concern and then to identify how this main concern can be resolved. The data of this study clearly indicate that both a lack of sustainability and adverse affect upon system components are currently occurring in NIHEs and their revenue generation system. As an example, the interactions and lack of a “systematic approach to assessing their environment, developing strategic plans, taking actions, and assessing their results” (Dew, 2009, p. 8),
can have negative effects upon the entire system. A new revenue generation system is needed; this new and sustainable revenue generation system must reflect the important, bidirectional, and dynamic relationship between revenue generation and system components.

These findings are congruent with data from the literature review and extend existing knowledge into NIHEs and revenue generation. As discussed in Chapter 4, numerous pieces of literature support the finding that the interactions between components of the NIHE system and revenue generation are significant, multifaceted, and comprehensive, including the following statements and excerpts from Chapter 2: (a) new revenue generating systems for nonprofit institutions of higher education must focus on connectivity, coevolution, reinforcing cycles, and self-organization (Luoma, 2006); (b) Eastman (2006) suggested that because the components of revenue generation are so closely connected to the balance of the overall university system, a university’s mission changes as the need for revenue generation increases; (c) Eastman also found that a strategy of raising revenue through increasing class size and student population resulted in a bifurcation of teaching and research where teaching received most human resources and research was minimized (p. 56); (d) Barrett (2010) concluded that “networks must have cross functionality and the institution must have in place systems that seek pertinent and relevant information from within and across their sectors” (p. 30); (e) Pathak and Pathak (2010) identified several components of the higher educational system as well as components of a revenue generation model in their paper regarding reconfiguring the education value chain. In their paper, Pathak and Pathak “proposed that the academic
process can be unbundled into discrete components which have well developed measures” (p. 166); (f) Slaughter and Rhoades (2004) found “spheres of interactivity that had no boundaries” (p. 11). This interactivity has resulted in cost and revenue generation for higher education through entrepreneurial activity (Barrett, 2010; Slaughter & Rhoades, 2004); (g) The interconnection of system components and the importance of the corporate sector were further supported by Barrett (2010), who stated, “Kirp [2003] stressed that priorities in higher education were not necessarily determined by the institution but by external constituencies such as students, donors, corporations, and politicians” (p. 27); (h) the identification of a bidirectional interdependency of student needing employer, employer needing student, university needing student, and employer needing university, which clearly highlights the importance of the interactions between components of the nonprofit university system, as well as the importance of communication among stakeholders in institutions of higher education as identified by the research of Smith and Wolverton (2010); (i) McDevitt, Giapponi, and Solomon (2008) suggested that an attempt to get alumni involved in one aspect of the organization such as classroom activities could, with a systemic network approach, also provide an opportunity for scholarship or research initiatives; (j) McCuddy, Pinar, and Gingerich (2008) identified the interconnectivity of two important stakeholders, students and potential employers, when they concluded that “even though tuition-paying students (and/or their parents) consider themselves to be customers of the educational establishment, they are responding—through their selection of academic programs, majors, and minors—to the employment marketplace” (p. 630); (k) Nair, Bennett, and
Mertova (2010) concluded that in order to effect positive change, student feedback must be collected and acted upon with ample support for academic staff (p. 553); and (l) Randall and Coakley (2007) determined that “leadership in today's academia should take into account the needs and demands of various stakeholders … [and] … for the institution to flourish in today's environment … requires innovation and input from all relevant stakeholders” (p. 326).

**Research Question 2**

In the context of the second exploratory research question, which asked, “What are the interactions among components of the NIHE system, the current methods of revenue generation, and organizational change”, and generated through the use of a grounded theory methodology (see Figure 13 in Chapter 4), the results from Chapter 4 for the second research question were:

- **Finding 4:** Consistent with my results for the first research question, my analysis of the data from all three data sources clearly indicated that significant, multifaceted, and comprehensive interactions among the components of the NIHE system, current methods of revenue generation, and organizational change are present.

- **Finding 5:** These interactions are all-inclusive among each component of the NIHE system, revenue generation, and organizational change.

- **Finding 6:** Many of the issues currently associated with revenue generation in NIHEs are related to a lack of recognition of the significance of the
interactions among components of the NIHE system, revenue generation, and organizational change.

Moreover, the current industry culture and organizational culture are highly resistant to organizational change. As an example, Barrett (2010) concludes, “networks must have cross functionality and the institution must have in place systems that seek pertinent and relevant information from within and across their sectors. Innovation will be a cornerstone in these processes; resistance to change must be eliminated” (p. 30). The inability to adapt to the natural state of constant change has left NIHEs with a dysfunctional culture of change, an inability to change effectively, and an antiquated revenue generation system. Furthermore, the data of this study clearly indicate that the lack of an effective culture of change has negatively affected NIHEs as well as their components, including students, society, and faculty. A new and sustainable revenue generation system is affected by a NIHEs culture of change. Therefore, a new and sustainable revenue generation theory does include a clear connection between organizational change and revenue generation, as well as the negative and positive impacts of organizational change. Furthermore, this new and sustainable revenue generation system must reflect the important, bidirectional, and dynamic relationship among organizational change, revenue generation and system components.

These findings both, confirm the data from the literature review, and extend knowledge to specifically NIHEs components, revenue generation, and organizational change. As an example, and as discussed in Chapter 4, numerous pieces of literature support the finding that the interactions between components of the NIHE system and
revenue generation are significant, multifaceted, and comprehensive including the following statements and excerpts from Chapter 2: (a) Oliver and Hyun (2011) concluded that widespread collaboration between groups in institutions of higher education is incongruent with the current organizational culture of higher education institutions; (b) Nye et al. (2010) confirm that history and indirectly human perception, not only affects change initiatives as Bordia et al. (2011) determined, but the evaluation of change initiatives as well; (c) Bold (2011) stated “that change management is an attitude, rather than a set of tools and techniques and that the successful businesses in many areas of activity are strongly influenced by the ability to exploit moments of transformation, moments of change” (p. 12); (d) Becker (2010) found that prior knowledge and established mental models hinder change efforts, while unlearning was found to mitigate some resistance to organizational change; (e) an additional internal influence on change management was identified by Bordia et al. (2011) who found that a history of poor change management, and the subsequent perceptions of change, “… led to lower trust, job satisfaction and openness to change, and higher cynicism and turnover intentions” (p. 1); and (f) a case study by Oliver and Hyun (2011) examined how certain components of four-year institutions of higher education collaborate during the curriculum change process. Additional support for these findings, relative to the literature review, is found in Table 8 and Table 10 of Chapter 4.

**Research Question 3**

In the context of the third exploratory research question, which asked, “How can an analysis of the interactions identified in the first two questions be used to generate,
inductively, a revenue generation theory and how may this theory affect NIHEs”, and generated through the use of a grounded theory methodology (see Figure 13 in Chapter 4), resulted in a new revenue generation theory which is stated in finding 7.

• Finding 7: A sustainable revenue generation system must continually include, and respond to, the multidirectional interactions of all system components as they change over time, including businesses, and that the result of this connectivity is both increased revenue and reduced student and government-funded tuition.

The results from Chapter 4 reflect the fact that the proactive nature of a sustainable revenue generation system is based on a constant flow of the “total capabilities and knowledge among all the fractals [components]. This integration of knowledge means that each fractal [component] must be kept constantly abreast of all significant events” (Shoham & Hasgall, 2005, p. 230). The new revenue sustainable generation theory depicted in Figure 22 of Chapter 4, reflects a constant bidirectional and dynamic flow of the total capabilities and knowledge among all of the system components, from both a micro and macro perspective. As indicated in Figure 22 of Chapter 4, the theoretical affect of constant bidirectional and dynamic flow of the total capabilities and knowledge among all of the system components is positive among system components including, revenue generation, faculty, students, employers, and society. Furthermore, the theoretical affect of constant bidirectional and dynamic flow of the total capabilities and knowledge among all of the system components acts a positive agent of change as
supported by Oliver and Hyun (2011) who concluded that, “the collaboration of various groups within the institution in the process promoted organizational change” (p. 2).

