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# Exploring the Correlates of the Financial Health of Arts Nonprofit Organizations

Jung-In Soh

ABSTRACT

EXPLORING THE CORRELATES OF THE FINANCIAL HEALTH

OF ARTS NONPROFIT ORGANIZATIONS

By

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This dissertation focuses on how different resource streams, including financial revenue, supportive socioeconomic environments, and collaboration, that are extracted from a nonprofit's environment can impact their financial health. More specifically, I explore the main research question: what are the correlates of arts nonprofits' financial health? I conduct statistical analyses of original survey data, financial information, and socio-economic data from 2008 to 2013 to test the hypotheses that aligning benefits provided with appropriate revenue sources, supportive socio-economic environments, and collaborating with other organizations are positively related to financial health, calculated as six measures of long, short, and current-term financial health. The findings indicate that arts nonprofits that matched their private, public, and mixed benefits with corresponding revenue sources only had higher financial health outcomes when the definition of mixed nonprofits is relaxed. Arts nonprofits with private funding that are private in nature did have higher equity ratios, although publicly supported arts nonprofits that were public in nature had lower equity ratios and change in months of liquidity. I also find that population size and minority residents in a county are negatively associated with months of liquidity, thus providing limited support for and against hypotheses. Finally, collaborating arts nonprofits and

those that shared financial resources to a greater extent had better financial health outcomes for select financial health measures, although the number of partnerships an organization had is not always positively associated with financial health benefits. Results suggest that financial health at different time periods have different drivers, and that public and private arts nonprofits have different drivers of financial health as well. As a result, nonprofit practitioners should examine their portfolio of benefits and revenue sources, as well as identify their current, short, and long-term goals to understand how benefit-revenue alignment, location, and collaboration can impact financial health. In addition to providing strategic insights for nonprofit practitioners, the findings of the dissertation contribute to literature on nonprofit finance and financial health, as well as collaboration.

Keywords

Nonprofit organizations, Financial health, Financial management, Benefits theory, Environmental effects, Collaboration

# EXPLORING THE CORRELATES OF THE FINANCIAL HEALTH OF ARTS NONPROFIT ORGANIZATIONS

BY

JUNG-IN SOH

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ACCEPTANCE

This dissertation was prepared under the direction of the candidate's Dissertation Committee. It has been approved and accepted by all members of that committee, and it has been accepted in partial fulfillment of the requirements for the degree of Doctor of Philosophy in Public Policy in the Andrew Young School of Policy Studies of Georgia State University.

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# CHAPTER I INTRODUCTION TO THE DISSERTATION

## Introduction

The economic recession that occurred in the United States from late 2007 to 2009 is understood as having had negative impacts on the nonprofit sector. Different surveys reveal that nonprofits experienced increased demand for services despite reduced revenue (e.g., Gassman et al., 2012; Salamon, Geller, & Spence, 2009). Nonprofits experienced revenue losses in contributions from individuals, corporations, and foundations; government revenue; and investment income during the economic downturn (Salamon, et al., 2009). For the nonprofit arts subsector, the impacts of the Great Recession were particularly long-lasting, as the subsector had not recovered to pre-recession levels by the end of 2012 (McKeever & Pettijohn, 2014). In fact, arts nonprofit organizations were among the hardest hit during the economic recession compared to other subsectors, with greater proportions of arts nonprofits reporting severe to very severe levels of financial distress due to causes such as falling revenue or changes in preferences to giving to emergency services such as food banks (Reich & Wimer, 2012; Salamon, et al., 2009).

In order to minimize such financial distress, nonprofits took on a variety of strategies. During the Great Recession, financial strategies included cost-cutting measures, such as implementing hiring or salary freezes and decreasing employee benefits, and revenue development strategies (Gassman, et al., 2012; Morreale, 2011; Salamon, et al., 2009; Sheets, Marcus, & Migliaccio, 2009). The latter strategy included tactics such as diversifying revenue streams or refining program offerings to appeal to new and/or broader constituents to bring in additional revenue. Another strategy that nonprofits implemented was increasing the number of collaborative efforts, which has cost sharing benefits (Mosley, Maronick, & Katz, 2012). In order to rebound, arts nonprofits also began to increase their audience engagement initiatives in light

of changing audience demographics and preferences for the arts, declining organizational memberships, and increased competition among arts organizations (Cunniffe & Hawkins, 2016). Taken together, these strategies suggest that nonprofits can protect their financial standing by actively considering population demographics and collaborating with other organizations. However, whether these strategies had tangible impacts on nonprofit financial health, in particular for arts nonprofits that utilized these strategies during the recession, has not yet been fully studied. So, what are the factors that are related to arts nonprofit financial health?

## Nonprofit Financial Health

It is important to study the factors that impact the financial health of nonprofits because financial health provides an indication about a nonprofit's service delivery and survival. The financial health of nonprofit organizations is often studied in terms of organizational survival, stability or volatility, and growth using an open systems framework. In an open system, organizations interact with other organizations and individuals to import resources and export goods and services (e.g., von Bertalanffy, 1950a). For instance, in resource dependency theory, organizational financial health is conceived of as survival. According to this theory, survival depends on the ability to acquire scarce resources, financial or otherwise. Overreliance on a single funder can have detrimental consequences for organizational survival (Pfeffer & Salancik, 1978). Most nonprofit research using a resource dependency perspective operationalizes the concept as revenue concentration and finds that nonprofits that have lower revenue concentration tend to have improved measures of financial health, such as lower revenue volatility, higher surplus accumulation, and higher profitability, which have implications on the ability to provide services (Chang & Tuckman, 1994; Mayer, Wang, Egginton, & Flint, 2014). Population ecology

studies of organizational survival also find that nonprofits with lower revenue concentration have higher survival rates compared to nonprofits with highly concentrated revenue (e.g., Bielefeld, 1994; Crittenden, 2000; Hager, 2001).

Specific funding sources are important for nonprofit survival as well, since acquiring government revenue may be related to improved nonprofit survival (Chambre & Fatt, 2002). At the same time, government grants and contracts can also be a source of financial risk, due to potential problems such as delayed payments, the failure to cover overhead costs, or dealing with the complicated nature of government reporting requirements (Boris, Leon, Roeger, & Nikolova, 2010b; n.a., 2013a). The loss of local government funding contributed to the possibility of closure for several museums in California, including the Santa Cruz Museum of Natural History that lost half of its revenue in 2009 when city government announced austerity budget cuts (Harmanci, 2010; Hoye, 2009). More recent examples include the Green Bay symphony orchestra closing in 2015 and the Santa Fe's Children Museum temporarily halting public visitation in January 2016 due to insufficient revenue (Moss, 2016; Sheets, et al., 2009; Steinbach, 2015). As these examples and the research findings suggest, nonprofit financial health and survival can hinge on the contents of an organization's income portfolio.

Although these theories suggest that nonprofits should seek out certain revenue sources or diversify to attain financial health, nonprofit organizations may not do so in reality. In fact, nonprofit income portfolios tend to maintain stability over time, with no evidence of increasing revenue diversification or changing reliance on either commercial or donative sources of revenue (Teasdale, Kerlin, Young, & Soh, 2013). The benefits theory of nonprofit finance provides a potential explanation for this long-term stability. According to benefits theory, nonprofits rely on a relatively unchanging mix of revenue sources because mission, which is also stable, determines

revenue sources (Young, 2007). Essentially, mission determines the type of services and benefits that nonprofits provide to their constituents. In turn, specific benefits correspond with certain revenue sources. Public benefits, which are enjoyed by broader communities, align with charitable contributions and government revenue. Alternatively, private benefits that accrue to individuals correspond with earned revenue due to a willingness to pay to enjoy the benefits (e.g., Fischer, Wilsker, & Young, 2011; Wilsker & Young, 2010; Young, Wilsker, & Grinsfelder, 2010). As such, based on the nature of the benefits provided and whether nonprofits provide services to individuals and/or communities, it may not be appropriate for an organization to seek multiple sources of revenue. Although previous research indicates that the number of revenue streams and which revenue streams nonprofits draw from influence their financial health, benefits theory has not yet been used to study nonprofit financial health.

However, other factors besides funding streams can impact the financial health of nonprofits. Environmental characteristics of the areas in which nonprofits are located should also be considered, since Lam and McDougle (2016) found that human service organizations located in minority and low-mobility communities are less likely to be financially healthy. Similarly, Prentice (2016) found that other environmental characteristics such as Gross Domestic Product (GDP), State Product, median household income, and revenue share are positively related to the financial health of human service and higher education nonprofit organizations. Anecdotally, ensuring that population demographics are considered when determining program offerings is important for arts organizations that rely on audiences for revenue (Cunniffe & Hawkins, 2016). This implies that arts nonprofits interact with local population, so it is possible that environmental characteristics can impact financial health similar to how populations impact human service and higher education nonprofit organizations. However, the impact of

demographic and environmental variables on the financial health of arts nonprofits has not yet been fully studied.

Working with other organizations in a given field can also impact financial health. For nonprofits, collaboration with other organizations can result in reduced operating costs, new sources of revenue through shared resources and/or expertise, and enhanced organizational legitimacy (Pettijohn, Boris, & Farrell, 2014; Sowa, 2008). Collaboration can also be attractive to funders, since nonprofits that collaborate tend to receive more government funding compared to others (Suarez, 2011). These studies suggest that nonprofits can potentially draw on environmental resources from the population of individuals and other nonprofits to achieve financial health. However, there is a lack of statistical research on this area that pertains to nonprofit arts organizations, so the relationship between collaboration and financial health, in any of its conceptualizations, is understudied.

## Overview of Dissertation

With this dissertation, I intend to address these research needs by examining the main research question: what factors are associated with nonprofit arts organizations' financial health? The dissertation's sub-research questions are: How does matching revenue sources with the benefits that an organization provides impact financial health? How and what demographic variables impact their financial health? What effect does arts nonprofit collaboration have on their financial health? These research questions, which I answer in separate chapters, have in common the focus on the financial health of arts nonprofit organizations as well as an open systems framework in which organizations interact with and are affected by their environments,

including populations of individuals or communities and other organizations (Hatch & Cunliffe, 2006; Von Bertalanffy, 1950b).

To answer the first sub-research question, I use benefits theory to examine the differences in financial health among arts nonprofits whose income portfolio composition match or do not match the benefits that they provide. This argument assumes that nonprofits interact with the broader environment by pulling financial resources from the individuals or broader publics that they serve. I expect that public benefit-providing and private benefit-providing arts nonprofits that rely on government and charitable sources of revenue and fees, respectively, have better financial health compared to arts nonprofits that do not. There are no previous studies that have attempted to link the nature of benefits provided with the financial health of nonprofit organizations, so this research is a preliminary attempt to understand this potential relationship.

The second sub-research question intends to answer whether socio-economic characteristics of an environment is related to financial health. Organizational ecology is a branch of open systems research and asserts that organizational survival, an important operationalization of financial health, hinges on relationships with environments (Yuchtman, 1967). Demographic characteristics are related to the financial health of human service nonprofit organizations as well as higher education nonprofit organizations (Lam & McDougle, 2016; Prentice, 2016), but the relationship between demographic variables and the financial health of arts nonprofits has not yet been fully studied. This is surprising, since attendance at arts nonprofits' events and charitable giving to nonprofit organizations in general vary with different demographic characteristics, suggesting that demographics and arts fiscal health may be related (e.g., Gittell & Tebaldi, 2006; Ostrower, 2005). I analyze the specific hypotheses that population size, minority population, and income are associated with nonprofit financial health.

The third sub-research question is: what role does collaboration have on the financial health of arts nonprofits? Collaboration can be used to help organizations reduce costs by sharing staff members, space, volunteers, and other resources. Participating in collaborative efforts can also lead to shared information on funding opportunities (e.g., Scheff & Kotler, 1996). Taken together, these findings suggest that because collaboration and financing are related, collaboration may impact financial health as well. I expect that organizations that collaborate with others have greater financial health than those arts nonprofits that do not (Cunniffe & Hawkins, 2016; McKeever & Pettijohn, 2014). Based on the nature of organizational partnerships, I expect that financial health and shared resources were positively related. Although collaboration involves the sharing of resources (Gazley & Brudney, 2007), the extent to which human and financial resources are shared may be related to the ability to prevent financial distress.

*Methodology*

Data Sources

For this dissertation, I utilize both primary and secondary data sources. I use IRS Form 990 Core Financial Files for financial information used to analyze the first and third sub-research questions. The IRS Form 990 data is obtained from the National Center for Charitable Statistics (NCCS) and provides financial information on nonprofit organizations. IRS Form 990s do not provide information on benefits provided and collaborative activities of arts nonprofit organizations. Consequently, to examine the first and third hypotheses, I collect my own survey data of randomly selected arts nonprofits about the benefits that they provide and their collaborative efforts. Socio-economic variables used to answer the second sub-research question

are drawn from the U.S. Census, IRS Business Master File, and the U.S. Bureau of Economic Analysis. The analysis of all three sub-research questions and groups of hypotheses take on a longitudinal aspect that includes the years 2008 to 2013. The final year of analysis is 2013 since this is the most recent and complete year of IRS Form 990 data available from the NCCS website.

## Analysis

In order to empirically analyze the hypotheses, I use a combination of statistical methods. I use the difference of means t-test to analyze differences between key groups. I also conduct panel data analyses with fixed effects and random effects analysis as dictated by tests of appropriateness. When these are not appropriate, I use pooled regression analyses. I utilize probability weights based on organizational covariates to attempt to balance for nonresponse from the entire survey sample as well as survey attrition, when appropriate.

Drawing from previous studies conceptualizing solvency as financial health, the dependent variables include: equity ratio, return on assets, months of spending, mark up, months of liquidity, and change in months of liquidity (Bowman, 2011b; Lam & McDougle, 2016). These measures capture the ability of nonprofit organizations to meet obligations and at least maintain levels of service delivery. The independent variables of interest vary by chapter. In the first chapter, I explore whether the arts nonprofits matched revenue sources to their benefits provided. To capture this, I use a dichotomous variable. If the organizations provide public benefits and have government and charitable support, and provide private benefits and have fee revenue, then the revenue sources match the benefits. Similarly, if an arts nonprofit provided both public and private benefits and draw on corresponding sources of support, then there is

benefit and revenue alignment. It is difficult to ascertain the extent to which arts nonprofits provide public or private benefits, so this is an exploratory attempt to not only identify the public and private nature of arts nonprofit organizations, but the relationship with financial health as well. For the second chapter, I include the following demographic variables as independent variables: population size, minority population, and income. Finally, in the third chapter, I measure collaboration as the number of collaborative initiatives as well as the extent to which financial and nonfinancial resources are shared in a collaborative effort.

### *Dissertation Structure*

This first chapter of the proposal provides a brief overview of nonprofit financial health and my research questions. The second chapter provides a literature review of nonprofit financial health. The third chapter discusses and tests my hypotheses regarding benefits theory. The following chapter focuses on organizational ecology and the relationship between demographic characteristic and financial health. In the next chapter, I provide an overview of nonprofit collaboration and explore the relationship between collaboration and financial health. Finally, in the concluding chapter, I summarize the findings in the previous chapters, provide limitations and contributions of the dissertation's research, and discuss possibilities for future research.

## Potential Contributions of the Dissertation

The key contribution of this dissertation is to contribute to the field of nonprofit research by providing empirical support for ways in which organizations can maintain their financial health. Additionally, the research provides more information on benefits theory, organizational ecology, collaborations, and financial health involving arts nonprofits. With this dissertation, I

also expound on how benefits theory fits into the open systems framework and extend the theory to connect the concepts of benefits, revenue, and financial health. Demographic and environmental variables are included in studies of nonprofit financial health. However, the impact of such variables on the financial health of arts nonprofits has not yet been studied. Finally, although there is great support that collaboration can lead to improved financial health via reduced costs and other mechanisms, the relationship is not empirically tested. This dissertation fills these gaps in the current literature.

Nonprofit practitioners will also be able to use the findings to minimize negative impacts from periods of financial stress, such as the economic downturn of the last decade, or unfavorable government funding policies, such as the policies that are proposed in the current legislation. Arts nonprofit organizations may incorporate the findings into their organizational strategies such as revenue development and decisions pertaining to location and work with other organizations. The findings of this dissertation also provide insights for nonprofit-related policies. For instance, there may be incentives or disincentives to encouraging nonprofits to locate in certain areas. Similarly, there may be other policy-related findings regarding the use of fee revenue, charitable contributions, or government support of arts nonprofit organizations. Although any significant findings are generalizable to only arts nonprofit organizations, other nonprofit subsectors can draw on the findings to inform their operations as well.

# CHAPTER II NONPROFIT FINANCIAL HEALTH

## Introduction

Nonprofit financial health is an important concept to study and understand due to its implications for the management of nonprofit organizations. This is particularly true for periods of economic distress, such as the Great Recession that lasted from December 2007 to June 2009 or the recent policy environment where arts funding is at jeopardy (n.a., 2016c; Ziv, 2017). During times like these, financial health is more difficult to achieve and/or maintain. The challenges nonprofit organizations experienced during the Great Recession, for instance, included: reduced revenues from charitable and governmental sources, as well as from investments and endowments; and increased operating costs (Boris, Leon, Roeger, & Nikolova, 2010a; Salamon, et al., 2009). According to a survey conducted by the Nonprofit Finance Fund (2009), 79% of all nonprofit organizations that participated in the survey reported that there was an increase in the demand for services in 2008 and 30% operated with a deficit (n.a., 2013a). These survey findings suggest that the first year of the recession created financial challenges for nonprofits that impacted their abilities to provide services. The same survey found that 30% and 28% of non-arts organizations reported operating deficits in 2008 and 2012, respectively, compared to 38% and 31% of arts nonprofits in 2008 and 2012, respectively (n.a., 2013a). These survey results suggest that arts nonprofits faced particularly difficult financial times during the downturn and the years following the downturn as well, indicating that financial health is a concern for nonprofits during any given year.

A different survey also showed that 73% of theaters and orchestras reported severe or very severe fiscal stress during the recession, suggesting that arts nonprofit organizations were

quite susceptible to the financial difficulties associated with the downturn (Salamon, et al., 2009). It is important to understand how arts nonprofit organizational strategies impact financial health because the arts subsector may be more susceptible to financial difficulties. Therefore, it is important to understand the contributing factors to arts nonprofit organizations' financial health in general. In this chapter, I explicate the relevant literature pertaining to nonprofit financial health of arts nonprofit organizations. First, I provide an overview of the financing of arts nonprofit organizations and then I discuss the open systems framework that I use as an overarching framework for the dissertation. I follow this with a discussion of the relevant conceptualizations of nonprofit financial health.

## Overview of Arts Nonprofit Financing

Nonprofit organizations in the United States may draw on a variety of revenue sources. According to IRS Form 990s, there are three broad categories of nonprofit revenue: charitable contributions from individuals, federated organizations, and government grants; program service revenue; and other revenue, which includes sources such as investment income, sales of inventory, royalties, and rental income (n.a., 2015). In 2013, there were over 287,000 filing 501(c)(3) nonprofit organizations that reported total revenue of $1.73 trillion in total revenue (McKeever, 2015). Fee revenue comprised the largest share, at 476.5% of total revenue, while second in importance were government fees and grants, which made up 24.5% of total revenue. Charitable contributions for filing public charities made up just over 13% of total revenue. Finally, government grants and investment income contributed to 8% and 4.8%, respectively, of the total revenue reported by 501(c)(3) nonprofits in 2013 (McKeever, 2015). The relative importance of these major revenue sources has remained stable since 2005, excluding 2008 when

investment income comprised 7.9% of total revenue and government grants made up 7.8% of total revenue (e.g., A. S. Blackwood, Roeger, & Pettijohn, 2012; A. Blackwood, Wing, & Pollak, 2008; Wing, Roeger, & Pollak, 2009).

These figures hide revenue differences between subsectors, however. The arts nonprofit subsector tends to rely more heavily on fee revenue and charitable support in comparison to government funding and investment income. This primary importance of both fee revenue and charitable support compared to the other sources of revenue has remained constant over time (Bowman, 2011b). Moreover, arts organizations maintain diversified sources of revenue over time as well, with a tendency to rely more equally on donative and commercial sources of income (Teasdale, et al., 2013). In 2013, IRS Form 990 Core Financial Files indicate that filing arts nonprofits reported almost $36 billion in total revenue. Approximately 55% of this total revenue came from charitable sources, such as grants from foundations, individual donors, and government support. Program service revenue comprised almost 34% of total revenue whereas investment income made up just under 5% of total revenue for all reporting arts nonprofit organizations. The overall importance of each revenue source, with charitable contributions as the largest source of revenue, followed by program service revenue and investment income, has remained stable over time, according to Form 990s from as early as 2007 (NCCS, 2016).

Although the NCCS Core Files do not allow for a detailed analysis of individual revenue sources, such as government grants and contracts, the Core Files do provide an indication of arts nonprofits' reliance on main revenue sources. Even with the Great Recession of the last decade, reporting arts nonprofits generally maintained their reliance on charitable support and program service revenue. However, a more striking trend is that there were more reporting arts nonprofits in 2009 that reported a combined total revenue that was roughly $5 billion less than in 2007 at

the start of the Great Recession. These figures highlight the financial stringency that the arts nonprofit subsector experienced during the Great Recession, which certainly impacted the financial health of arts nonprofits. The financial stringency of the Great Recession undermined the operations of arts nonprofits that cut expenses, operated with deficits, and generally struggled to survive (Cunniffe & Hawkins, 2016). These difficulties for arts nonprofits still receive media attention today, indicating that the financial struggles are still a concern for the subsector (e.g., McCambridge, 2017). Of course, even though the struggling organizations received a bulk of the media attention during the Great Recession and present day, there are others that are able to persevere. That said, why are there differing levels of financial health for arts nonprofit organizations? I turn to open systems and nonprofit finance theories to help answer this question.

## Open Systems Framework

Nonprofit financial differences can be explained by utilizing the open systems view of organizations. Originating from the fields of physics and biology, the open systems view posits that organizations interact with their environments to transform inputs into organizational outputs (Kast & Rosenzweig, 1972; Von Bertalanffy, 1950a, 1950b). In other words, organizations import resources from the environment in order to be able to export goods and services back into the environment (Hatch & Cunliffe, 2006). In contrast, a closed systems view of organizations asserts that organizations do not have any sort of interaction with others and nothing goes in or out of the system in which an organizational entity operates (Von Bertalanffy, 1950b). In an open systems view, organizations are thusly a part of social systems in which competition for resources, and ultimately survival, occurs (Etzioni, 1960; Yuchtman & Seashore,

1967). As Scott (1992, p. 20) states, "No organization is self-sufficient; all depend for survival on the types of relations they establish with the larger systems of which they are a part."

According to the open systems perspective, an organization's environment can contain several elements considered to be organizational stakeholders and/or competitors. In turn, these elements belong to different sectors, including: the social sector, which includes population demographics; the political sector; and the economic sector, which includes other markets, unemployment, and investment risks (Hatch & Cunliffe, 2006). See Figure 1 for a simplified depiction of the nonprofit and its environment.

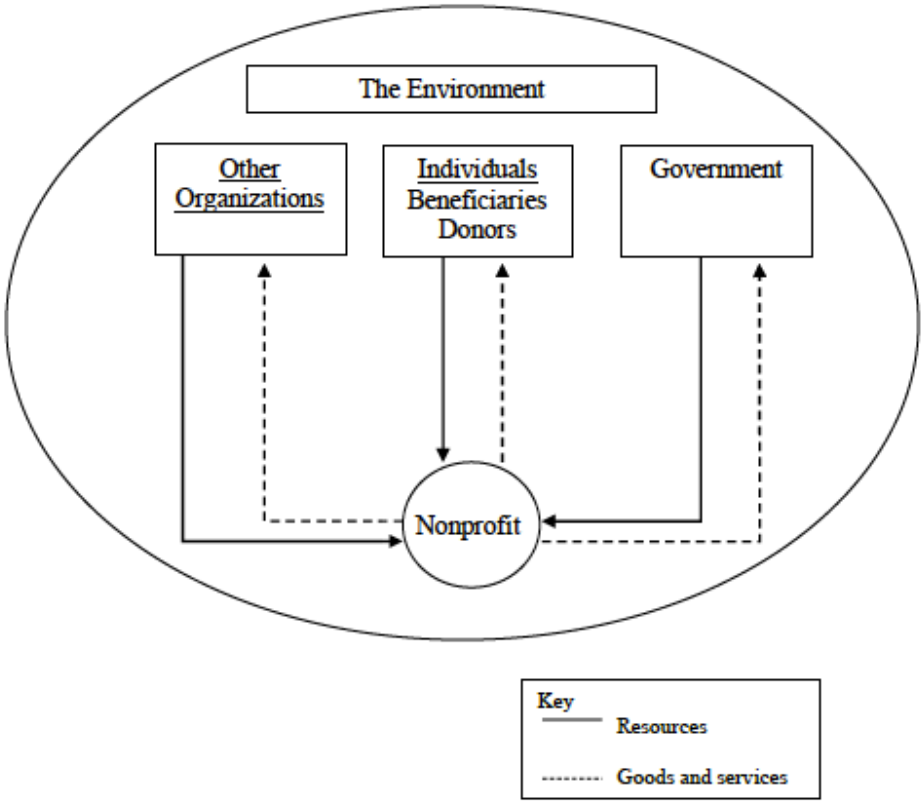


Figure 1 Nonprofit Organization and its Environmental Elements*

*Adapted from Hatch and Cunliffe (2006)

Another way to explain this concept in which an organization interacts with these different elements is to conceive of organizations as social actors (King, Felin, & Whetten, 2010). And as an actor, organizations are susceptible to processes that are akin to human social actors, such as intentional decision-making, birth, aging, and death (King, et al., 2010).