More specifically, the theoretical effect of the new revenue generation theory depicted in Figure 22 of Chapter 4 include, but are not limited to, the following findings:

- Finding 8: Increased revenue for NIHEs, which is a result of the sum of the interactions among system components, system converters, and system flows including those from (a) Investment Vehicle Balance; (b) Donors and Foundations; (c) Faculty; (d) Net Tuition Total Balance; (e) increased revenue from alumni; (f) reduced tuition rate; and (g) total connectivity among components;

- Finding 9: Reduced dependency on student funded tuition, which is a result of the sum of the interactions among system components, system converters, and system flows including those from (a) Investment Vehicle Balance; (b) Net Tuition Total Balance; (c) increase in revenue for NIHEs; (d) low or no tuition; and (d) total connectivity among components;

- Finding 10: Reduced dependency on governmental funding, which is a result of the sum of the interactions among system components, system converters, and system flows including those from (a) Investment Vehicle Balance; (b) Net Tuition Total Balance; (c) increase in revenue for NIHEs; and (d) total connectivity among components;

- Finding 11: Positive effect on the economy, which is a result of the sum of the interactions among system components, system converters, and system flows
including those from (a) a decrease in the amount of outstanding student debt; (b) increase in high paying jobs; (c) increase in access to NIHEs by potential students; (d) an increase in the average wage rate, and (e) total connectivity among components;

• Finding 12: Increase in the number of students, which is a result of the sum of the interactions among system components, system converters, and system flows including those from (a) Investment Vehicle Balance; (b) referrals; (c) increase in revenue for NIHEs; (d) increase in the quality of education; and (e) total connectivity among components;

• Finding 13: Decrease in the barriers to entering a NIHE for students, which is a result of the sum of the interactions among system components, system converters, and system flows including those from (a) Investment Vehicle Balance; (b) low or no tuition; (c) increase in revenue for NIHEs; (d) increase in the quality of education; and (e) total connectivity among components;

• Finding 14: The potential for more effective academic programs, which is a result of the sum of the interactions among system components, system converters, and system flows including those from (a) Investment Vehicle Balance; (b) decrease in administrative resources focused on revenue generation; (c) increase in revenue for NIHEs; (d) increase in the quality of education; and (e) total connectivity among components;

• Finding 15: Increased revenue from companies/employers, which is a result of the sum of the interactions among system components, system converters, and
system flows including those from (a) Investment Vehicle Balance; (b) increase in research; and (c) total connectivity among components;

- Finding 16: Decrease in the amount of student loans (lenders outstanding balance), which is a result of the sum of the interactions among system components, system converters, and system flows including those from (a) Investment Vehicle Balance; (b) low or no tuition; (c) increase in revenue for NIHEs; and (d) total connectivity among components;

- Finding 17: Decrease in the financial support from families, which is a result of the sum of the interactions among system components, system converters, and system flows including those from (a) low or no tuition; and (b) total connectivity among components;

- Finding 18: Increased opportunities for research, which is a result of the sum of the interactions among system components, system converters, and system flows including those from (a) Investment Vehicle Balance; (b) Net Tuition Total Balance; (c) increase in revenue for NIHEs; (d) low or no tuition; and (d) total connectivity among components;

- Finding 19: An increased focus on the mission of education, which is a result of the sum of the interactions among system components, system converters, and system flows including those from (a) Investment Vehicle Balance; (b) decrease in administrative resources focused on revenue generation; (c) increase in revenue for NIHEs; and (d) total connectivity among components.
These findings both, confirm the data from the literature review, and extend knowledge to specifically NIHEs components, revenue generation, and organizational change. A further example of an extension of knowledge is the theoretical effect of the Investment Vehicle Balance depicted in Figure 22 of Chapter 4 and included above as a part of the theoretical affects of the new revenue generation theory. The Investment Vehicle Balance was informed through the data collection and analysis process described in Chapter 4. More particularly, Chapter 4 includes quotes that informed the investment vehicle including, (a) participant’s A2101 statement, “I can see how an investment vehicle for higher education [HEIT], similar to a real estate investment trust [REIT], could benefit both the student and the investor”; (b) participant’s BL 2331 statement, “I guess many students would not end up returning the funds but if the pool of students was large enough, it should work out”; (c) the findings that over 95 percent of students were enthused about the possibility of what participant S1555 called an “angle investor group” or a fund such as a HEIT that is controlled by a single, or group of, NIHEs;(d) participant’s A5303, statement, “Repayment models are very interesting and should be offered as an option to students” and “In a fully connected model students would find the path that best suits them”;; and (e) Participant’s FA4203, statement, Basically instead of Jane Doe paying the tuition [as an example] the 3M Corporation pays it, is a mixed bag. On one hand, I love the idea, higher education being something that people don’t have to think about the price tag of. That people should think of just what is the best match for them. Although getting some funding from private donors is something, I am of two minds about. On the
one hand, if private donors can step-up that’s great…. One issue is the nature of higher education is a public good so public sources should be the major source of funding. The other concern is whether the corporate interests would influence the type of education being offered by the school in terms of the types of classes being offered, what sorts of professors are hired, and tenured, etcetera. … However, if there was a pool of organizations that provided funding, that would not be that different from corporations paying taxes and the taxes going to higher ed. (Participant FA4203)

Grounded Theory

As described earlier in this chapter, a grounded theory for sustainably generating revenue for NIHEs in the United States has been emerged from the data (see Chapter 4, Figure 22). The new sustainable revenue generation theory in Figure 22 of Chapter 4 reflects a constant bidirectional and dynamic flow of the total capabilities and knowledge among all of the system components, from both a micro and macro perspective. As indicated in Figure 22 of Chapter 4, the theoretical affect of constant bidirectional and dynamic flow of the total capabilities and knowledge among all of the system components is positive, among system components including, revenue generation, faculty, students, employers, and society. Furthermore, the theoretical affect of constant bidirectional and dynamic flow of the total capabilities and knowledge among all of the system components acts as a positive agent of change as supported by Oliver and Hyun (2011) who concluded that, “the collaboration of various groups within the institution in the process promoted organizational change” (p. 2).
Important aspects of the findings of a grounded theory study are fit, workability, relevance, and modifiability. Glaser and Strauss (1967) stated that a grounded theory is not true or false, but has more or less fit, workability, relevance, and modifiability. Fit representing how closely concepts represent the data and realities of where the theory is to be applied (Glaser & Strauss, 1967). For this study, a close fit is present between the results of this study and both the data and functioning NIHEs. The relevance, or as Glaser and Strauss (1967) defined as the real concern of the participants, is also evident in this study, as the impact of current revenue generation methods and a concern regarding future revenue generation methods was found to a real concern of the participants. Similarly, workability was achieved during the data collection process when the participants identified how they are trying to solve problems associated with revenue generation in NIHEs (Glaser & Strauss, 1967). Finally, modifiability, or indications that a theory can incorporate new data that causes variations in categories, is present as well. This is most evident by the fundamental nature of change that the theory itself incorporates.

Limitations of the Study

As stated in Chapter 1, this study was limited in several ways. Because grounded theory is used to develop or generate a theory inductively from data where little is already known, generally from small samples, care should be taken when generalizing the findings and additional empirical research should be performed (Creswell, 2007; Strauss & Corbin, 1998). Another limitation is that the results of this study represent the perceptions and experiences of the participants. Researcher bias is also a limitation of this
study. Another limitation of this study is caused by the use of a small purposeful sample of participants that has been used for the phone interviews, instead of a random sample. In an effort to mitigate these limitations and increase trustworthiness, a number of strategies have been incorporated into this study to insure dependability, credibility, transferability, and confirmability. As described in Chapter 3, in the Threats to Data Quality section, dependability was enhanced through the use of (a) dependable data collection methods, (b) the data triangulation of multiple sources of data, namely the literature review, historic data, and phone interview, and (c) audit trails, where the researcher keeps a research journal which includes the process of data collection, data analysis, coding. Transferability, “the degree to which the results of qualitative research can be generalized or transferred to other contexts or settings” (Trochim & Donnelly, 2008, p. 149), was enhanced by adhering to the data collection and analysis procedures, as well as the inclusion of thick description. NVivo and Excel were used in an effort to collect, organize, and analyze the data. In keeping with Bennett’s (2010) methods, credibility was enhanced by (a) data triangulation of multiple sources of data, namely the literature review, phone interview, and historic data, and (b) member checking (p. 53). Member checking was used as a technique to validate the interpretations and conclusions of the qualitative data by asking participant to verify the researcher’s interpretations of the data. As a strategy for ensuring data quality, member checks “is perhaps the most important strategy for determining the credibility of the researcher’s interpretation of the participants’ perceptions” (Teddlie & Tashakkori, 2009, p. 213). In order to establish confirmability, a researcher must “disclose their role (i.e., reflexivity) and [the role’s]
impact on the interpretations they make in a study” (Creswell & Plano Clark, 2010, p. 267). However, with this knowledge, the negative effects of the bias can be mitigated, while the positive aspects of the researcher being an important part of the qualitative research process can be enhanced.

**Recommendations for Actions**

The recommended actions from this study were (a) NIHEs must include all components of the NIHE system into their revenue generation system, (b) NIHEs must modify their organizational culture to become more adaptable to change, (c) NIHEs should consider the implementation of the new sustainable revenue generation theory generated by this study, and (d) further research.

**Inclusion of all System Components**

As repeatedly identified in this study, NIHEs must include all components of the NIHE system into their revenue generation system. As an example, Nair, Bennett and Mertova (2010) concluded that in order to affect positive change, student feedback must be collected and acted upon with ample support for academic staff (p. 553). Congruently, while identifying the registrar and suppliers as additional key stakeholders, Sohail, Daud, and Rajadurai (2006) also suggested that cross functional teams are an important aspect of an effective higher educational system. This conclusion also indicates the clear dependency and interconnectivity between certain stakeholders that both Randall and Coakley (2007) and Oliver and Hyun (2011) identified. From a broader perspective of the interactions among components of the nonprofit university system Dew (2009) concluded that institutions of higher education “… must have a systematic approach to
assessing their environment, developing strategic plans, taking actions, and assessing their results” (p. 8).

I propose that NIHEs individually first broadly identify all system components. Once the system components have been identified at a particular moment in time, an individual NIHE should map the relationships among components in a similar fashion that I did in Figure 8 of Chapter 2. Following the mapping of relationships, each relationship needs to be represented by a formula. The creation of the mathematical relationship among components is further discussed in the section labeled, recommendations for further study, below.

Organizational Change

The second actionable area for improvement is achieving the organizational change necessary to induce a functional and effective culture of change. Given the substantial empirical literature regarding organizational change, including that identified in Chapter 2, NIHEs need to initiate a functional cultural of change. Bold (2011) stated “that change management is an attitude, rather than a set of tools and techniques and that the successful businesses in many areas of activity are strongly influenced by the ability to exploit moments of transformation, moments of change” (p. 12). The cultural change that is required in NIHEs is that stated by Grant and Marshak (2011), who stated that organizational change is a complex process that includes multiple communicative and language based processes. NIHEs must include the processes that affect human perception, including the constructive, multilevel, conversational, political, reflexive, and recursive nature of organizational change discourses (Grant and Marshak, 2011, p. 25).
The inclusion of organizational change into a NIHE’s sustainable revenue generation system is important and must be achieved.

**Implementation of the New Sustainable Revenue Generation Theory**

The third actionable area for improvement is the acceptance of a new and sustainable revenue generation theory for NIHEs in the US, which states that a sustainable revenue generation system must continually include, and respond to, the multidirectional interactions of all system components as they change over time, including businesses, and that this connectivity resulted in both increased revenue and reduced student and government-funded tuition. Although further research is necessary in order for NIHEs to have complete acceptance of a new and sustainable revenue generation theory, NIHEs need to begin the process of exploring and examining a new and sustainable revenue generation theory as stated and depicted Figure 22 of Chapter 4. This process not only supports a culture of change but also strengthens the new and sustainable revenue generation theory.

**Recommendations for Further Study**

This study provides an initial theory, regarding a new sustainable revenue generation theory for NIHEs in the US. In order to effectively and completely implement the previous three recommendations above, further research is recommended for both understanding the interactions among components of the NIHE system, revenue generation and organizational change, as well as the new sustainable revenue generation theory depicted in Figure 22 of Chapter 4. As an example, one of the next reasonable steps is, with a mixed methods approach, to study individual NIHEs in an effort to
expand the mapping of relationships, into a model, specific for that NIHE, with mathematical equations for each of the interactions between components, including those that have been identified by this study. The inclusion of mathematical equations does not minimize the importance of a written expression of the new sustainable revenue generation theory, or how helpful a graphical depiction can be, but represents a desire to express the theory in the purist form of expression, mathematical. Furthermore, case studies would serve to confirm and expand an understanding of the relationships between components of the NIHE system. Additionally, research into the design of an investment vehicle for higher education is necessary. Lastly, a study regarding how NIHEs can change their organizational culture, to be more congruent with constant change, would be very valuable.

**Social Change Implications**

The theory generated by this study offer many new possibilities for positive social change. The value of higher education to both individuals and society is significant and multifaceted, as higher education increases the skill level of both the individual, as well as society (Alstadsæter, 2011). Furthermore, access and affordability to higher education in the United States has been negatively affected by the continual use of decades-old linear and static revenue generation models in institutions of higher education (Weisbrod & Asch, 2010). Using grounded theory methodology, a theory was generated from the data. Generative theory offers new possibilities for action while challenging conventional understanding (Gergen, 2009). This theory states that a sustainable revenue generation system must continually include, and respond to, the multidirectional interactions of all
system components as they change over time, including businesses, and that the result of this connectivity is both increased revenue and reduced student and government-funded tuition.

The findings of this study could significantly decrease tuition rates while increasing revenue for NIHEs, thereby increasing both affordability and accessibility, which in turn would produce positive social change. Moreover, by reducing the significance of tuition rate in the decision making process of students regarding which school to attend, will allow students to measure NIHEs more on their reputation, value, research, quality of education, and services they provide. Additionally, the results of this study may allow NIHEs to refocus many resources back to the mission of education rather than revenue generation. Furthermore, as theoretically indicated in Figure 22 of Chapter 4, a NIHE that uses the new sustainable revenue generation theory may provide more revenue to the general economy, as well as a culture that is inclusive of all its components needs.

**Researcher Reflections**

Potentially a qualitative study is more susceptible to researcher bias than a quantitative or mixed approach study. However, although researcher bias in qualitative research is unavoidable, researcher bias is manageable. I was cognizant of researcher bias throughout the data collection and evaluation. As an example, the choice of a research topic shows a personal bias toward a particular subject and a particular perceived gap in knowledge. Furthermore, a researcher’s resources and professional interests also shape focus and design of the researcher’s study. As an educator, I am passionate about
enhancing education. Relying on the data, data collection and analysis methods for the study was, in itself, a significant barrier against the intrusion of researcher bias.

**Concluding Statement**

The findings of this study could significantly decrease tuition rates while increasing revenue for NIHEs, thereby increasing both affordability and accessibility. The value of higher education to both individuals and society is significant and multifaceted, as higher education increases the skill levels of both the individual, and society as a whole (Alstadsæter, 2011). Moreover, Vogel and Keen (2010) found that:

> The formation of human capital is one of the underlying foundations of modern economic growth theory (Mankiw, Romer, & Weil, 1990, 1992; Romer, 1989). Analysts such as Florida (2002) go a step further and suggest that a highly educated populace is a necessary condition for the development of a “creative economy,” which he defines as one dominated by knowledge, information, and innovation. (p. 384).

However, decades-old liner revenue generation models have left institutions of higher education vulnerable to the current “perfect storm of falling investments, credit tightening, declining private contributions from individuals and corporations, declining state funding, and increased student financial need leading to decreased tuition revenue” (Weisbrod & Asch, 2010, p. 24).

The goal of this study was to understand the overall system based interactions among components of the NIHE system, existing revenue generation methods, organizational change and sustainability of revenue generation. All in an effort to
generate a new sustainable revenue theory for NIHEs within the United States, which may result in an increase in access and affordability to higher education in the United States, as well as an increase in the quality of education. I determined that a qualitative study, with a grounded theory approach that utilized a multiphase design incorporating theoretical sampling was the best method for collecting and analyzing data. Three sources of data were analyzed during this study, literature review, historic data, and phone interviews. Results from this study indicated significant, multifaceted, and comprehensive interactions among the components of the NIHE system, current methods of revenue generation, and organizational change. Furthermore, a new revenue generation theory has been informed. This new revenue generation theory for NIHE’s in the United States, states that a sustainable revenue generation system must continually include, and respond to, the multidirectional interactions of all system components as they change over time, including businesses, and that this connectivity will result in both increased revenue and reduced student and government-funded tuition. Lastly, the significant potential for positive social change has been clearly identified.
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Author: Prashant Bordia, Simon Lloyd D. Restubog, Nerina L. Jimmerson, Bernd E. Umbre

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Appendix B: Interview Guide

Phone Interview Protocol

• Researcher calls the participant at the predetermined time and phone number.

• Researcher reviews the voluntary nature, schedule, and structure for the phone interview.

• Researcher confirms that the participant understands the phone interview is recorded.

• Researcher turns recording device on.

• Researcher provides background information regarding the study including the purpose.

• Researcher asks questions.

• Researcher reiterates appreciation for the participant’s time and continued participation in reviewing transcripts and tentative findings.

• Researcher explains that the participant may request a copy of the study when complete.
Appendix C: Preliminary Exploratory Phone Interview Questions

(Please note that in response to the answers to these questions additional questions were asked)

------------------------------------------------------------------------------------------------------------------------

For Students

1. What, if anything, do you know about revenue generation in NIHEs?
2. Tell me about your thoughts and feelings about the current rate of tuition.
3. Tell me about your views on revenue generation in NIHEs.
4. What do you believe are the components (parts) of the NIHE system?
5. How do you interact with the other components?
6. Tell me about how revenue generation influences how you interact with other components (parts) of the NIHE system.
7. How did the revenue generation methods of ______________ influence your decision to attend this NIHE?
8. Would your decision to attend ______________ been different if other similar NIHEs had tuition of less than $2,000 per semester?
9. How, if at all, did the current methods of revenue generation in NIHEs limit your choice of NIHE or curriculum?
10. Please tell me why you chose to attend college.
11. Is there anything else you think I should know about revenue generation in NIHEs and the interactions between components of NIHEs?
12. Do you have any questions for me?

For Faculty

1. What, if anything, do you know about revenue generation in NIHEs?
2. Tell me about your thoughts and feelings about the current rate of tuition.
3. How, if at all, have your thoughts and feeling about revenue generation changed since you have been working at a NIHE?
4. When do you believe a student ceases to be a component of your NIHE’s system?
5. What do you believe are the components (parts) of the NIHE system?

6. How do you interact with the other components?

7. Tell me about how revenue generation influences how you interact with other components (parts) of the NIHE system.

8. What are your institution’s current methods of revenue generation? (Please describe each)

9. What are the strengths, weaknesses, opportunities, and threats to the current methods of revenue generation for your NIHEs?

10. How do the current methods of revenue generation influence your work performance and the performance of your students?

11. How adaptable to change is your institution?

12. Is there anything else you think I should know about revenue generation in NIHEs and the interactions between components of NIHEs?

13. Do you have any questions for me?

For Administration Personnel

1. What, if anything, do you know about revenue generation in NIHEs?

2. Tell me about your thoughts and feelings about the current rate of tuition.

3. How, if at all, have your thoughts and feeling about revenue generation changed since you have been working at a NIHE?