## Nonprofit Finance Theories

The literature on nonprofit finance draw on an open systems framework, either explicitly or implicitly. For instance, the two most common theories of resource dependency and portfolio theory assert that nonprofit organizations should seek diversified sources of revenue from the external environment because diversification is associated with lower organizational and financial risks.

### *Resource Dependency*

The theory of resource dependency is based on an open systems view. According to this theory, organizations import scarce resources from the external environment, as the open systems framework asserts (Pfeffer & Salancik, 1978). Because organizations interact with the environment, which includes elements such as funders or those that control other resources, overreliance on a single funder can have detrimental consequences for organizational survival (Carroll & Stater, 2009; Hodge & Piccolo, 2005). Whether or not an organization has resource dependence depends on the extent to which the resource is critical to the organization's ability to operate and produce goods and services (Pfeffer & Salancik, 1978). Depending on a limited number of funders can impact financial health because there may be organizational instability if

there are changes in the external funding environment, such as variations in the amount of resources or policy changes (Froelich, 1999; Verbruggen, Christiaens, & Milis, 2011).

*Portfolio Theory*

Portfolio theory provides an additional framework to analyze income portfolios. Income portfolios that rely on varying proportions of different revenue sources have different levels of risk because each of the sources have different levels of predictability associated with it. Risk, which is one of two crucial characteristics of income portfolios, can be both systematic and unsystematic (Ballentine, 2013; Markowitz, 1952). Systematic risk is that which cannot be eliminated because the risk is due to market-wide or macro-economic causes that all revenue sources experience. In contrast, unsystematic risk refers to risk that is experienced by a specific set of assets or revenue sources (Mangram, 2013). The other important characteristic is the expected return of the income portfolio, or the probable amount of revenue that a given income portfolio will yield (Mangram, 2013). The nonprofit organizational equivalent of expected return is the level of services that may be provided, while the nonprofit equivalent of risk is unexpected, or unpredicted, changes in revenue streams (Kingma, 1993). In other words, revenue streams with high risk are those income sources that lack predictability.

Portfolio theory asserts that the ideal income portfolio composition is one that minimizes variance or risk and maximizes expected return (Markowitz, 1952). And although portfolio theory does not denounce revenue concentration completely, the theory asserts that most efficient income portfolios that yield the highest returns with the lowest risks are those that are diversified (Mangram, 2013; Markowitz, 1952). Resource dependency theory also asserts that revenue diversification is desirable because diversification enables organizations to be less

susceptible to changes in a small number of funders. Both of these theories fall into an open systems framework because the theories hinge on the idea that organizations interact with external elements that provide more or less predictable or risky funding sources. Whether using resource dependency or portfolio theory as the theoretical framework, most nonprofit research defines the lack of diversification as revenue concentration. Oftentimes, studies measure the level of revenue concentration by calculating the Herfindahl-Hirschman Index (HHI), which is the sum of the squares of the proportion of each revenue source (Chang & Tuckman, 1994). Revenue concentration is included as an independent variable in numerous studies of nonprofit finance, which tend to reveal that diversification has positive implications for nonprofit financial health (e.g., Chang & Tuckman, 1994; Mayer, et al., 2014).

## Conceptualizations of Nonprofit Financial Health

Although previous studies on nonprofit finance have the tendency to draw on resource dependency and portfolio theories, the studies define financial health differently. Consequently, it is important to understand the main conceptualizations of financial health and how they are related to nonprofit strategies and organizational characteristics. The main definitions of financial health are: survival, organizational growth, and financial vulnerability.

### *Organizational Survival*

Perhaps the most basic indicator of nonprofit financial health is whether a nonprofit can stay open. Survival indicates that a nonprofit is healthy enough to be able to meet financial obligations and provide services. Unfortunately, nonprofit survival is difficult to measure because nonprofits are not required to submit notice of closure, although organizations must

register with the IRS in order to receive tax-exempt status (IRS, 2016c). As a result, perhaps the most approximate and available measure is the number of nonprofits that receive automatic revocations of their tax-exempt status for not filing required information returns for three years in a row (IRS, 2017b). In 2011, the first year that the IRS began this practice, there were roughly 248,000 501(c)(3) organizations that had their tax exempt status automatically revoked (GuideStar, 2012). More recently, almost 30,000 and over 28,000 501(c)(3) organizations received automatic revocations in 2016 and 2015, respectively (IRS, 2017a).

There are few empirical studies of nonprofit organizational closure. The existing research does find that financial and other organizational characteristics, such as funding, age, and size, are related to nonprofit survival. Supporting the idea that revenue diversification benefits nonprofit financial health, nonprofits with more diverse funding sources tend to be less likely to close (Bielefeld, 1994; Hager, 2001). There may be more complicated dynamics between revenue diversification and survival based on funding source or organizational characteristics, however. Relying on private revenue increased chances of closing while obtaining public funds can bolster chances of survival for some organizations (Chambre & Fatt, 2002; Fernandez, 2008; Froelich, 1999). At the same time, other research finds that government support increases the likelihood of closure (Hager, Galaskiewicz, & Larson, 2004). Generally, younger and smaller nonprofit organizations tend to have lower survival rates (Bielefeld, 1994; Hager, et al., 2004; Harrison & Laincz, 2008; Twombly, 2003; E. T. Walker & McCarthy, 2010). The negative relationship between age or size and survival may be lessened by obtaining certain funding sources, however, since there is no difference in the survival of younger and older nonprofits that receive public support (Hager, et al., 2004).

The few studies that do exist were conducted prior to automatic revocations by the IRS, so they use different approximations of survival. For these studies, scholars generally had to determine whether organizations that filed Form 990s in a given year stopped filing in all subsequent years of the study duration (e.g., Hager, 2001; Twombly, 2003). However, this metric may only be a partial measure of nonprofit closure because organizations can merge with other entities or change status from 501(c)(3) to another organizational form. The difficulties associated with measuring nonprofit survival may contribute to the greater prevalence of nonprofit research using quantitative measures of financial health such as growth and volatility.

*Organizational Growth*

Another measure for nonprofit financial health is growth. Growth is a sign of financial health because it means that the nonprofit can keep up with increases in expenditures or demand for services. Furthermore, growth indicates organizational capacity that allows nonprofit organizations to weather any unexpected shocks or threats to revenue or operations in general (Bowman, 2011b; Chikoto & Neely, 2014). Previous research defines organizational growth in a number of different ways. Growth can be measured in a number of different ways. Previous studies typically operationalize organizational growth as increases in: total revenue, operating margin or surplus, assets, or program expenditures (e.g., Chang & Tuckman, 1994; Chikoto & Neely, 2014; Frumkin & Keating, 2011).

There are a number of studies that indicate that revenue concentration can be used as a strategy for organizational growth. Focusing on a limited number of revenue streams can aid growth because it can allow nonprofits to develop stronger relationships with funders and decrease administrative costs associated with cultivating the revenue sources (Chang &

Tuckman, 2010). Nonprofits that were able to maintain diversified revenue sources from 1998 to 2007 had lower revenue growth, suggesting that there may be some opportunity costs associated with revenue diversification (Teasdale, et al., 2013). In support of this finding, another longitudinal study found that revenue concentration was positively related to revenue growth rates over a five year period (Chikoto & Neely, 2014). Similarly, analyses of a sample of the largest nonprofit organizations revealed that they tended to have more concentrated revenue sources, suggesting that revenue concentration may indeed contribute to organizational growth (W. Foster, Dixon, & Hockstetler, 2003; W. Foster & Fine, 2007; P. Kim & Bradach, 2012). Revenue diversification is also negatively associated with perceived organizational effectiveness, including the ability to increase funding, which has implications for growth (Johansen & LeRoux, 2013).

At the same time, other longitudinal studies do not support the notion that revenue concentration and growth are related. For instance, there may be no significant differences between diversified and concentrated nonprofits in terms of revenue, asset, or program expenditure growth (Frumkin & Keating, 2011). Another study focused on human service nonprofits and community improvement nonprofits in the single state of New Jersey during the Great Recession (Lin & Wang, 2016). The authors of this study found that nonprofits that had diversified revenue sources did not have any advantages in terms of increasing revenue or expenditures. Having a more concentrated income portfolio may also be negatively associated with increases in operating margin and total revenue, so the relationship between revenue concentration and growth is unclear (Chang & Tuckman, 1994; Wicker & Breuer, 2014).

Organizational characteristics are also associated with growth. Larger nonprofits typically have higher growth rates compared to smaller nonprofit organizations, even during times of

economic distress (Kingma, 1993; Lin & Wang, 2016; Salamon, et al., 2009). Age is negatively related to revenue and expenditure growth during the recession among human service nonprofits in New Jersey, suggesting that liability of senescence may occur during economic downturns such as the last decade's recession (Lin & Wang, 2016). The activity field of nonprofit organizations may have no relationship with growth, however. For instance, the positive role of revenue concentration on organizational growth extends across activity field, as supporting studies were conducted on advocacy organizations, human service nonprofits, arts organizations, and other activity fields (Chikoto & Neely, 2014; Teasdale, et al., 2013). Other characteristics and activities like strong leadership and governance, as well as conducting program evaluations, can also aid growth (Kimberlin, Schwartz, & Austin, 2011).

*Financial Vulnerability*

A common method of capturing nonprofit financial health is by measuring the organization's vulnerability. In studies that examine financial vulnerability, a nonprofit that is likely to cut its program service expenditures after experiencing a financial shock is a nonprofit that is vulnerable (e.g., Tuckman & Chang, 1991). Vulnerability implies a lack of stability because the organization is at risk of not being able to maintain certain levels of service provision. Financial vulnerability also has implications for organizational survival and mission achievement. Studies of nonprofit financial vulnerability generally draw on three main methods of operationalizing the concept: a dichotomous variable for whether an entity has experienced reductions in either expenditures or fund balances, revenue volatility, and a financial vulnerability index that combines multiple financial measures.

Reduction in Expenditures or Fund Balances

Another method of conceptualizing financial vulnerability is whether a nonprofit cut expenses or fund balances for a period of at least three years. Reducing either of these in multiple, consecutive years suggests that the nonprofits do not have the means to maintain levels of service delivery. In one study that utilizes both financial information of human service nonprofit organizations and demographic data, the racial makeup of a census tract as well as size are correlated with whether human service nonprofit organizations experienced reductions in organizational expenses over a three-year period (Never, 2014). Minority population and diversity are positively correlated with financial vulnerability during the three years preceding the Great Recession as well as during the downturn. The correlation is stronger during the recession, indicating that human service nonprofits in areas with greater minority populations suffer greater consequences.

Size, measured as total revenue and number of employees, is positively correlated with financial health when calculated as reductions in expenditures during recessionary and non-recessionary years, although the correlation for the 2007 to 2009 time period weakens. Financially vulnerable organizations that cut expenses or fund balances for three years in a row share other similar financial characteristics. They tend to have lower equity ratios, less diversified income portfolios, lower operating margins, and lower administrative expenditures (Greenlee & Trussel, 2000; Trussel, 2002). These findings confirm Tuckman and Chang's (1991) rationalization for including these criteria in their financial vulnerability index. Size is also negatively associated with financial vulnerability when conceived of as financial reductions (Trussel, 2002).

Revenue Volatility

Revenue volatility is another means of analyzing the financial health of nonprofit organizations. Volatility can also be thought of as the lack of revenue stability, since an organization that experiences volatility is an organization whose revenue does not meet expected levels (Kingma, 1993). Volatility can threaten nonprofit service delivery if yearly revenue may not meet expenditure requirements. Kingma (1993) calculated revenue volatility as the variance of the percent change in expected revenue for one, two, and four previous years for his study of foster care nonprofits located in New York. He found that equity ratio, revenue concentration, administrative expense ratio, and operating margin may be negatively related to financial health when conceived of as volatility.