4. When do you believe a student ceases to be a component of your NIHE’s system?

5. What do you believe are the components (parts) of the NIHE system?

6. How do you interact with the other components?

7. Tell me about how revenue generation influences how you interact with other components (parts) of the NIHE system.

8. What are your institution’s current methods of revenue generation? (Please describe each)

9. What do you think are the most important ways to generate revenue for NIHEs.
10. What are the strengths, weaknesses, opportunities, and threats to the current methods of revenue generation for your NIHEs?

11. How do the current methods of revenue generation influence your work performance?

12. How adaptable to change is your institution?

13. Is there anything else you think I should know about revenue generation in NIHEs and the interactions between components of NIHEs?

14. Do you have any questions for me?

**For Business Leaders**

1. What, if anything, do you know about revenue generation in NIHEs?

2. Tell me about your thoughts and feelings about the current rate of tuition.

3. What do you believe are the components (parts) of the NIHE system?

4. How do you or your organization interact with components of the NIHE system?

5. What do you think are the most important ways to generate revenue for NIHEs.

6. How important are NIHE’s to your organization or industry? Please explain.

7. Does your organization invest in the education of current or future employees, if so how and why? If not would you consider it?

8. Roughly, how many employees does your organization have?

9. Is there anything else you think I should know about revenue generation in NIHEs and the interactions between components of NIHEs?

10. Do you have any questions for me?
Appendix D: Consent Form

CONSENT FORM

You are invited to take part in a research study regarding the interactions between components of the Nonprofit Institution of Higher Education (NIHE) system, existing revenue generation methods, organizational change, and sustainability of revenue generation in an effort to generate a sustainable revenue theory for NIHEs within the United States that is responsive to component interactions. The researcher is inviting students, faculty, and administrative personnel of certain NIHEs, as well as, business leaders of certain organizations to be in the study. This form is part of a process called "informed consent" to allow you to understand this study before deciding whether to take part.

This study is being conducted by a researcher named Graig Arcuri, who is a doctoral student at Walden University.

Background Information:
The purpose of this study is to examine the interactions between components of the nonprofit university system, existing revenue generation methods, and sustainability of revenue generation, all in an effort to generate a new sustainable revenue theory for nonprofit universities within the United States.

Procedures:
If you agree to be in this study, you will be asked to:

- Participate in an audio recorded phone interview between you and the researcher that will take approximately 45 minutes.
- Participate in an audio recorded follow-up phone interview (if necessary) between you and the researcher that will take approximately 45 minutes.
- Participate in an audio recorded follow-up phone interview between you and the researcher that will take approximately 45 minutes for the purpose of verifying the researcher’s interpretations of the data.

Here are some sample questions:

1. What, if anything, do you know about revenue generation in NIHEs?
2. Tell me about your thoughts and feelings about the current rate of tuition.
3. Tell me about your views on revenue generation in NIHEs.
4. What do you believe are the components (parts) of the NIHE system?

Voluntary Nature of the Study:
This study is voluntary. Everyone will respect your decision of whether or not you choose to be in the study. No one at [name of appropriate community partner will be inserted here] will treat you differently if you decide not to be in the study. If you decide to join the study now, you can still change your mind during or after the study. You may stop at any time without penalty.

Risks and Benefits of Being in the Study:
Being in this type of study involves some risk of the minor discomforts that can be encountered in daily life, such as fatigue, stress, or becoming upset. Being in this study would not pose risk to your safety or wellbeing.

This study may benefit society by (a) enabling NIHEs to find new sources of revenue, (b) increase the affordability and accessibility of higher education for many students, and (c) enabling NIHEs to have an organizational focus on their core mission of education, rather than revenue generation.

Payment:
There is no payment for participation in this study.

Privacy:
Any information you provide will be kept confidential. The researcher will not use your personal information for any purposes outside of this research project. Also, the researcher will not include your name or anything else that could identify you in the study reports. Data will be kept secure by (a) password protecting all electronic media, (b) keeping all data that is on paper in a locked filing cabinet that only the researcher has access to, and (c) storing all audio files in a digital format on a device that is password protected. Data will be kept for a period of at least 5 years, as required by the university.

Contacts and Questions:
You may ask any questions you have now. Or if you have questions later, you may contact the researcher via phone at (516) 365-0077 or email at graig.arcuri@waldenu.edu. If you want to talk privately about your rights as a participant, you can call Dr. Leilani Endicott. She is the Walden University representative who can discuss this with you. Her phone number is 1-800-925-3368, extension 3121210. Walden University’s approval number for this study is 07-02-13-0084846 and it expires on July 1, 2014.

Please print or save this consent form for your records.

Statement of Consent:
I have read the above information and feel I understand the study well enough to make a decision about my involvement. By replying to this email with the words, "I consent", I understand that I am agreeing to the terms described above.
## Appendix E: Blank IRS Form 990

**Form 990**

**Return of Organization Exempt From Income Tax**

Under section 501(a), 527, or 4947(a)(1) of the Internal Revenue Code (except private foundations)

- Do not enter Social Security numbers on this form as it may be made public.

**2013**

Open to Public Inspection

### Part I: Summary

1. Briefly describe the organization's mission or most significant activities:

   ____________________________________________________________

2. Check this box [x] if the organization discontinued its operations or disposed of more than 25% of its net assets.

3. Number of voting members of the governing body (Part VI, line 1a) ____________________________________________

4. Number of independent voting members of the governing body (Part VI, line 1b) ________________________________

5. Total number of individuals employed in calendar year 2013 (Part V, line 2a) __________________________________

6. Total number of volunteers (estimate if necessary) __________________________________________________________

7a. Total unrelated business revenue from Form 990-T, column (C), line 12 ______________________________________

7b. Net unrelated business taxable income from Form 990-T, line 34 ____________________________________________

8. Contributions and grants (Part VIII, line 1h) ______________________________________________________________

9. Program service revenue (Part VIII, line 2g) ______________________________________________________________

10. Investment income (Part VIII, column (A), lines 3, 4, and 7d) _______________________________________________

11. Other revenue (Part VIII, column (A), lines 5, 6d, 8c, 9c, 10c, and 11e) _________________________________

12. Total revenue—add lines 8 through 11 (must equal Part VIII, column (A), line 12) ____________________________

13. Grants and similar amounts paid (Part IX, column (A), lines 1–3) __________________________________________

14. Benefits paid to or for members (Part IX, column (A), line 4) _____________________________________________

15. Salaries, other compensation, employee benefits (Part IX, column (A), lines 5–13) _____________________________

16a. Professional fundraising fees (Part IX, column (A), line 11a) ______________________________________________

b. Total fundraising expenses (Part IX, column (D), line 28) __________________________

17. Other expenses (Part IX, column (A), lines 1a–14, 11h–11n, 11t–11e) _________________________________

18. Total expenses. Add lines 13–17 (must equal Part IX, column (A), line 28) ________________________________

19. Revenue less expenses. Subtract line 18 from line 12 _____________________________________________________

20. Total assets (Part X, line 16) __________________________________________________________

21. Total liabilities (Part X, line 26) __________________________________________________________

22. Net assets or fund balances. Subtract line 21 from line 20 ________________________________________________

### Part II: Signature Block

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

**Sign Here**

<table>
<thead>
<tr>
<th>Signature of officer</th>
<th>Date</th>
</tr>
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</table>

**Paid Preparer Use Only**

<table>
<thead>
<tr>
<th>Paid Preparer’s name</th>
<th>Preparer’s signature</th>
<th>Date</th>
<th>Check [ ] if self-employed</th>
<th>PTIN</th>
</tr>
</thead>
</table>

May the IRS discuss this return with the preparer shown above? [ ] Yes [ ] No

For Paperwork Reduction Act Notice, see the separate instructions.
Part III  Statement of Program Service Accomplishments

Check if Schedule O contains a response or note to any line in this Part III: □ Yes □ No