Revenue concentration may or may not be related to revenue volatility. Some studies indicate that having more concentrated income portfolios is positively related to experiencing revenue volatility (Carroll & Stater, 2009; M. Kim, 2017; Mayer, et al., 2014; Wicker, Longley, & Breuer, 2015). This finding confirms the results of studies that use survival and growth as measures of financial health. However, Kingma (1993) found that revenue concentration did not have a statistically significant relationship with revenue volatility, contradicting these results. A key difference between these studies may be that the Kingma study examines a specific subsector of nonprofit organizations: foster care nonprofit organizations in the single state of New York. In contrast, the other studies typically study nonprofit organizations that represent entire NTEE sub-categories, such as the arts, as well as organizations across the United States. This may indicate that geography and activity field are related to financial health, conceived of as revenue volatility as well. Indeed, arts nonprofit organizations and urban nonprofits are more and less susceptible to experiencing volatility, respectively (Carroll & Stater, 2009).

Another interesting finding is that nonprofit organizations that are classified as being donative, or having more than 50% of total revenue derived from charitable sources, experience greater revenue volatility (Carroll & Stater, 2009; Khieng & Dahles, 2014; M. Kim, 2017). Government support can also contribute to revenue volatility (Khieng & Dahles, 2014; Wicker, et al., 2015). The findings that specific revenue streams can contribute more or less to experiencing volatility supports the idea that different revenue sources do indeed have different characteristic such as autonomy and predictability. Predictability is the reliability of the revenue source from year to year while autonomy is the extent to which an organization has operating freedom (Pratt, 2004). According to this schema, potential nonprofit revenue sources have varying levels of predictability and autonomy. For instance, foundation giving tends to have low predictability and autonomy. Endowments, however, provide high predictability, but low autonomy due to the restrictions associated with endowments (Bowman, 2011b). Empirically, researchers have found that charitable contributions have high volatility, although reliance on this revenue stream may enable nonprofits to better weather economic shocks compared to nonprofits that relied more heavily on government or fee income (Carroll & Stater, 2009; Froelich, 1999; Hodge & Piccolo, 2005). Government revenue, in contrast, has low volatility, but can infringe on organizational autonomy due to the reporting and professionalization required by government grants and/or contracts (Besel, Williams, & Klak, 2011).The differing levels of autonomy and predictability that these revenue sources have yield varying implications for nonprofit financial health and volatility.

Financial Vulnerability Index

The studies that utilize indices to capture financial vulnerability are based on Tuckman and Chang's (1991) index that incorporates four criteria. Their index includes an organization's equity ratio, revenue concentration, administrative expense ratio, and operating margin. Financially healthy nonprofit organizations are those that have strong equity to borrow in times of need, or have liquid and illiquid assets that they can draw on when necessary. Revenue concentration is often thought of as an indicator of financially unhealthy nonprofit organizations because shocks to key funding sources cannot be offset by other sources of revenue. Also according to Tuckman and Chang (1991), financially vulnerable nonprofit organizations have low administrative expenditures and low operating margins. These organizations are unable to cut down on non-essential expenses or use surplus during financial difficulties. The index is meant to convey the ability of nonprofit organizations to weather financial setbacks (Greenlee & Tuckman, 2007).

Indices used by other scholars include additional financial criteria beyond the four included in Tuckman and Chang's index. For instance, Hodge and Piccolo's (2005) study of human service nonprofits combined debt ratio, revenue concentration, surplus, administrative cost ratio, and size into an index. Some analyses have utilized other indices that incorporate additional criteria such as retained earnings, assets, and liabilities (Keating, Fischer, Gordon, & Greenlee, 2005; Tevel, Katz, & Brock, 2015). These studies suggest that geography or culture may influence the relevancy of these different indices in predicting financial vulnerability. In their domestic study, Keating Fischer, Gordon, and Greenlee (2005) found that the Ohlson index that is used to analyze private sector bankruptcy with nine financial criteria has the highest explanatory power in explaining nonprofit financial vulnerability. A different study that

examined nonprofit organizations in Israel, however, found that the Ohlson index did not significantly explain financial vulnerability and that Tuckman and Chang's simpler index of four criteria performed better (Tevel, et al., 2015).

One commonality of these different studies, however, is that revenue stream is related to financial vulnerability. For instance, privately-funded nonprofit organizations tend to have greater financial health whereas publicly-supported nonprofit organizations supported by government funds have lower financial health (Hodge & Piccolo, 2005, 2011; Tevel, et al., 2015). This may be related to the different characteristics associated with specific revenue sources, such as the predictability and autonomy that describes each funding stream. Other common findings across the studies are that organizational characteristics are related to the financial vulnerability of nonprofit organizations. Larger nonprofits have lower vulnerability (Carroll & Stater, 2009; Tuckman & Chang, 1991). Greater board involvement as well as board size are also negatively associated with financial vulnerability (Hodge & Piccolo, 2011).

## Summary

Previous studies examining nonprofit financial health utilize the open systems framework and have in common a focus on inputs from the environment, such as financial resources from individual and institutional funders. There is also a focus on organizational outputs to the environment, since service provision is hindered by poor financial health, whether it is conceived of as organizational survival, growth, or financial vulnerability. The overall findings of previous research indicate that financial characteristics such as the level of revenue concentration, the type of funding source that is dominant, and size are associated with financial health. Other organizational characteristics such as leadership and governance, as well as location, may also

influence the financial health of nonprofit organizations. However, there should be a greater discussion and empirical research of how specific nonprofit strategies are related to financial health, in particular for arts nonprofit organizations that may be more susceptible to experience lower financial health and are not studied as frequently as human service nonprofit organizations. With the chapters that follow, I intend to accomplish this task and ascertain the relationship between the additional theories of benefit-revenue alignment, organizational ecology, and collaboration and the financial health of arts nonprofit organizations.

# CHAPTER III BENEFITS THEORY

## Introduction

Arts nonprofit organizations are typically seen as mission driven rather than profit driven organizations (Ivey, 2008). Even the definition of nonprofit organizations set forth by the Internal Revenue Service states that nonprofit organizations have an exempt purpose, such as the provision of charitable or educational activities, implying a mission focus (IRS, 2016a, 2016b). Challenges to the financial health of arts nonprofit organizations can negatively impact their abilities to meet their exempt purposes. For instance, during the Great Recession, arts nonprofits faced increased demand for services while experiencing reductions in funding. Two different studies found that 45% of arts nonprofits operated with a deficit, yet 54% of a sample of arts nonprofits faced increased demand for services in 2009 (Kushner & Cohen, 2013; n.a., 2012a). Without adequate funding, organizations can be unable to provide the programs and services that go towards mission attainment. Although funding and mission are logically related, the relationship between the two concepts and with the financial health of arts nonprofit organizations has not yet been studied.

In this chapter, I describe the benefits theory of nonprofit finance, which asserts that the type of benefits that a nonprofit provides with its services are connected to the revenue sources that the nonprofit can take advantage of. I then describe the survey sample and methodology I use to conduct a preliminary exploration of the relationship between benefits, financing, and financial health. I find that studying the benefits that arts nonprofits provide is limited due to the difficulties associated with defining and identifying benefits, but I also find that although there is

preliminary indication that matching benefits and revenue can positively impact financial health, organizational slack may be a more important factor impacting financial health.

## Literature Review

The connection between nonprofit mission and financing is clearly explicated by the benefits theory of nonprofit finance. Benefits theory posits that missions drive nonprofit financing because mission determines the types of services or benefits provided. In turn, different revenue streams support particular benefits (Young, 2007). A nonprofit's mission determines the type of benefits that the organization provides to its constituents (Young, 2007). The categorization of these benefits is based on the rivalry and excludability of the goods or services. If a good or service is rival, once the good or service is enjoyed by an individual, the same good or service cannot by enjoyed by another individual, whereas a nonrival good or service can be consumed by multiple individuals at the same time (Weimer & Vining, 2011). An excludable good or service can be controlled by an individual through property rights or payments, meaning that a person who has not paid for the good or service or does not have legal ownership of the good cannot enjoy the good or service. Alternatively, if a good or service is nonexcludable, an individual is not able to control its use or enjoyment by others (Weimer & Vining, 2011).

Private benefits are those that are rival and excludable, meaning that once an individual consumes a private benefit-providing good or service, it can no longer be enjoyed by another (Samuelson, 1954). Examples of private benefits include a seat at a show or in a class. Once the seats are taken, no one else can sit in the seats, and individuals can be prevented from taking the seats if they are priced out. Public benefits, on the other hand, are nonrival and nonexcludable,

such that one individual's enjoyment of the public good can be enjoyed more than once and another individual's enjoyment of the public benefit-providing good or service cannot be prevented (Samuelson, 1954). Examples of a public good are clean air or public art in a town square. These goods are public because multiple individuals or beneficiaries can benefit from clean air or public art at the same time, and they can continue to be enjoyed as well.

According to benefits theory, the combination of private and public benefits that a nonprofit provides determines the contents of the nonprofit's income portfolio. Private benefits are associated with fees or earned income since individual consumers of private benefits are willing to pay to enjoy them (Young, 2007). For instance, theatergoers pay for their seats, as do students of higher education. Next, since broader publics or communities enjoy public benefits, governments as well as individuals who feel strongly for the public benefits support the provision of these goods. In the case of public art, there is a long-recorded history of government support of the arts as well charitable contributions from individuals, foundations, and corporations (n.a., 2000, 2012b).

Although benefits theory is a relatively new theory to explain the financing of nonprofit organizations, there is growing empirical support for the theory. For instance, there are stable differences in overall reliance on charitable contributions and earned income or fee revenue by nonprofit subsector over time. Arts nonprofits, for example, tend to rely on earned income and charitable contributions (Bowman, 2011b; Teasdale, et al., 2013), which can speak to the private and public benefits that arts programs can provide. Additionally, scholars have found that nonprofits that provide private benefits tend to have greater proportions of earned income compared to public benefit-providing nonprofits (Fischer, et al., 2011). Funding sources are also related to organizational spending, with earned income positively associated with spending on

private benefits, and charitable contributions and governments positively associated with spending on public benefits (Wilsker & Young, 2010). Increases in charitable contributions are also positively related with increases in citizen engagement activities, whereas government revenue and political advocacy activities are positively related (Moulton & Eckerd, 2012). These activities can be seen as private and public benefit-providing activities, respectively, since they deal with individual citizens or broader publics. Although benefits theory does not directly identify open systems as an overarching framework, benefits theory implies an open systems view since nonprofit revenue streams are influenced by external relationships with different categories of funders who support public and/or private activities.

Overall, benefits theory contrasts with resource dependency and portfolio theories. These theories recommend that nonprofits diversify their income portfolios or increase their reliance on commercial revenue to manage the risks involved with relying on a single source of funding or the instability of particular revenue sources (Carroll & Stater, 2009; Froelich, 1999). The motivating force behind income portfolio composition according to benefits theory is much more basic than these other approaches affirm. Although there are internal and external factors to consider, such as human capital constraints, time constraints, risk management, and so on (Bowman, 2011b; Young, 2007), it is ultimately the mission that drives an organization's revenue streams. In fact, examination of the financial strategies of 144 nonprofit organizations that had at least $50 million in annual revenue yielded the finding that most of these nonprofits concentrated on a single source of revenue that matched their mission and beneficiaries (W. Foster & Fine, 2007). Taken together, there is growing support that not only do certain revenue sources correspond with public and private benefits or expenditures, but that strategically matching benefits with appropriate revenue sources encourages organizational viability. Does

this imply that nonprofit organizations that match their benefits and services to corresponding revenue sources are financially healthier?

Taking the above literature into consideration, I propose that nonprofits that matched benefits with revenue sources, or had benefit-revenue alignment, are financially healthier than nonprofits that did not. More specifically, using benefits theory's public and private categorization of benefits, I propose:

> Hypothesis 1: Nonprofit arts organizations that have benefit-revenue alignment have better financial health compared to nonprofit arts organizations that do not have benefit-revenue alignment.

This key hypothesis has two sub-hypotheses:

> Hypothesis 1a: Arts nonprofits that provide public benefits and are supported by government revenue and charitable contributions have better financial health than their counterparts that are not supported by government revenue and charitable contributions.
>
> Hypothesis 1b: Arts nonprofits that provide private benefits and are supported by fee revenue have better financial health than their counterparts that are not supported by fee revenue.[1]

## Data

I use both primary and secondary data sources for this chapter. The primary data source is an original electronic survey administered during spring 2017. The secondary data sources include the IRS Form 990 financial information. The decision to deploy my own survey was

[1] The original proposal included three sub-hypotheses, with the third sub-hypothesis being that mixed nonprofits with diversified revenue had better financial health. However, this version omits the third sub-hypothesis because only 19 organizations in the sample are mixed. Running statistical analyses on the mixed observations omitted the key independent variable in the analysis due to collinearity.

primarily driven by the lack of existing data on the types of benefits that arts nonprofits provide. The survey will provide a first attempt at identifying the benefits that nonprofits provide. As such, the purpose is primarily exploratory. The sample for the survey is drawn from an existing random sample of arts nonprofit organizations using the 2011 IRS Form 990 Core Files.[2] The organizations were randomly selected by first categorizing arts organizations by NTEE code and then selecting every tenth organization.