1 Briefly describe the organization’s mission:

________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________________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<table>
<thead>
<tr>
<th>Part IV</th>
<th>Checklist of Required Schedules</th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Is the organization described in section 501(c)(3) or 4947(a)(1) (other than a private foundation)? If “Yes,” complete Schedule A.</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Is the organization required to complete Schedule B, Schedule of Contributors (see instructions)?</td>
<td>2</td>
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<tr>
<td>3</td>
<td>Did the organization engage in direct or indirect political campaign activities on behalf of or in opposition to candidates for public office? If “Yes,” complete Schedule C, Part I.</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Did the organization engage in lobbying activities, or have a section 501(h) election in effect during the tax year? If “Yes,” complete Schedule C, Part II.</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>Is the organization a section 501(c)(4), 501(c)(5), or 501(c)(6) organization that receives membership dues, assessments, or similar amounts as defined in Revenue Procedure 96-19? If “Yes,” complete Schedule C, Part III.</td>
<td>5</td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>Did the organization maintain any donor-advised funds or any similar funds or accounts for which donors have the right to provide advice on the distribution or investment of amounts in such funds or accounts? If “Yes,” complete Schedule D, Part I.</td>
<td>6</td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>Did the organization receive or hold a conservation easement, including easements to preserve open space, the environment, historic land areas, or historic structures? If “Yes,” complete Schedule D, Part II.</td>
<td>7</td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>Did the organization maintain collections of works of art, historical treasures, or other similar assets? If “Yes,” complete Schedule D, Part III.</td>
<td>8</td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>Did the organization report an amount in Part X, line 21, for escrow or custodial account liability; serve as a custodian for amounts not listed in Part X; or provide credit counseling, debt management, credit repair, or debt negotiation services? If “Yes,” complete Schedule D, Part IV.</td>
<td>9</td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>Did the organization, directly or through a related organization, hold assets in temporarily restricted endowments, permanent endowments, or quasi-endowments? If “Yes,” complete Schedule D, Part V.</td>
<td>10</td>
<td></td>
</tr>
<tr>
<td>a</td>
<td>Did the organization report an amount for land, buildings, and equipment in Part X, line 107? If “Yes,” complete Schedule D, Part VI.</td>
<td>11a</td>
<td></td>
</tr>
<tr>
<td>b</td>
<td>Did the organization report an amount for investments—other securities in Part X, line 12 that is 5% or more of its total assets reported in Part X, line 167? If “Yes,” complete Schedule D, Part VII.</td>
<td>11b</td>
<td></td>
</tr>
<tr>
<td>c</td>
<td>Did the organization report an amount for investments—program related in Part X, line 13 that is 5% or more of its total assets reported in Part X, line 167? If “Yes,” complete Schedule D, Part VIII.</td>
<td>11c</td>
<td></td>
</tr>
<tr>
<td>d</td>
<td>Did the organization report an amount for other assets in Part X, line 15 that is 5% or more of its total assets reported in Part X, line 167? If “Yes,” complete Schedule D, Part IX.</td>
<td>11d</td>
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<tr>
<td>e</td>
<td>Did the organization report an amount for other liabilities in Part X, line 257? If “Yes,” complete Schedule D, Part X.</td>
<td>11e</td>
<td></td>
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<tr>
<td>f</td>
<td>Did the organization’s separate or consolidated financial statements for the tax year include a footnote that addresses the organization’s liability for uncertain tax positions under FIN 48 (ASC 740)? If “Yes,” complete Schedule D, Part XI.</td>
<td>11f</td>
<td></td>
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<tr>
<td>12a</td>
<td>Did the organization obtain separate, independent audited financial statements for the tax year? If “Yes,” complete Schedule D, Parts XI and XII.</td>
<td>12a</td>
<td></td>
</tr>
<tr>
<td>b</td>
<td>Was the organization included in consolidated, independent audited financial statements for the tax year? If “Yes,” and if the organization answered “No” to line 12a, then completing Schedule D, Parts XI and XII is optional.</td>
<td>12b</td>
<td></td>
</tr>
<tr>
<td>13</td>
<td>Is the organization a school described in section 170(b)(1)(A)(ii)? If “Yes,” complete Schedule E.</td>
<td>13</td>
<td></td>
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<tr>
<td>14a</td>
<td>Did the organization maintain an office, employees, or agents outside of the United States?</td>
<td>14a</td>
<td></td>
</tr>
<tr>
<td>b</td>
<td>Did the organization have aggregate revenues or expenses of more than $10,000 from grantmaking, fundraising, business, investment, and program service activities outside the United States, or aggregate foreign investments valued at $100,000 or more? If “Yes,” complete Schedule F, Parts I and IV.</td>
<td>14b</td>
<td></td>
</tr>
<tr>
<td>15</td>
<td>Did the organization report on Part IX, column (A), line 3, more than $5,000 of grants or other assistance to or for any foreign organization? If “Yes,” complete Schedule F, Parts II and IV.</td>
<td>15</td>
<td></td>
</tr>
<tr>
<td>16</td>
<td>Did the organization report on Part IX, column (A), line 3, more than $5,000 of aggregate grants or other assistance to or for foreign individuals? If “Yes,” complete Schedule F, Parts III and IV.</td>
<td>16</td>
<td></td>
</tr>
<tr>
<td>17</td>
<td>Did the organization report a total of more than $15,000 of expenses for professional fundraising services on Part IX, column (A), lines 9 and 11a? If “Yes,” complete Schedule G, Part I.</td>
<td>17</td>
<td></td>
</tr>
<tr>
<td>18</td>
<td>Did the organization report more than $15,000 total of fundraising event gross income and contributions on Part VIII, lines 1c and 8c? If “Yes,” complete Schedule G, Part II.</td>
<td>18</td>
<td></td>
</tr>
<tr>
<td>19</td>
<td>Did the organization report more than $15,000 of gross income from gaming activities on Part VIII, line 9a?</td>
<td>19</td>
<td></td>
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<tr>
<td>20a</td>
<td>Did the organization operate one or more hospital facilities? If “Yes,” complete Schedule H.</td>
<td>20a</td>
<td></td>
</tr>
<tr>
<td>b</td>
<td>If “Yes” to line 20a, did the organization attach a copy of its audited financial statements to this return?</td>
<td>20b</td>
<td></td>
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<tr>
<td>Part IV</td>
<td>Checklist of Required Schedules (continued)</td>
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<tr>
<td>21</td>
<td>Did the organization report more than $5,000 of grants or other assistance to any domestic organization or government on Part IX, column (A), line 17? If &quot;Yes,&quot; complete Schedule I, Parts I and II.</td>
<td></td>
<td></td>
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<tr>
<td>22</td>
<td>Did the organization report more than $5,000 of grants or other assistance to individuals in the United States on Part IX, column (A), line 21? If &quot;Yes,&quot; complete Schedule I, Parts I and III.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>23</td>
<td>Did the organization answer &quot;Yes&quot; to Part VII, Section A, line 3, 4, or 5 about the compensation of the organization's current and former officers, directors, trustees, key employees, and highest compensated employees? If &quot;Yes,&quot; complete Schedule J.</td>
<td></td>
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</tr>
<tr>
<td>24a</td>
<td>Did the organization have a tax-exempt bond issue with an outstanding principal amount of more than $100,000 as of the last day of the year, that was issued after December 31, 2002? If &quot;Yes,&quot; answer lines 24b through 24d and complete Schedule K, if &quot;No,&quot; go to line 25a.</td>
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</tr>
<tr>
<td>24b</td>
<td>Did the organization invest any proceeds of tax-exempt bonds beyond a temporary period of exception?</td>
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<tr>
<td>24c</td>
<td>Did the organization maintain an escrow account other than a refunding escrow at any time during the year to defease any tax-exempt bonds?</td>
<td></td>
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</tr>
<tr>
<td>24d</td>
<td>Did the organization act as an &quot;on behalf of&quot; issuer for bonds outstanding at any time during the year?</td>
<td></td>
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<tr>
<td>25a</td>
<td>Section 501(c)(3) and 501(q) organizations. Did the organization engage in an excess benefit transaction with a disqualified person during the year? If &quot;Yes,&quot; complete Schedule L, Part I.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>25b</td>
<td>Did the organization report any amount on Part X, line 5, 6, or 22 for receivables from or payables to any current or former officers, directors, trustees, key employees, highest compensated employees, or disqualified persons? If so, complete Schedule L, Part II.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>26</td>
<td>Did the organization provide a grant or other assistance to an officer, director, trustee, key employee, substantial contributor or employee thereof, a grant selection committee member, or to a 35% controlled entity or family member of any of those persons? If &quot;Yes,&quot; complete Schedule L, Part III.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>27</td>
<td>Was the organization a party to a business transaction with one of the following parties (see Schedule L, Part IV instructions for applicable filing thresholds, conditions, and exceptions):</td>
<td></td>
<td></td>
</tr>
<tr>
<td>a</td>
<td>A current or former officer, director, trustee, or key employee? If &quot;Yes,&quot; complete Schedule L, Part IV.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>b</td>
<td>A family member of a current or former officer, director, trustee, or key employee? If &quot;Yes,&quot; complete Schedule L, Part IV.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>c</td>
<td>An entity of which a current or former officer, director, trustee, or key employee (or a family member thereof) was an officer, director, trustee, or direct or indirect owner? If &quot;Yes,&quot; complete Schedule L, Part IV.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>29</td>
<td>Did the organization receive more than $25,000 in non-cash contributions? If &quot;Yes,&quot; complete Schedule M.</td>
<td></td>
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<tr>
<td>30</td>
<td>Did the organization receive contributions of art, historical treasures, or other similar assets, or qualified conservation contributions? If &quot;Yes,&quot; complete Schedule M.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>31</td>
<td>Did the organization liquidate, terminate, or dissolve and cease operations? If &quot;Yes,&quot; complete Schedule N, Part I.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>32</td>
<td>Did the organization sell, exchange, dispose of, or transfer more than 25% of its net assets? If &quot;Yes,&quot; complete Schedule N, Part II.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>33</td>
<td>Did the organization own 100% of an entity disregarded as separate from the organization under Regulations sections 301.7701-2 and 301.7701-2? If &quot;Yes,&quot; complete Schedule R, Part I.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>34</td>
<td>Was the organization related to any tax-exempt or taxable entity? If &quot;Yes,&quot; complete Schedule R, Part II, III, or IV, and Part V, line 1.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>35a</td>
<td>Did the organization have a controlled entity within the meaning of section 512(b)(13)?</td>
<td></td>
<td></td>
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<tr>
<td>35b</td>
<td>Did the organization receive any payment from or engage in any transaction with a controlled entity within the meaning of section 512(b)(13)? If &quot;Yes,&quot; complete Schedule R, Part V, line 2.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>36</td>
<td>Section 501(c)(3) organizations. Did the organization make any transfers to an exempt non-charitable related organization? If &quot;Yes,&quot; complete Schedule R, Part V, line 2.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>37</td>
<td>Did the organization conduct more than 5% of its activities through an entity that is not a related organization and that is treated as a partnership for federal income tax purposes? If &quot;Yes,&quot; complete Schedule R, Part VI.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>38</td>
<td>Did the organization complete Schedule O and provide explanations in Schedule O for Part VI, lines 11b and 197? Note: All Form 990 filers are required to complete Schedule O.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Part V  Statements Regarding Other IRS Filings and Tax Compliance

Check if Schedule O contains a response or note to any line in this Part V

1a  Enter the number reported in Box 3 of Form 1099. Enter -0- if not applicable

1b  Enter the number of Forms W-2G included in line 1a. Enter -0- if not applicable

1c  Did the organization comply with backup withholding rules for reportable payments to vendors and reportable gaming (gambling) winnings to prize winners?