The original random sample includes contact information for 3,131 arts nonprofit organizations. First, I eliminated 990-EZ and 990-N filers from the list because these forms do not provide detailed financial information. The 990-EZ form is a shortened version of the full 990 that is required of tax-exempt organizations that have annual gross receipts of under $200,000 as well as total assets at the end of the year equaling less than $500,000 (n.a., 2016b). The Form 990-N is an electronic postcard for nonprofit organizations that do not meet the financial thresholds for either the 990 or 990-EZ. 990-N filers are tax-exempt entities that usually receive $50,000 or less in gross receipts each year (n.a., 2017b). In contrast, the financial thresholds for filing the Form 990 are higher. Although the 990-EZ provides some financial information, it does not provide detailed information, such as the amounts of specific asset and liability categories. The only financial information obtained from the 990-N electronic postcard is confirmation that the organization received $50,000 or loss in gross receipts (n.a., 2016a).[3] I also cleaned the contact list by excluding organizations that were not founded before 2008 since the survey questions focus on the years 2008 to 2013. Removing organizations that were founded

[2] I am indebted to Mirae Kim for the sample of arts nonprofits.
[3] In 2008, exempt organizations with gross receipts of at least $1 million or total assets of at least $2.5 million were required to file IRS Form 990s. In 2009 and later, the amount of gross receipts changed to $500,000 and the amount of total assets changes to $1.25 million. In 2010 and later, tax exempt organizations with at least $200,000 in annual gross receipts or total assets of at least $500,000 were required to file Form 990s (n.a., 2015).

in 2008 or later as well as 990-EZ and 990-N filers resulted in a sample size of 1,494 arts nonprofits to be recruited for participation in the online survey.

The e-mail addresses were originally found online and I re-verified the contact information using organizational websites and other publicly available websites such as Facebook and Guidestar to reflect any changes in leadership. When personal e-mail addresses for executive directors, financial directors, creative directors or general managers were not published on websites, I verified the general organization e-mail address or the existence of online contact forms. From the group of 1,494 organizations, 23 were defunct, 7 were miscategorized as arts nonprofit organizations, and 9 organizations were either 990-EZ or 990-N filers. Eliminating these 39 organizations resulted in a final sample of 1,455 nonprofits that I included in the survey sample.

I sent one initial invitation and two reminder e-mails to the 1,455 organizations between February and April 2017 to participate in the survey. The survey was an electronic survey distributed through the online survey platform Survey Monkey. I pretested the questions and the Survey Monkey functionality with local nonprofit practitioners and then conducted a pilot survey using the existing contact information for arts nonprofits that were excluded from the final survey sample before deployment. Primary component analysis of the 19 usable responses indicated that a combination of several factors was appropriate, such as combining shared knowledge about new revenue sources with shared knowledge about existing revenue sources. In total, 7 multiple response questions were condensed for the survey. The revised survey questions can be found in the appendix.

There were 111 respondents to the online survey for a response rate of 7.6%. Of these, 20 respondents are excluded because they did not complete the survey beyond the first question

asking the organization's name. Six organizations were also dropped from the sample because they were miscategorized as 990 filers when they were actually 990-EZ filers, or their 990 returns were unavailable for multiple years of analysis, which prohibited the availability of useful financial information. This resulted in a final sample size of 85 organizations. At most, there are 502 observations for the 2008 to 2013 time period. However, there were multiple organizations that partially completed the survey, resulting in a sample that includes observations for 85 organizations. Cronbach's alpha test scores for theoretically related groupings of questions are 0.72 or above, indicating internal consistency in the survey questions.

I obtained financial data from the IRS Form 990 Core Files from the National Center for Charitable Statistics (NCCS) to create a longitudinal dataset that spans the years 2008 to 2013. Combining the survey responses with Form 990 data reduced the length of the survey and is an attempt to ensure accuracy in the financial information. In order to create a longitudinal dataset, I included the years 2008 to 2013, the most recent year that complete IRS Form 990 data is available. Although I limited the survey sample to full IRS Form 990 filers only, there were some organizations that filed EZ forms for some years. In these cases, I manually looked up the 990 returns, since some organizations still provide detailed financial information as supplements to EZ returns. However, not all organizations provide supplementary information, so there are instances of missing observations. Excluding organizations with incomplete data results in a sample of 391 observations for 85 different organizations.

## Variable Operationalization

### *Dependent Variables*

For this chapter, I use six measures of financial health that capture financial health in the current-term, short-term and long-term time periods. Financial health is calculated using a variety of measures since financial health is a multi-dimensional concept that encapsulates different time periods and corresponding objectives. According to Bowman (2011b), nonprofit organizations want to be able to meet their current obligations in the current term. In the short-term period of one to five years, nonprofits' objectives are to be resilient, while in the long-term, nonprofits seek to maintain services. These objectives encapsulate the different conceptualizations of financial health because financially healthy nonprofits lack volatility and are thusly able to meet obligations rather than cutting back on expenditures, and are able to grow to keep up with inflation or demand for services.

Following Bowman (2011b) and Lam and McDougle (2016), the six measures of financial health are: equity ratio, return on assets, months of spending, mark up, months of liquidity, and change in months of liquidity. Equity ratio and return on assets capture long-term finacnail health. *Equity ratio* yields the fraction of organizational assets that are owned and not paid by debt, since debt can be a liability against financial health. To calculate equity ratio, divide net assets as the end of the year by total assets at the end of the year. An equity ratio of 1.0 means that the organization has no debt while a negative number means that the organization has more debt than it has in assets (Bowman, 2011c). *Return on assets* measures the extent to which net assets are increasing over time. Return on assets is the change in net assets from the beginning to the end of the year, divided by the total assets at the end of the year.

Short-term financial health is captured by months of spending and mark up. *Months of spending* can be conceived of as unrestricted operating reserves that can be used to cover expenditures (Bowman, 2011b). In other words, months of spending refers to the number of months that a nonprofit's financial reserves can cover if the nonprofit were to lose all of its revenue. To calculate months of spending, first divide the difference between unrestricted net assets and equity in property and equity by operating expenditures. Then, this number is multiplied by 12 to obtain months of spending. In business literature, *mark up* is essentially the ratio between the selling price of a good and the cost of making the good (Bragg, 2007). For nonprofit organizations, mark up is a percentage equal to 100% times the sum of the change in unrestricted net assets and depreciation expenses, divided by total expenditures. I originally intended to include status quo mark up as another measure of financial health. Following Lam and McDougle (2016), I instead use the measure, which refers to the amount of cash that is able to maintain the status quo or capital preservation over a long-term period, as a control variable in the model for mark up.

Current-term financial health is measured as months of liquidity and change in months of liquidity. *Months of liquidity* is a measure of liquid assets that can be used to pay obligations and change in months of liquidity is a measure of the growth or decline in months of liquid assets. Months of liquidity is calculated by subtracting current liabilities and temporarily restricted net assets from current assets and dividing this difference by operating expenditures. According to Bowman (2011b), nonprofit organizations should aim for at least one to two months of liquidity in order to meet standard payment schedules for current liabilities. Higher values of months of liquidity indicate that nonprofits are able to cover more months of obligations while negative values means that current assets cannot cover current obligations (Bowman, 2011b, p. 90). The

*change in months of liquidity* is the difference between the months of liquidity in the current year and the previous year. Financially healthier nonprofit organizations have positive changes in liquidity because this indicates their working capital can keep up with operating expenses (Bowman, 2011b). See Table 1 for a more concise summary of the definitions of each dependent variable and their calculations.

*Independent Variables*

I use a dichotomous variable to measure whether a nonprofit organization had *benefit-revenue alignment* over the time period of interest. In the online survey that I deployed, I included questions that asked respondents to identify the percentages of their programs that provided public benefits. Private benefit programs are defined as programs that only serve or benefit specific groups of individuals. For instance, an exhibit or performance open only to members or paid attendees or a workshop that targets specific groups such as youths, elderly, or LGBT qualify as private programming. Public benefit programs are those that serve or benefit communities or larger segments of the population. Public benefit programs can include a smaller geographic focus like a city to a larger national or international focus. Public programs are also those that are not limited to any subsets of populations, but to everyone. Examples of public programs include exhibits or community events that are open to the public or activities with the aim of generally promoting the arts.

I calculated the percentage of programming that provides private benefits by subtracting the percentage of public benefits from 100%. Arts nonprofit organizations providing at least 90% of either private or public benefit providing programs are identified as being private or

Table 1 Financial Health Measures Definitions*

| Time Period | Measure | Calculation | IRS Form 990 Variable |
|---|---|---|---|
| Long-term | Equity ratio | Net assets / Total assets | Total net assets (Part X line 33b)<br>Total assets (Part X line 16b) |
| Long-term | Return on assets | 100% (Change in net assets / Total assets) | Change in net assets (Part X line 33b-33a)<br>Total assets (Part X line 16b) |
| Short-term | Months of spending | 12 (Unrestricted financial assets – equity in Property, Plant & Equipment) / (Spending on operations) | Unrestricted financial assets (Part X line 27b)<br>Equity in PP&E (EOY total accumulated depreciation Part X line 10cb – EOY tax-exempt bond liability Part X line 20b – EOY secured mortgages and notes payable Part X line 23b)<br>Spending on operations (Total expense Part IX line 25a – Total depreciation expenses Part IX line 22a) |
| Short-term | Mark up | 100% (Change in unrestricted net assets + depreciation) / (Spending on operations) | Change in unrestricted net assets (Part X line 27a – Part X line 27b)<br>Depreciation (Part IX line 22a)<br>Spending on operations (Total expense Part IX 25a – Total depreciation expenses Part IX 22a) |
| Current-term | Months of liquidity | 12 (Nonprofit current assets – current liabilities – temporarily restricted net assets) / (Spending on operations) | Current assets (Total cash Part X line 1b + savings and temporary cash investments Part X line 2b+ Net pledges and grant receivable Part X line 3b + Net accounts receivable Part X line 4b + Inventories for sale Part X line 8b + Prepaid expenses and deferred charges Part X line 9b)<br>Current liabilities (Accounts Payable Part X line 17b + Grants Payable Part X line 18b + Deferred revenue Part X line 19b + Escrow or custodial account liability Part X line 21b)<br>Temporarily restricted net assets (Part X line 28b)<br>Spending on operations (Total expense Part IX 25a – Total depreciation expenses Part IX 22a) |
| Current-term | Change in months of liquidity | (Months of liquidity, year t) – (Months of liquidity, year t – 1) | See months of liquidity above |

*Adapted from Lam and McDougle (2015)

public benefit arts nonprofits, respectively. Mixed benefit providing arts nonprofits are those that state that between 40% and 60% of their programs are private and public benefit programs. These percentages are drawn from previous literature that defines diversified income portfolios as those that draw from 40% to 60% of total revenue from commercial sources (Teasdale et al., 2013). Organizations that drew 90% or more of total revenue from either public or private sources are considered to be public or privately funded organizations, respectively. Private sources of funding are defined as commercial or earned revenue while public sources of funding include both charitable contributions and government funds. Private funding is the sum of program service revenue (Part VIII Line 2g, net income from fundraising events not categorized as charitable contributions (Part VIII Line 8c), and net income from the sales of inventory (Part VIII Line 10c). Public funding is total revenue from federated campaigns, membership dues categorized as contributions, contributions from fundraising events and related organizations, government grants and contracts, and other charitable sources (Part VIII Line 1h).

Organizations are coded as having benefit-revenue alignment if the range of percentages of public and/or private programs matches the range of percentages of public and/or private sources of revenue, respectively. For example, an arts nonprofit that identifies that public programming accounts for 90% of its program offerings and has public support equaling 90% of total revenue will be categorized as having benefit-revenue alignment. The value will be zero for those organizations that did not have benefit-revenue alignment during the time period of analysis. As stated above, previous research uses 40% to 60% and 90% or more as the percentages of revenue that identify diversified or mixed, and purely private or publicly funded nonprofits. However, these percentages exclude organizations that fall outside of these ranges and draw on public or private support for between 60% and 90% of total revenue. These

organizations will still be included in my analysis in order to assess the sensitivity of the percentages and determine how stringent and less stringent measures of publicly and privately-funded organizations impact the findings. In total, I calculated benefit-revenue alignment using 90%, 85%, 80%, and 75% thresholds for coding organizations as public or private. I also used different classifications of mixed benefit-revenue alignment by categorizing mixed arts nonprofits as those that provided between 35% and 65% of public benefits. This is the first study at the time of writing that has asked organizations directly to identify the levels of public and private programming that their organizations provide. Consequently, this research is largely exploratory and although this operationalization can be refined and improved upon greatly, it can still provide insights into the connection between programming and financial health.