2a  Enter the number of employees reported on Form W-3, Transmittal of Wage and Tax Statements, filed for the calendar year ending with or within the year covered by this return

2b  If at least one is reported on line 2a, did the organization file all required federal employment tax returns?

Note. If the sum of lines 1a and 2a is greater than 250, you may be required to e-file (see instructions)

3a  Did the organization have unrelated business gross income of $1,000 or more during the year?

3b  If "Yes," has it filed a Form 990-T for this year? If "No," to line 3b, provide an explanation in Schedule O

4a  At any time during the calendar year, did the organization have an interest in, or a signature or other authority over, a financial account in a foreign country (such as a bank account, securities account, or other financial account)?

4b  See instructions for filing requirements for Form TD F 90-22.1, Report of Foreign Bank and Financial Accounts

5a  Was the organization a party to a prohibited tax shelter transaction at any time during the tax year?

5b  Did any taxable party notify the organization that it was or is a party to a prohibited tax shelter transaction?

5c  If "Yes" to line 5a or 5b, did the organization file Form 8886-T?

6a  Does the organization have annual gross receipts that are normally greater than $100,000, and did the organization solicit any contributions that were not tax deductible as charitable contributions?

6b  If "Yes," did the organization include with every solicitation an express statement that such contributions or gifts were not tax deductible?

7  Organizations that may receive deductible contributions under section 170(c).

7a  Did the organization receive a payment in excess of $75 made partly as a contribution and partly for goods and services provided to the payor?

7b  If "Yes," did the organization notify the donor of the value of the goods or services provided?

7c  Did the organization sell, exchange, or otherwise dispose of tangible personal property for which it was required to file Form 6292?

7d  If "Yes," indicate the number of Forms 6292 filed during the year

7e  Did the organization receive any funds, directly or indirectly, to pay premiums on a personal benefit contract?

7f  Did the organization, during the year, pay premiums, directly or indirectly, on a personal benefit contract?

7g  If the organization received a contribution of qualified intellectual property, did the organization file Form 8899 as required?

7h  If the organization received a contribution of cars, boats, airplanes, or other vehicles, did the organization file a Form 1096-C?

8  Sponsoring organizations maintaining donor advised funds and section 509(a)(3) supporting organizations.

8a  Did the supporting organization, or a donor advised fund maintained by a sponsoring organization, have excess business holdings at any time during the year?

9  Sponsoring organizations maintaining donor advised funds.

9a  Did the organization make any taxable distributions under section 4966?

9b  Did the organization make a distribution to a donor, donor advisor, or related person?

10  Section 501(c)(7) organizations. Enter:

10a  Initiation fees and capital contributions included on Part VIII, line 12

10b  Gross receipts, included on Form 990, Part VIII, line 12, for public use of club facilities

11  Section 501(c)(12) organizations. Enter:

11a  Gross income from members or shareholders

11b  Gross income from other sources (Do not net amounts due or paid to other sources against amounts due or received from them.)

12a  Section 4947(a)(1) non-exempt charitable trusts. Is the organization filing Form 990 in lieu of Form 1041?

12b  If "Yes," enter the amount of tax-exempt interest received or accrued during the year

13  Section 501(c)(29) qualified nonprofit health insurance issuers.

13a  Is the organization licensed to issue qualified health plans in more than one state?

13b  Enter the amount of reserves the organization is required to maintain in the states in which the organization is licensed to issue qualified health plans

13c  Enter the amount of reserves on hand

14a  Did the organization receive any payments for indoor tanning services during the tax year?

14b  If "Yes," has it filed a Form 720 to report these payments? If "No," provide an explanation in Schedule O
Part VI  Governance, Management, and Disclosure For each "Yes" response to lines 2 through 7b below, and for a "No" response to the 8a, 8b, or 10b below, describe the circumstances, processes, or changes in Schedule O. See Instructions. Check if Schedule O contains a response or note to any line in this Part VI.

Section A. Governing Body and Management

1a Enter the number of voting members of the governing body at the end of the tax year.  
   If there are material differences in voting rights among members of the governing body, or 
   if the governing body delegated broad authority to an executive committee or similar 
   committee, explain in Schedule O.  

1b Enter the number of voting members included in line 1a, above, who are independent  

2  Did any officer, director, trustee, or key employee have a family relationship or a business relationship with any other officer, director, trustee, or key employee?  

3a Did the organization delegate control over management duties customarily performed by or under the direct supervision of officers, directors, trustees, or key employees to a management company or other person?  

4  Did the organization make any significant changes to its governing documents since the prior Form 990 was filed?  

5  Did the organization become aware during the year of a significant diversion of the organization’s assets?  

6a Did the organization have members or stockholders?  

7a Are any governance decisions of the organization reserved to (or subject to approval by) members, stockholders, or persons other than the governing body?  

8  Did the organization contemporaneously document the meetings held or written actions undertaken during the year by the following:  

9a The governing body?  

9b Each committee with authority to act on behalf of the governing body?  

9c Is there any officer, director, trustee, or key employee listed in Part VII, Section A, who cannot be reached at the organization’s mailing address? If "Yes," provide the names and addresses in Schedule O.  

Section B. Policies (This Section B requests information about policies not required by the Internal Revenue Code.)

10a Did the organization have local chapters, branches, or affiliates?  

10b If "Yes," did the organization have written policies and procedures governing the activities of such chapters, branches, and affiliates?  

11a Has the organization provided a complete copy of this Form 990 to all members of its governing body before filing the form?  

11b Describe in Schedule O the process, if any, used by the organization to review this Form 990.  

12a Did the organization have a written policy of interest policies? If "No," go to line 13  

12b Were officers, directors, or trustees, and key employees required to disclose annually interests that could give rise to conflicts?  

13a Did the organization regularly and consistently monitor and enforce compliance with the policy? If "Yes," describe in Schedule O how this was done.  

14a Did the organization have a written whistleblower policy?  

14b Did the organization have a written document retention and destruction policy?  

15 Did the process for determining compensation of the following persons include a review and approval by independent persons, comparability data, and contemporaneous substantiation of the decision and decision?  

15a The organization’s CEO, Executive Director, or top management official  

15b Other officers or key employees of the organization.  

16a Did the organization invest in, contribute assets to, or participate in a joint venture or similar arrangement with a taxable entity during the year?  

16b If "Yes," did the organization follow a written policy or procedure requiring the organization to evaluate its participation in joint venture arrangements under applicable federal tax law, and take steps to safeguard the organization’s exempt status with respect to such arrangements?  

Section C. Disclosure

17 List the states with which a copy of this Form 990 is required to be filed.  

18 Section 6104 requires an organization to make its Forms 1023 or 1024 (or applicable), 990, and 990-T (Section 501(c)(3)s only) available for public inspection. Indicate how you made these available. Check all that apply.  

☐ Own website  ☐ Another’s website  ☐ Upon request  ☐ Other (explain in Schedule O)  

19 Describe in Schedule O whether (and if so, how) the organization made its governing documents, conflict of interest policy, and financial statements available to the public during the tax year.  

20 State the name, physical address, and telephone number of the person who possesses the books and records of the organization.
## Part VII Compensation of Officers, Directors, Trustees, Key Employees, Highest Compensated Employees, and Independent Contractors

Check if Schedule O contains a response or note to any line in this Part VII. ☐

**Section A. Officers, Directors, Trustees, Key Employees, and Highest Compensated Employees**

1a Complete this table for all persons required to be listed. Report compensation for the calendar year ending with or within the organization's tax year.

- List all of the organization's current officers, directors, trustees (whether individuals or organizations), regardless of amount of compensation. Enter -- in columns (D), (E), and (F) if no compensation was paid.

- List all of the organization's current key employees, if any. See instructions for definition of "key employee."

- List the organization's five current highest compensated employees (other than an officer, director, trustee, or key employee) who received reportable compensation (Box 5 of Form W-2 and/or Box 7 of Form 1099-MISC) of more than $100,000 from the organization and any related organizations.

- List all of the organization's former officers, key employees, and highest compensated employees who received more than $100,000 of reportable compensation from the organization and any related organizations.

- List all of the organization's former directors or trustees that received, in the capacity as a former director or trustee of the organization, more than $10,000 of reportable compensation from the organization and any related organizations.

List persons in the following order: individual trustees or directors; institutional trustees; officers; key employees; highest compensated employees; and former such persons.

□ Check this box if neither the organization nor any related organization compensated any current officer, director, or trustee.

<table>
<thead>
<tr>
<th></th>
<th>Name and Title</th>
<th>Average hours per week (If any)</th>
<th>Position (Do not check more than one box, unless person is both an officer and a director/trustee)</th>
<th>Key employee (Yes/No)</th>
<th>Highest compensated employee (Yes/No)</th>
<th>Reportable compensation from the organization (W-2/1099-MISC)</th>
<th>Reportable compensation from related organizations (W-2/1099-MISC)</th>
<th>Estimated amount of other compensation from the organization and related organizations</th>
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</table>
### Part VII  Section A. Officers, Directors, Trustees, Key Employees, and Highest Compensated Employees (continued)

<table>
<thead>
<tr>
<th>(A) Name and title</th>
<th>(B) Average hours per week (for any hours for related organizations below (d)(1)(i) line)</th>
<th>(C) Position</th>
<th>(D) Other income from related organizations (W-2/1099-MISC)</th>
<th>(E) Reportable compensation from related organizations (W-2/1099-MISC)</th>
<th>(F) Estimated amount of other compensation from the organizations and related organizations</th>
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<td>(16)</td>
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</tbody>
</table>

1b Sub-total: 

c Total from continuation sheets to Part VII, Section A: 

d Total (add lines 1b and 1c): 

2 Total number of individuals (including but not limited to those listed above) who received more than $100,000 of reportable compensation from the organization:

<table>
<thead>
<tr>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td></td>
</tr>
</tbody>
</table>

3 Did the organization list any former officer, director, or trustee, key employee, or highest compensated employee on line 1a? If "Yes," complete Schedule J for such individual.

4 For any individual listed on line 1a, is the sum of reportable compensation and other compensation from the organization and related organizations greater than $150,000? If "Yes," complete Schedule J for such individual.

5 Did any person listed on line 1a receive or accrue compensation from any unrelated organization or individual for services rendered to the organization? If "Yes," complete Schedule J for such person.

### Section B. Independent Contractors

1 Complete this table for your five highest compensated independent contractors that received more than $100,000 of compensation from the organization. Report compensation for the calendar year ending with or within the organization's tax year.

<table>
<thead>
<tr>
<th>(A) Name and business address</th>
<th>(B) Description of services</th>
<th>(C) Compensation</th>
</tr>
</thead>
<tbody>
<tr>
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</tbody>
</table>

2 Total number of independent contractors (including but not limited to those listed above) who received more than $100,000 of compensation from the organization: 

<table>
<thead>
<tr>
<th>Yes</th>
<th>No</th>
</tr>
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<tbody>
<tr>
<td></td>
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</tbody>
</table>
### Part VII: Statement of Revenue

Check if Schedule O contains a response or note to any line in this Part VII.

<table>
<thead>
<tr>
<th>Contributions, Gifts, Grants, and Contributions or Other Similar Amounts</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
</tr>
</thead>
<tbody>
<tr>
<td>1a Federated campaigns</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1b Membership dues</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1c Fundraising events</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>1d Related organizations</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>1e Government grants (contributions)</td>
<td></td>
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<tr>
<td>1f All other contributions, gifts, grants, and similar amounts not included above</td>
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<tr>
<td>1g Necessity expenses included in lines 1a-1f</td>
<td>$</td>
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<tr>
<td>1h Total, Add lines 1a-1f</td>
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</table>

<table>
<thead>
<tr>
<th>Program Service Revenue</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2a</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2b</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2c</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2d</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2e</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2f All other program service revenue</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2g Total, Add lines 2a-2f</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Investment Income (including dividends, interest, and other similar amounts)</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Royalties</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
</tr>
</thead>
<tbody>
<tr>
<td>5</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Gross rent</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
</tr>
</thead>
<tbody>
<tr>
<td>6a</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Less: rental expenses</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6b</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Rental income or (loss)</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
</tr>
</thead>
<tbody>
<tr>
<td>6c</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Less: cost or other basis and sales expenses</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6d</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Other Revenue</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
</tr>
</thead>
<tbody>
<tr>
<td>8a Gross income from fundraising events (not including $ of contributions reported on line 1d). See Part IV, line 18</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8b Less: direct expenses</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8c Net income or (loss) from fundraising events</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9a Gross income from gaming activities. See Part IV, line 19</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9b Less: direct expenses</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9c Net income or (loss) from gaming activities</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10a Gross sales of inventory, less returns and allowances</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10b Less: cost of goods sold</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10c Net income or (loss) from sales of inventory</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Miscellaneous Revenue</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
</tr>
</thead>
<tbody>
<tr>
<td>11a</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>11b</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>11c</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>11d All other revenue</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>11e Total, Add lines 11a-11d</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>12 Total revenue. See instructions</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Do not include amounts reported on lines 6b, 7b, 8b, 9b, and 10b of Part VIII.</td>
<td>Total expenses</td>
<td>Program service expenses</td>
<td>Management and general expenses</td>
</tr>
<tr>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td>1</td>
<td>Grants and other assistance to governments and organizations in the United States. See Part IV, line 21</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Grants and other assistance to individuals in the United States. See Part IV, line 22</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Grants and other assistance to governments, organizations, and individuals outside the United States. See Part IV, lines 15 and 16</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Benefits paid to or for members</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>Compensation of current officers, directors, trustees, and key employees</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>Compensation not included above, to disqualified persons (as defined under section 4958(f)(1)) and persons described in section 4958(f)(3)(A)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>Other salaries and wages</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>Pension plan accruals and contributions (include section 401(k) and 403(b) employer contributions)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>Other employee benefits</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>Payroll taxes</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>11</td>
<td>Fees for services (non-employees):</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>a</td>
<td>Management</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>b</td>
<td>Legal</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>c</td>
<td>Accounting</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>d</td>
<td>Lobbying</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>e</td>
<td>Professional fundraising services. See Part IV, line 17</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>f</td>
<td>Investment management fees</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>g</td>
<td>Other. If line 11g amount exceeds 10% of line 25, column (A), line 11g expenses on Schedule O</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>12</td>
<td>Advertising and promotion</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>13</td>
<td>Office expenses</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>14</td>
<td>Information technology</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>15</td>
<td>Royalties</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>16</td>
<td>Occupancy</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>17</td>
<td>Travel</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>18</td>
<td>Payments of travel or entertainment expenses for any federal, state, or local public officials</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>19</td>
<td>Conferences, conventions, and meetings</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>20</td>
<td>Interest</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>21</td>
<td>Payments to affiliates</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>22</td>
<td>Depreciation, depletion, and amortization</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>23</td>
<td>Insurance</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>24</td>
<td>Other expenses. Itemize expenses not covered above (1) list miscellaneous expenses in line 24e. If line 24e amount exceeds 10% of line 25, column (A) amount, list line 24e expenses on Schedule O</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>a</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>b</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>c</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>d</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>e</td>
<td>All other expenses</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>25</td>
<td>Total functional expenses. Add lines 1 through 24e</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>26</td>
<td>Joint costs. Complete this line only if the organization reported in column (B) joint costs from a combined educational campaign and fundraising solicitation. Check here if following SOP 98-2 (ASC 958-720)</td>
<td></td>
<td></td>
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</tbody>
</table>
### Part X  Balance Sheet

Check if Schedule C contains a response or note to any line in this Part X.