*Control Variables*

I include a number of control variables in the analyses, including *public and private benefit* statuses since public, private, and mixed-benefit organizations may differ in their general spending (Wilsker & Young, 2010). I include two dichotomous variables with one representing public benefit providing arts nonprofits and the other representing private benefit-providing organizations. I also include *status quo mark up* as a control variable for regression models with mark up as the outcome variable. The variable is calculated as 3.4% times total assets divided by spending on operations (Bowman, 2011b). The value of a nonprofit's status quo mark up indicates its ability to achieve a return on assets that will keep up the long-run rate of inflation. Other control variables include: organizational size, revenue diversification; age; surplus; debt ratio; investment income; subsector; and year. See Table 2 for the definitions of the chapter-specific independent and control variables.

Table 2 Hypothesis 1 Independent and Control Variable Definitions and Measures

| Variable Type | Concept | Definition | Data Source |
|---|---|---|---|
| Independent | Benefit-revenue alignment | Dichotomous variable<br>• 1 if benefits matched revenue<br>• 0 otherwise | Survey |
| Control | Public benefit nonprofit | At least 90% of programs provide public benefits | Survey |
| Control | Private benefit nonprofit | At least 90% of programs provide private benefits | Survey |
| Control (reference group) | Mixed benefit nonprofit | 40% to 60% of programs provide private benefits | Survey |
| Control | Status quo mark up | Total assets (Part X line 16b)<br>Spending on operations (Total expense Part IX 25a – Total depreciation expenses Part IX 22a) | IRS Form 990 |
| Control | Organizational size | Natural logarithm of total assets | IRS Form 990 |
| Control | Revenue diversification | Sum of squares of the proportions of public support, earned revenue, investment income, and other | IRS Form 990 |
| Control | Age | Current year less rule year | IRS Form 990 |
| Control | Surplus | Total revenue less total expenses, divided by total revenue | IRS Form 990 |
| Control | Investment income | Natural logarithm of total investment income | IRS Form 990 |
| Control | Performing arts or museum | Dichotomous variable<br>• 1 for performing arts and museums<br>0 for other arts nonprofits | IRS Form 990 |
| Control | Debt ratio | Total liabilities divided by total assets | IRS Form 990 |
| Control | Year | Dichotomous variable for each year in the analysis | IRS Form 990 |

*Organizational size* is the natural logarithm of total assets. Measured in this way, size has been found to be related to financial vulnerability (e.g., Keating, et al., 2005; Trussel, 2002). *Revenue diversification* may be related to higher survival rates among nonprofits (Chambre &

Fatt, 2002; Crittenden, 2000; M. K. Foster & Meinhard, 2005; Hager, 2001; Trussel, 2002). Revenue diversification is calculated using the Herfindahl-Hirschman Index. The revenue categories used to calculate the revenue diversification index are public support, private support, investments, and other revenue. Public and private support are the same totals determined by the calculations for the benefit-revenue alignment independent variable, explained above, with public support being total contributions and private support being the sum of program service revenue, net fundraising income, and net income from sales of goods. Investment income is total revenue from investments, dividends, and interest (Part VIII Line 3). Finally, other revenue is the total amount of revenue not included in the Form 990's other revenue categories (Part VIII Line 11e). Due to the calculation of the index, I use the sum of these sources of revenue to determine the total revenue of each organization. The index score is normalized to range between zero and 100, with 100 representing complete revenue concentration and zero representing complete revenue diversification.

*Age* is the current year less the year of formation listed in the Core Financial Files. Form 990 instructions direct nonprofits to identify the year of legal creation under state law (n.a., 2015). Although this may not capture the true age of a nonprofit since some may be in operation before incorporating, year of incorporation is the closest approximation available on Form 990s. Younger organizations may have similar difficulties as smaller organizations when participating in collaborations in terms of having a lack of human resources or financial resources to dedicate to partnerships (AbouAssi, Makhlouf, & Whalen, 2016; Gazley, 2010). Age is calculated each year as the fiscal year less the IRS ruling year. I also include *surplus* as a control variable, or total revenue less total expenses, divided by total revenue. Surplus can impact financial health because surplus accumulations can be used to cover any shortfalls during times of financial

distress (Greenlee & Tuckman, 2007; Trussel, 2002). *Debt ratio*, or total liabilities divided by total assets is a control variable as well. Nonprofit organizations that have more debt have been found to have greater financial vulnerability and be less competitive in the foundation grant marketplace (Ashley & Faulk, 2010; Trussel, 2002). The natural logarithm of *investment income* is another control variable and is the total income from interest, dividends, and other similar sources of income. Although investment income does not yet have an empirically proven relationship with public or private-natured benefits, this source of revenue does reduce financial volatility and increased expected revenue of nonprofits (Carroll & Stater, 2009), which can in turn influence financial health.

Because different arts subsectors tend to rely on revenue sources differently, I also control for subfield by including a dummy variable for whether arts nonprofits are *performing arts or museums*. For instance, in 2013, the most recent year that the NCCS Core Financial Files are available, performing arts and museums in a cleaned dataset had an average of 40% of total revenue derived from program service revenue.[4] In contrast, arts nonprofits in other subsectors relied on program service revenue for an average of almost 30% of total revenue (NCCS, 2013). The final control variable is *year*, which is included in the models as dichotomous variables for each year in the analysis. Including year controls for any broader influences on the dependent variables beyond the economic recession.

## Methodology

For this chapter, I use a combination of statistical analysis methods. First, I conduct a difference of means t-test to ascertain whether there were significant financial health differences

[4] Cleaned dataset excludes nonprofit organizations reporting negative charitable contributions, program service revenue, investment income, and/or total revenue.

between the financial health of arts nonprofits that did and did not align benefits with revenue. Then, I use a combination of survey data and IRS Form 990 financial data to examine how aligning revenue sources with the types of benefits provided is associated with the financial health of arts nonprofits from 2008 to 2013. Fixed effects analysis is appropriate for longitudinal data where there may be unobserved, time invariant characteristics influencing financial health that I am unable to measure with the data (Gardiner, Luo, & Roman, 2009). These characteristics can include organizational factors such as board and executive leadership style, for instance, that may impact financial health. For Hypothesis 1, the Hausman test indicates that fixed effects analysis should be used when the outcome variables are equity ratio, return on assets, months of spending, and mark up. In line with the results of the Breusch and Pagan Lagrange-multiplier test, I conduct random effects panel data analysis when months of liquidity is the dependent variable and pooled regression analysis with year dummy variables when change in months of liquidity is the outcome variable. The tests indicate that pooled regression analysis is appropriate when equity ratio and change in months of liquidity are the dependent variables and random effects for the remaining variables for Hypotheses 1a and 1b.

I conducted propensity score matching to minimize the bias between the arts organizations that had benefit-revenue alignment and those that did not. Ensuring that revenue streams and benefits provided correspond with each other requires that nonprofit organizations analyze their services and income and then use the evaluation to develop their income portfolios. Not including a probability weight to account for the propensity to have benefit-revenue alignment assumes that arts nonprofits in the sample had similar organizational capacity to undergo this type of self-assessment. Research on benefits theory is still limited, so information on the types of nonprofits that are more likely to evaluate their benefits and services is lacking.

Therefore, I conducted propensity score matching based on the characteristics of nonprofits that are more likely to conduct strategic planning. According to literature, nonprofits that are larger, have diversified revenue sources, and have effective governance utilize strategic planning or strategic decision making (e.g., LeRoux & Wright, 2010; Stone, 1989; Verschuere & Corte, 2014). Because the dataset for this research does not include information on governance, I limited the propensity score matching to the following financial characteristics: organizational size, total contributions, earned revenue, and investment income. Because panel data analysis requires that the propensity scores do not vary per organization over the years of analysis, I averaged these financial characteristics. The propensity scores from Mahalanobis matching with three nearest neighbors are included in the regression analyses as probability weights that are calculated as one divided by the propensity score. Fixed effects and pooled regression analyses allow the use of probability weights; however, probability weights are not appropriate in random effects regressions.

The longitudinal dataset used to test all three hypotheses is unbalanced. This means that although I include the years 2008 through 2013 in the dataset, not all organizations have financial information for all six years. Therefore, I use lagged values for continuous independent and control variables in the statistical models to address any potential endogeneity in all regression models. This follows Kim's analysis of an unbalanced data set of arts organizations (2017). As a result, the models include the years 2009 to 2013. Finally, I normalized all financial data in the dataset to the 2013 dollar value using the Consumer Price Index. I also used clustered robust standard errors in the statistical models to address heteroscedasticity and autocorrelation.

Table 3 Hypothesis 1 Summary Statistics for Dependent Variables, 2009-2013

| Variable | Variable Name | Minimum | Median | Maximum | SD | *n* |
|---|---|---|---|---|---|---|
| Equity ratio | ER | -33.575 | 0.869 | 8.045 | 2.294 | 391 |
| Return on assets | ROA | -10.892 | 0.027 | 7.929 | 1.337 | 391 |
| Months of spending | MOS | -189.763 | 3.757 | 650.295 | 46.770 | 391 |
| Mark up | MU | -313.829 | 6.462 | 1256.258 | 156.546 | 391 |
| Months of liquidity | ML | -106.810 | 1.901 | 61.535 | 11.617 | 391 |
| Change in months of liquidity | Change in ML | -65.353 | -0.053 | 108.016 | 8.694 | 391 |

## Summary Statistics

Tables 3 and 4 display the summary statistics for the variables measuring financial health and the independent and control variables in the analysis for this chapter, respectively. Equity ratio for the organizations in the sample range from approximately -33 to 8. Negative values for equity ratio indicate that the organizations have more liabilities than assets and that more assets are financed by debt than owned outright. The arts nonprofits also display a range of values for return on assets that also includes negative and positive values. Return on assets is a measure of profitability, so negative return on assets is not financially healthy since it indicates that the organization is unable to keep up with the long run rate of inflation. The median return on assets is close to zero, so the organizations in the sample were not able to meet Bowman's estimation of a 3.4% inflation rate. Similarly, positive values for months of spending is considered financially healthier because organizations with positive months of spending can cover expenditures even if

Table 4 Hypothesis 1 Summary Statistics for Independent and Control Variables, 2009-2013

| Variable Type | Variable | Variable Name | Minimum | Median | Maximum | SD | *n* |
|---|---|---|---|---|---|---|---|
| Independent | Benefit-revenue alignment | Aligned | 0 | 0 | 1 | 0.278 | 391 |
| Control | Public benefit nonprofit | Public | 0 | 1 | 1 | 0.500 | 391 |
| Control | Private benefit nonprofit | Private | 0 | 0 | 1 | 0.289 | 391 |
| Control (reference group) | Mixed benefit nonprofit | Mixed NP | 0 | 0 | 1 | 0.286 | 391 |
| Control | Nonprofit partner | NP Partner | 0 | 0 | 1 | 0.47 | 386 |
| Control | Status quo mark up | SQ Mark up | -9.582 | 3.760 | 203.945 | 14.263 | 391 |
| Control | Revenue diversification | HHI | 31.789 | 55.862 | 100 | 16.577 | 391 |
| Control | Investment income | LN Inv. Inc. | 0 ($0) | 6.515 ($674) | 13.994 ($1,195,800) | 3.742 | 391 |
| Control | Organizational size | Size | 0 ($0) | 13.275 ($582,290) | 17.587 ($43,435,304) | 1.963 | 391 |
| Control | Surplus | Surplus | -2.221 | 0 | 2.779 | 0.394 | 391 |
| Control | Debt ratio | Debt ratio | 0 | 0.123 | 34.575 | 2.255 | 391 |
| Control | Investment income | LN Inv. Inc. | 0 ($0) | 6.515 ($674) | 13.994 ($1,195,800) | 3.742 | 391 |
| Control | Age | Age | 2 | 24 | 74 | 16.247 | 391 |
| Control | Performing arts or museum | Performing arts or museum | 0 | 1 | 1 | 0.484 | 391 |

they were to experience a significant revenue loss. The range of months of spending in the sample is from almost -190 months to approximately 650 months. The median months of spending, however, is roughly 3.76 months. Mark up has an even wider range of values, with the median value being 6.46. Finally, the two current term financial health variables also include negative and positive values. Months of liquidity values that are less than zero show that organizations are unable to use liquid assets to cover expenditures. The negative median value for change in months of liquidity indicates that there is a meaningful proportion of the organizations in the sample that have declining months of liquidity from year to year.

In the sample, there are more organizations that do not have benefit-revenue alignment and are public-benefit providing organizations than have alignment and are private or mixed-benefit providing arts nonprofits. Since some organizations did not have the full five years of data from 2009 to 2013 available, there are 391 total observations or data points for the 85 organizations over the time period. There are only 44 instances of benefit-revenue alignment occurring when using the 90% distinction for categorizing public and private-benefit providing organizations. There are also more public arts nonprofits represented in comparison to private and mixed benefit providing arts nonprofits. There are 47 public benefit-providing arts entities represented in the sample compared to 10 private and 14 mixed benefit-providing arts nonprofit organizations. Status quo mark up has a wide range, from approximately -9.6 to almost 204, in the sample.

Based on the summary statistics, the organizations in the sample have varying values for the remaining control variables. Size, or the logarithm of total assets, indicate the arts nonprofits reported from zero assets to over $43 million in total assets. HHI, the index measuring revenue concentration, varies between roughly 32 to 100. Thus, although no organizations did not have

Table 5 Hypothesis 1 Correlation Matrix

| | Variables | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | ER[1] | | | | | | | | | | |
| 2 | ROA[1] | 0.34* | | | | | | | | | |
| 3 | MOS[1] | 0.04 | 0.00 | | | | | | | | |
| 4 | MU[1] | 0.07 | 0.30* | 0.06 | | | | | | | |
| 5 | ML[1] | 0.08 | -0.06 | 0.30* | -0.09 | | | | | | |
| 6 | Change in ML[1] | 0.01 | 0.02 | 0.03 | 0.25* | 0.28* | | | | | |
| 7 | Aligned | 0.04 | -0.08 | 0.01 | -0.13* | 0.01 | -0.01 | | | | |
| 8 | Public | 0.05 | 0.09* | 0.26* | 0.10* | 0.01 | 0.05 | -0.10* | | | |
| 9 | Private | 0.02 | 0.04 | 0.02 | -0.04 | -0.05 | -0.03 | 0.24* | -0.33* | | |
| 10 | SQ Mark up | 0.04 | 0.01 | 0.87* | 0.17* | 0.18* | 0.05 | 0.02 | -0.01 | 0.18* | |
| 11 | HHI | 0.00 | -0.05 | 0.01 | -0.11* | 0.05 | -0.02 | 0.32* | -0.13* | 0.17* | -0.06 |
| 12 | LN Inv. Inc. | 0.17* | 0.20* | 0.13* | 0.32* | 0.02 | 0.00 | 0.00 | 0.02 | -0.05 | 0.14* |
| 13 | Size | 0.24* | 0.26* | 0.08 | 0.33* | -0.07 | 0.04 | -0.03 | -0.03 | -0.01 | 0.15* |
| 14 | Surplus | 0.24* | 0.26* | 0.08 | 0.33* | -0.07 | 0.04 | -0.03 | 0.02 | 0.04 | 0.03 |
| 15 | Debt Ratio | 0.02 | 0.17* | 0.04 | 0.10* | -0.09 | 0.12* | -0.06 | 0.02 | -0.05 | -0.01 |
| 16 | Age | 0.12* | 0.13* | -0.01 | 0.22* | -0.16* | 0.01 | -0.17* | 0.06 | -0.03 | -0.00 |
| 17 | Performing arts/museum | 0.09* | -0.01 | -0.05 | 0.10* | -0.13* | -0.02 | -0.20* | 0.08 | -0.02 | 0.01 |

[1]Dependent variable; * p<0.5

Table 5 Hypothesis 1 Correlation Matrix cont'd

| | Variables | 11 | 12 | 13 | 14 | 15 | 16 | 17 |
|---|---|---|---|---|---|---|---|---|
| 11 | HHI | | | | | | | |
| 12 | LN Inv. Inc. | -0.25* | | | | | | |
| 13 | Size | -0.27* | 0.52* | | | | | |
| 14 | Surplus | 0.07 | 0.06 | 0.11* | | | | |
| 15 | Debt Ratio | -0.05 | -0.03 | -0.18* | 0.02 | | | |
| 16 | Age | -0.29* | 0.40* | 0.39* | 0.03 | -0.03 | | |
| 17 | Performing arts/museum | -0.23* | -0.04 | -0.08 | -0.06 | 0.11* | 0.07 | |

* p<0.5

completely diversified revenue, there are organizations that were completely reliant on a single source of income between 2009 to 2013. Next, there are young and more established arts nonprofits in the sample, as can be seen by the age of the nonprofits. A median surplus value of zero suggests that the median respondent in the surplus range had no extra revenue over expenses. The receipt of investment income varied widely as there were organizations that had no investment income at all while some had investment income that reached over $1 million. Approximately 63% of the organizations in the sample are classified as a performing arts nonprofit or museum, which is why the median value for the dichotomous variable is 1. Finally, debt ratio for the study sample is between zero and almost 35. A debt ratio of zero means the organization had no debt while higher values indicate greater debt to assets. Table 5 provides the correlations between the outcome measures and the independent and control variables used in this chapter.

## Results

### *Hypothesis 1*

The t-tests in Table 6 assume unequal variances for all outcome variables excluding return on assets and mark up, as supported by robust tests for equal variances. In the table, the two-tailed p-values show the p-value for the null hypothesis that the means of the two groups, those organizations with and without benefit-revenue alignment, are equal. The results indicate that the mean equity ratio and mean mark up values are unequal. The mean equity ratio for arts nonprofits with benefit-revenue alignment is 0.86 compared to a mean equity ratio of 0.53 for those without alignment. While in this instance, the mean of those with benefit-revenue alignment is higher than those without, the mean mark up of the benefit-revenue alignment group

is negative while the mean mark up is 78.57 for the no benefit-revenue alignment group. These results are significant at the 0.01 significance level. When using a 0.1 significance level, the

Table 6 Difference of Means T-Test Results for Benefit-Revenue Alignment

| Outcome Variable | Mean | | t-value | Two-tailed p-value |
|---|---|---|---|---|
| | No Benefit-Revenue Alignment | Benefit-Revenue Alignment | | |
| ER | 0.526 | 0.860 | -2.974 | 0.003 |
| | (0.107) | (0.035) | | |
| ROA | 0.301 | -0.090 | 1.803 | 0.072 |
| | (0.066) | (0.092) | | |
| MOS | 10.029 | 10.978 | -0.253 | 0.801 |
| | (2.560) | (2.742) | | |
| MU | 78.566 | -1.074 | 2.758 | 0.001 |
| | (8.855) | (12.302) | | |
| ML | 3.221 | 3.759 | -0.470 | 0.634 |
| | (0.556) | (0.999) | | |
| Change in ML | -0.088 | -0.380 | 0.214 | 0.832 |
| | (0.406) | (1.307) | | |
| *n* | 458 | 44 | | |

Standard errors in parentheses

mean return on assets is unequal between the two groups. The mean is lower for those with benefit-revenue alignment than those without benefit-revenue alignment. For the remaining measures of financial health, the difference of means t-test results indicate that the means are not significantly unequal for months of spending, months of liquidity, and change in months of liquidity.

As seen in Table 7, organizations that aligned their benefits and revenue sources had average financial health measures that were higher than their non-aligned counterparts for all financial health outcome variables, excluding months of liquidity. In the models with equity ratio

Table 7 Regression Results for Aligned

| Variables | (1a) ER | (1b) ROA | (1c) MOS | (1d) MU | (1e) ML | (1f) Change in ML |
|---|---|---|---|---|---|---|
| Aligned (90%) | 0.053 | 0.359 | 4.570 | 42.967 | -0.074 | 1.136 |
| | (0.131) | (0.533) | (6.216) | (40.239) | (1.738) | (1.827) |
| SQ Mark up | | | | 1.160 | | |
| | | | | (0.810) | | |
| Public (Reference group: Mixed) | 0.364 | -0.454 | 23.593 | 56.361 | 1.749 | -2.126*** |
| | (0.294) | (0.616) | (21.444) | (106.411) | (1.763) | (0.580) |
| Private (Reference group: Mixed) | -0.166 | -1.613*** | 81.715 | -120.343** | 4.520 | -1.187 |
| | (0.257) | (0.525) | (77.022) | (58.054) | (4.461) | (1.218) |
| HHI | -0.026** | -0.029** | -0.146 | -4.057*** | -0.022 | -0.125** |
| | (0.013) | (0.013) | (0.095) | (1.107) | (0.069) | (0.057) |
| LN Inv. Inc. | 0.030 | -0.076*** | 0.463 | -6.679*** | 0.035 | -0.128 |
| | (0.019) | (0.023) | (0.282) | (2.034) | (0.134) | (0.086) |
| Size | 0.125 | -0.359 | 4.548* | 42.742 | 0.101 | 0.364** |
| | (0.375) | (0.433) | (2.621) | (38.738) | (0.319) | (0.171) |
| Surplus | 0.406 | -1.287** | -17.781 | -94.460** | -1.009 | -4.360 |
| | (0.245) | (0.612) | (15.139) | (39.747) | (2.344) | (3.200) |
| Debt ratio | -0.032 | 0.116 | 0.196 | 2.477 | -0.084 | 0.104 |
| | (0.100) | (0.071) | (0.384) | (7.672) | (0.051) | (0.145) |
| Age | 1.113*** | 0.639*** | 0.444 | -5.355 | -0.140* | -0.012 |
| | (0.101) | (0.080) | (0.481) | (9.208) | (0.079) | (0.015) |
| Performing arts or museum | -0.036 | -0.586 | 2.697 | -53.911 | -2.296 | 0.799 |
| | (0.148) | (0.821) | (6.827) | (39.027) | (1.524) | (0.517) |
| Constant | -35.248*** | -8.711 | -111.673 | -82.928 | 6.882 | 4.185 |
| | (8.994) | (7.995) | (67.666) | (829.055) | (6.517) | (3.225) |
| R-squared | 0.019 | 0.017 | 0.071 | 0.017 | 0.067 | 0.999 |
| Method | FE | FE | FE | FE | RE | Pooled |

*n*=391; Robust standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1
Probability weights used; Years omitted

and return on assets as the dependent variables, aligned organizations had mean equity ratio and return on assets that were 0.05 and 0.36 units higher, respectively, than arts entities that did not have benefit-revenue alignment. The short term financial health measures are also higher for aligned arts nonprofits in the sample, with aligned respondents having an average months of spending and mean mark up that were 4 units higher compared to similar organizations without alignment.The only negative coefficient is in the model with months of liquidity, where aligned organizations had a mean months of liquidity that was 0.07 lower, holding the other variables constant. This is approximately two days less liquidity compared to similar non-aligned arts nonprofits in the sample. Change in months of liquidity, however, bears a positive coefficient for aligned, indicating that aligned nonprofits in the sample had increasing months of liquidity. Although the coefficients indicate that the direction of the relationship between alignment and financial health meets expectations, not including months of liquidity, the coefficients do not reach statistical significance. As a result, while the models do indicate that aligned arts nonprofits generally did have better financial health, the results cannot be generalized beyond the survey sample because the results are not significant. Hypothesis 1 does not receive support using the 90% classification for the public and private nature of the organizations.

Classifying nonprofits as either public or private-benefit providing nonprofit organizations using a 90% threshold is based on the literature (Teasdale, et al., 2013). However, this is a high threshold, so I also ran regression models using less stringent thresholds to identify nonprofit organizations with benefit-revenue alignment. For instance, I categorized the nonprofits in the sample as having benefit-revenue alignment using 85% and 80% thresholds. At the 85% threshold for identifying organizations as public and private and the 40% to 60% for mixed nonprofits, the results are generally similar as in the previous models. As seen in Table 8,

the coefficients for the aligned variable are positive for five dependent variables now, excluding equity ratio, which is negative. However, the coefficients are not significant in these models either. The directions of the relationships and the coefficient sizes between the control variables and the outcome variables are similar using the 90% and 85% distinctions as well.

Utilizing an 80% delineation for public or private nonprofits and the 40% to 60% delineation for mixed nonprofits yields different results for the aligned variable than the previous two classifications. In these models, shown in Table 9, the coefficients indicate that benefit-revenue alignment has a negative relationship with equity ratio, return on assets, months of spending, mark up, and months of liquidity. The coefficient for equity ratio is also significant at the 0.1 significance level. The average equity ratio for arts nonprofits that had benefit-revenue alignment at the 80% classification for public and private nonprofits and 40% to 60% for mixed nonprofits was 0.21 lower than arts nonprofits without benefit-revenue alignment, all else held constant. The directions of these results go against Hypothesis 1 that benefit-revenue alignment and financial health are positively related.