<table>
<thead>
<tr>
<th>Part</th>
<th>Description</th>
<th>(A) Beginning of year</th>
<th>(B) End of year</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Cash—non-interest-bearing</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Savings and temporary cash investments</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Pledges and grants receivable, net</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Accounts receivable, net</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>Loans and other receivables from current and former officers, directors, trustees, key employees, and highest compensated employees. Complete Part II of Schedule L</td>
<td>5</td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>Loans and other receivables from other disqualified persons (as defined under section 4958(f)(1)), persons described in section 4958(c)(3)(B), and contributing employers and sponsoring organizations of section 501(c)(9) voluntary employee benefit plans. Complete Part II of Schedule L</td>
<td>6</td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>Notes and loans receivable, net</td>
<td>7</td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>Inventories for sale or use</td>
<td>8</td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>Prepaid expenses and deferred charges</td>
<td>9</td>
<td></td>
</tr>
<tr>
<td>10a</td>
<td>Land, buildings, and equipment: cost or other basis. Complete Part VI of Schedule D</td>
<td>10a</td>
<td></td>
</tr>
<tr>
<td>10b</td>
<td>Less: accumulated depreciation</td>
<td>10b</td>
<td>10c</td>
</tr>
<tr>
<td>11</td>
<td>Investments—publicly traded securities</td>
<td>11</td>
<td></td>
</tr>
<tr>
<td>12</td>
<td>Investments—other securities. See Part IV, line 11</td>
<td>12</td>
<td></td>
</tr>
<tr>
<td>13</td>
<td>Investments—program-related. See Part IV, line 11</td>
<td>13</td>
<td></td>
</tr>
<tr>
<td>14</td>
<td>Intangible assets</td>
<td>14</td>
<td></td>
</tr>
<tr>
<td>15</td>
<td>Other assets. See Part IV, line 11</td>
<td>15</td>
<td></td>
</tr>
<tr>
<td>16</td>
<td>Total assets. Add lines 1 through 15 (must equal line 34)</td>
<td>16</td>
<td></td>
</tr>
<tr>
<td>17</td>
<td>Accounts payable and accrued expenses</td>
<td>17</td>
<td></td>
</tr>
<tr>
<td>18</td>
<td>Grants payable</td>
<td>18</td>
<td></td>
</tr>
<tr>
<td>19</td>
<td>Deferred revenue</td>
<td>19</td>
<td></td>
</tr>
<tr>
<td>20</td>
<td>Deferred revenue</td>
<td>20</td>
<td></td>
</tr>
<tr>
<td>21</td>
<td>Escrow or custodial account liability. Complete Part IV of Schedule D.</td>
<td>21</td>
<td></td>
</tr>
<tr>
<td>22</td>
<td>Loans and other payables to current and former officers, directors, trustees, key employees, highest compensated employees, and disqualified persons. Complete Part II of Schedule L</td>
<td>22</td>
<td></td>
</tr>
<tr>
<td>23</td>
<td>Secured mortgages and notes payable to unrelated third parties</td>
<td>23</td>
<td></td>
</tr>
<tr>
<td>24</td>
<td>Unsecured notes and loans payable to unrelated third parties</td>
<td>24</td>
<td></td>
</tr>
<tr>
<td>25</td>
<td>Other liabilities (including federal income tax, payables to related third parties, and other liabilities not included on lines 17-24). Complete Part X of Schedule D</td>
<td>25</td>
<td></td>
</tr>
<tr>
<td>26</td>
<td>Total liabilities. Add lines 17 through 25</td>
<td>26</td>
<td></td>
</tr>
<tr>
<td>27</td>
<td>Organizations that follow SFAS 117 (ASC 958), check here ( \square ) and complete lines 27 through 29, and lines 33 and 34.</td>
<td>27</td>
<td></td>
</tr>
<tr>
<td>28</td>
<td>Unrestricted net assets</td>
<td>28</td>
<td></td>
</tr>
<tr>
<td>29</td>
<td>Temporarily restricted net assets</td>
<td>29</td>
<td></td>
</tr>
<tr>
<td>30</td>
<td>Capital stock or trust principal, or current funds</td>
<td>30</td>
<td></td>
</tr>
<tr>
<td>31</td>
<td>Paid-in or capital surplus, or land, building, or equipment fund</td>
<td>31</td>
<td></td>
</tr>
<tr>
<td>32</td>
<td>Retained earnings, endowment, accumulated income, or other funds</td>
<td>32</td>
<td></td>
</tr>
<tr>
<td>33</td>
<td>Total net assets or fund balances</td>
<td>33</td>
<td></td>
</tr>
<tr>
<td>34</td>
<td>Total liabilities and net assets/fund balances</td>
<td>34</td>
<td></td>
</tr>
</tbody>
</table>
### Part XI Reconciliation of Net Assets

Check if Schedule O contains a response or note to any line in this Part XI.

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Total revenue (must equal Part VIII, column [A], line 12)</td>
</tr>
<tr>
<td>2</td>
<td>Total expenses (must equal Part IX, column [A], line 26)</td>
</tr>
<tr>
<td>3</td>
<td>Revenue less expenses. Subtract line 2 from line 1</td>
</tr>
<tr>
<td>4</td>
<td>Net assets or fund balances at beginning of year (must equal Part X, line 33, column (A))</td>
</tr>
<tr>
<td>5</td>
<td>Net unrealized gains (losses) on investments</td>
</tr>
<tr>
<td>6</td>
<td>Donated services and use of facilities</td>
</tr>
<tr>
<td>7</td>
<td>Investment expenses</td>
</tr>
<tr>
<td>8</td>
<td>Prior period adjustments</td>
</tr>
<tr>
<td>9</td>
<td>Other changes in net assets or fund balances (explain in Schedule O)</td>
</tr>
<tr>
<td>10</td>
<td>Net assets or fund balances at end of year. Combine lines 3 through 9 (must equal Part X, line 33, column (B))</td>
</tr>
</tbody>
</table>

### Part XII Financial Statements and Reporting

Check if Schedule O contains a response or note to any line in this Part XI.

1. Accounting method used to prepare the Form 990: □ Cash □ Accrual □ Other
   - If the organization changed its method of accounting from a prior year or checked "Other," explain in Schedule O.

<table>
<thead>
<tr>
<th></th>
<th>2a</th>
<th>2b</th>
</tr>
</thead>
<tbody>
<tr>
<td>2a</td>
<td>Were the organization's financial statements compiled or reviewed by an independent accountant?</td>
<td></td>
</tr>
<tr>
<td>2b</td>
<td>Were the organization's financial statements audited by an independent accountant?</td>
<td></td>
</tr>
</tbody>
</table>

   - If "Yes," check a box below to indicate whether the financial statements for the year were compiled or reviewed on a separate basis, consolidated basis, or both:
     - □ Separate basis □ Consolidated basis □ Both consolidated and separate basis

   - If "Yes," check a box below to indicate whether the financial statements for the year were audited on a separate basis, consolidated basis, or both:
     - □ Separate basis □ Consolidated basis □ Both consolidated and separate basis

2c. If "Yes" to line 2a or 2b, does the organization have a committee that assumes responsibility for oversight of the audit, review, or compilation of its financial statements and selection of an independent accountant?
   - If the organization changed either its oversight process or selection process during the tax year, explain in Schedule O.

3a. As a result of a federal award, was the organization required to undergo an audit or audits as set forth in the Single Audit Act and OMB Circular A-133?

3b. If "Yes," did the organization undergo the required audit or audits? If the organization did not undergo the required audit or audits, explain why in Schedule O and describe any steps taken to undergo such audits.
Curriculum Vitae

Graig P. Arcuri

Education:

Doctor of Philosophy – Management  
Walden University, Minneapolis, Minnesota  
Dissertation title: *Sustainable revenue Generation System for Nonprofit Institutions of Higher Education*

Master of Business Administration – Management  
University of Phoenix, Phoenix, Arizona  

Bachelor of Science – Finance  
Siena College, Loudonville, New York  

Associates in Applied Science – Banking Insurance & Real Estate  
Westchester Community College, Valhalla, New York

Relevant Teaching Experience:

Adjunct – Finance  
2014 –  
State University of New York at Oswego  
(School of Business - which maintains accreditation by AACSB)

Mr. Arcuri currently teaches “FIN 325 – Corporate Finance”. This course includes an introduction to the theory and practice of corporate financial decision-making. Topics include financial statement analysis, capital markets, capital budgeting, capital structure and financing decisions and working capital management. The emphasis is on the allocation of corporate resources in the context of corporate strategic policy.

Instructor – Continuing and Professional Studies (CAPS)  
2013 –  
Baruch College, Manhattan, NY

Mr. Arcuri currently teaches “MG005201C - The Art of Supervision: Confronting the Difficult Employee”. The learning objectives for this class include 1) learning effective techniques, approaches, strategies and methods for dealing with the difficult employee, and be immediately able to apply what has been learned week after week, 2) learning how to give constructive feedback, 3) learning how to handle the conflict that arises when
confronting a difficult employee, 4) learning the fundamentals of creating and building a high-performing team that supports every team member while contributing their best work to the organization, and 5) learning how an individual’s personal style of handling conflict influences the outcome of their intervention.

Mentor
2011 -
University of Phoenix Alumni Association

Mr. Arcuri shares his knowledge and experiences as a reference point in order to help guide his mentees towards the achievement of their goals, as well as provide guidance on challenges that the mentee may be facing in the completion of their degree or career advancement.

**Relevant Professional Experience:**

Executive, Entrepreneur, and Instructor – Business & Technology
2004 - 2012
GPA Investment Corporation

In addition to other senior management duties as founder and President, Mr. Arcuri was responsible for the education and training of personnel in the Financial, Construction, and Real Estate Development industries. Mr. Arcuri has extensive professional and training experience in management, leadership, project management, marketing, accounting, financing, business statistics, business mathematics (projected financial statements, statement analysis, financial statements, cost and return of capital analysis, ratio analysis, risk analysis, business metrics, environmental economics, resource allocation, system analysis, and statistics), as well as, business computer applications (Access, Excel, Outlook, Power Point, Publisher, Word, Microsoft Project, Timberline, Sure Track, AutoCAD, Adobe Acrobat, Quick Books, and more) and field operations including production, equipment operation, technology, customer service, and safety.

Mr. Arcuri has over 25 years of professional experience encompassed working with many other industries including, retail, educational facilities, hospitality, government, military, large and small institutional, commercial, and residential developments, from inception, financial modeling, financing, approval, and design through development, and turnover.

**Current Research**

Sustainable Revenue Generation System for Nonprofit Institutions of Higher Education (NIHE) (Walden IRB # 07-02-13-0064846). The purpose of my doctoral study is to examine the interactions among components of the nonprofit university system, existing revenue generation methods, and sustainability of revenue generation, all in an effort to generate a new sustainable revenue theory for nonprofit universities within the United
States. This study may benefit society by (a) enabling NIHEs to find new sources of revenue, (b) increase the affordability and accessibility of higher education for many students, and (c) enabling NIHEs to have an organizational focus on their core mission of education, rather than revenue generation.

**Professional Presentations and Papers:**