Only when using a broader classification of mixed-benefit providing arts nonprofits is there a positive and statistically significant coefficient for the aligned variable. The models using 90% to classify public and private arts nonprofits and 35% to 65% for mixed arts nonprofits yields positive relationships with equity ratio and months of spending only, whereas the other coefficients display negative relationships between this alignment variable and financial health. The coefficients for the long-term financial health measures are significant, indicating that the mean equity ratio and return on assets of aligned arts nonprofits were 0.21 higher than non-aligned nonprofits, holding all else constant. Having higher equity ratio suggests that aligned nonprofits owned more assets outright in comparison to non-aligned arts nonprofits. The

Table 8 Regression Results for Aligned Using 85% Distinction

| Variables | (2a) ER | (2b) ROA | (2c) MOS | (2d) MU | (2e) ML | (2f) Change in ML |
|---|---|---|---|---|---|---|
| Aligned (85%) | -0.049 | 0.173 | 4.582 | 47.281 | 0.313 | 1.679 |
| | (0.156) | (0.633) | (8.272) | (50.032) | (1.747) | (1.768) |
| SQ Mark up | | | | 1.156 | | |
| | | | | (0.807) | | |
| Public (Reference group: Mixed) | 0.393 | -0.399 | 23.609 | 55.287 | 1.690 | -2.130*** |
| | (0.340) | (0.601) | (20.717) | (108.839) | (1.796) | (0.582) |
| Private (Reference group: Mixed) | -0.169 | -1.619*** | 81.705 | -120.342** | 4.551 | -1.157 |
| | (0.252) | (0.519) | (77.086) | (58.182) | (4.466) | (1.217) |
| HHI | -0.026** | -0.029** | -0.145 | -4.050*** | -0.023 | -0.126** |
| | (0.013) | (0.013) | (0.094) | (1.107) | (0.069) | (0.057) |
| LN Inv. Inc. | 0.030 | -0.076*** | 0.460 | -6.707*** | 0.034 | -0.129 |
| | (0.019) | (0.023) | (0.279) | (2.037) | (0.135) | (0.086) |
| Size | 0.125 | -0.364 | 4.451* | 41.778 | 0.097 | 0.379** |
| | (0.375) | (0.434) | (2.554) | (38.769) | (0.329) | (0.177) |
| Surplus | 0.408 | -1.286** | -17.810 | -94.786** | -1.004 | -4.364 |
| | (0.246) | (0.616) | (15.169) | (39.730) | (2.340) | (3.196) |
| Debt ratio | -0.032 | 0.115 | 0.183 | 2.353 | -0.083 | 0.114 |
| | (0.100) | (0.071) | (0.383) | (7.681) | (0.052) | (0.144) |
| Age | 1.113*** | 0.639*** | 0.432 | -5.478 | -0.138* | -0.011 |
| | (0.101) | (0.080) | (0.475) | (9.218) | (0.080) | (0.015) |
| Performing arts or museum | -0.036 | -0.586 | 2.693 | -53.953 | -2.275 | 0.825 |
| | (0.148) | (0.821) | (6.824) | (39.014) | (1.531) | (0.523) |
| Constant | -35.283*** | -8.664 | -109.735* | -62.362 | 6.966 | 3.954 |
| | (9.042) | (8.081) | (65.793) | (836.601) | (6.650) | (3.168) |
| R-squared | 0.019 | 0.067 | 0.071 | 0.013 | 0.065 | 0.999 |
| Method | FE | FE | FE | FE | RE | Pooled |

*n*=391; Robust standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1
Probability weights used; Years omitted

Table 9 Regression Results for Aligned Using 80% Distinction

| | (3a) | (3b) | (3c) | (3d) | (3e) | (3f) |
|---|---|---|---|---|---|---|
| Variables | ER | ROA | MOS | MU | ML | Change in ML |
| Aligned (80%) | -0.213* | -0.012 | -14.059 | -32.022 | -0.591 | 1.384 |
| | (0.117) | (0.307) | (11.618) | (32.252) | (1.215) | (1.154) |
| SQ Mark up | | | | 1.195 | | |
| | | | | (0.819) | | |
| Public (Reference group: Mixed) | 0.463 | -0.344 | 30.516 | 81.723 | 1.821 | -2.112*** |
| | (0.379) | (0.602) | (26.371) | (112.019) | (1.782) | (0.574) |
| Private (Reference group: Mixed) | -0.076 | -1.619*** | 87.577 | -107.738** | 4.459 | -1.183 |
| | (0.297) | (0.592) | (76.227) | (51.715) | (4.473) | (1.187) |
| HHI | -0.026** | -0.029** | -0.155 | -4.070*** | -0.021 | -0.127** |
| | (0.013) | (0.013) | (0.101) | (1.105) | (0.067) | (0.057) |
| LN Inv. Inc. | 0.030 | -0.076*** | 0.487 | -6.630*** | 0.035 | -0.129 |
| | (0.020) | (0.023) | (0.297) | (2.045) | (0.133) | (0.087) |
| Size | 0.128 | -0.362 | 4.767* | 42.917 | 0.105 | 0.385** |
| | (0.375) | (0.434) | (2.650) | (38.642) | (0.328) | (0.179) |
| Surplus | 0.415* | -1.283** | -17.192 | -92.903** | -1.016 | -4.327 |
| | (0.248) | (0.616) | (14.666) | (39.860) | (2.355) | (3.183) |
| Debt ratio | -0.031 | 0.116 | 0.240 | 2.558 | -0.085 | 0.113 |
| | (0.099) | (0.071) | (0.387) | (7.647) | (0.052) | (0.143) |
| Age | 1.114*** | 0.639*** | 0.514 | -5.212 | -0.142* | -0.012 |
| | (0.101) | (0.080) | (0.507) | (9.194) | (0.080) | (0.015) |
| Performing arts or museum | -0.034 | -0.585 | 2.860 | -53.580 | -2.355 | 0.840 |
| | (0.147) | (0.821) | (6.941) | (39.086) | (1.541) | (0.523) |
| Constant | -35.432*** | -8.771 | -123.973* | -115.341 | 6.883 | 3.906 |
| | (9.019) | (8.079) | (73.062) | (831.743) | (6.528) | (3.148) |
| R-squared | 0.020 | 0.017 | 0.059 | 0.031 | 0.069 | 0.999 |
| Method | FE | FE | FE | FE | RE | Pooled |

*n*=391; Robust standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1
Probability weights used; Years omitted

relationships between this alignment variable and return on assets and change in months of liquidity are negative and significant, however. Arts nonprofits with benefit-revenue alignment were unable to maintain services in the long term or liquidity in the current term. Keeping the 35% to 65% classification for mixed nonprofits and then widening the definition of public or private arts nonprofits to 85% yields similar results, with the addition of having a moderately significant coefficient for months of spending. The mean months of spending for arts nonprofits with benefit-revenue alignment using this distinction is 4.76 higher than those without alignment, ceteris paribus. Table 10 below shows the results for the outcome variables that yielded significant coefficients for the alignment variables.

Overall, Hypothesis 1 does not receive support unless using a less stringent definition of benefit-revenue alignment. More specifically, when mixed benefit-providing organizations are defined as providing between 35% and 65% of public or private programming, the relationship with equity ratio and months of spending is positive. Yet, this same classification yields an inverse relationship between alignment and return on assets as well as change in months of liquidity.

*Hypothesis 1a*

The two sub-hypotheses are that public arts nonprofits that were supported by public revenue streams and private arts nonprofits that were supported by private revenue sources had better financial health during the Great Recession compared to their public or private counterparts that were not supported by the corresponding revenue sources. Table 11 displays the regression results for the models testing Hypothesis 1a. The sample in these models is organizations that had public revenue sources, or the sum of government support and charitable

Table 10 Regression Results for Aligned Using Multiple Distinctions for Benefit-Revenue Alignment and Select Outcome Variables

| Variables | (4a) ER | (4b) ER | (4c) ROA | (4d) ROA | (4e) MOS | (4f) MOS | (4g) Change in ML | (4h) Change in ML |
|---|---|---|---|---|---|---|---|---|
| Aligned (Pub./Priv. 90%; Mixed 35%-65%) | 0.208*** | | -1.064*** | | 4.713* | | -2.653*** | |
| | (0.062) | | (0.205) | | (2.695) | | (0.798) | |
| Aligned (Pub./Priv. 85% Mixed 35-65%) | | 0.206*** | | -1.098*** | | 4.761* | | -2.361** |
| | | (0.070) | | (0.195) | | (2.757) | | (0.897) |
| Public (Reference group: Mixed) | 0.315 | 0.317 | -0.023 | -0.018 | 23.499 | 23.504 | -2.417*** | -2.375*** |
| | (0.313) | (0.317) | (0.509) | (0.544) | (22.079) | (21.885) | (0.610) | (0.622) |
| Private (Reference group: Mixed) | -0.217 | -0.217 | -1.370*** | -1.360*** | 80.446 | 80.424 | -1.528 | -1.508 |
| | (0.250) | (0.253) | (0.372) | (0.378) | (76.306) | (76.312) | (1.204) | (1.216) |
| HHI | -0.026** | -0.026** | -0.026* | -0.026* | -0.156 | -0.155 | -0.120** | -0.120** |
| | (0.013) | (0.013) | (0.014) | (0.014) | (0.097) | (0.097) | (0.052) | (0.052) |
| LN Inv. Inc. | 0.029 | 0.029 | -0.069*** | -0.068*** | 0.429 | 0.426 | -0.115 | -0.115 |
| | (0.020) | (0.020) | (0.017) | (0.017) | (0.263) | (0.261) | (0.078) | (0.078) |
| Size | 0.089 | 0.085 | -0.184 | -0.155 | 3.719 | 3.609 | 0.346** | 0.335** |
| | (0.367) | (0.369) | (0.306) | (0.310) | (2.634) | (2.603) | (0.171) | (0.168) |
| Surplus | 0.337 | 0.337 | -0.926 | -0.908 | -19.319 | -19.365 | -3.699 | -3.767 |
| | (0.264) | (0.266) | (0.630) | (0.630) | (15.865) | (15.891) | (2.870) | (2.884) |
| Debt ratio | -0.032 | -0.033 | 0.119 | 0.122* | 0.180 | 0.167 | 0.055 | 0.052 |
| | (0.098) | (0.098) | (0.072) | (0.073) | (0.387) | (0.384) | (0.165) | (0.167) |
| Age | 1.113*** | 1.113*** | 0.637*** | 0.640*** | 0.451 | 0.438 | -0.020 | -0.020 |
| | (0.099) | (0.099) | (0.082) | (0.082) | (0.483) | (0.479) | (0.018) | (0.018) |
| Performing arts or museum | -0.060 | -0.060 | -0.466 | -0.461 | 2.183 | 2.173 | 0.874 | 0.847 |
| | (0.159) | (0.160) | (0.833) | (0.834) | (6.680) | (6.676) | (0.547) | (0.544) |
| Constant | -34.572*** | -34.494*** | -12.258* | -12.830** | -96.835 | -94.667 | 4.614 | 4.751 |
| | (8.884) | (8.922) | (6.251) | (6.350) | (64.856) | (63.850) | (3.037) | (3.120) |
| R-squared | 0.012 | 0.020 | 0.020 | 0.021 | 0.036 | 0.035 | 0.998 | 0.998 |
| Method | FE | FE | FE | FE | FE | FE | Pooled | Pooled |

*n*=391; Robust standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1
Probability weights used in FE and pooled; Years omitted

contributions. The results are contrary to expectations for four of the six models. Of the organizations that received public support, public benefit-providing arts nonprofits had lower mean financial health outcomes compared to private benefit-providing arts nonprofits when equity ratio, return on assets, months of spending, and change in months of liquidity are the outcome variables. The coefficients for public, a dichotomous variable indicating whether the organization's programming provided at least 90% public benefits, is negative and statistically significant for equity ratio and change in months of liquidity. Of the arts nonprofits that received public support, public organizations had a mean equity ratio that was 0.18 lower than private organizations, all else held constant. The mean change in months of liquidity for public arts nonprofits is 1.89 lower than the mean for private arts nonprofits, ceteris paribus. Hypothesis 1a is negated. The decline in government funding and charitable contributions during the recession, as well as difficulties associated with government funding may have contributed to these results (Boris, et al., 2010b; Salamon, et al., 2009).

*Hypothesis 1b*

The next sub-hypothesis states that private benefit-providing arts organizations that received private sources of financial support had better financial health over the economic downturn. To test this hypothesis, I examined the relationship between being categorized as a private benefit-providing arts nonprofit and the financial health among those organizations that reported earned income. As can be seen in Model 6a in Table 12, private arts nonprofits had a mean equity ratio that was 0.37 higher than public arts nonprofits with private support, all else held constant. This aligns with the hypothesized direction that arts nonprofits that matched their private benefits with private revenue sources had better financial health over the years of interest.

Table 11 Regression Results for Publicly Supported Arts Nonprofit Organizations

| Variables | (5a) ER | (5b) ROA | (5c) MOS | (5d) MU | (5e) ML | (5f) Change in ML |
|---|---|---|---|---|---|---|
| Public | -0.179** | -0.093 | -8.249 | 24.486 | 0.839 | -1.886*** |
| | (0.076) | (0.201) | (7.730) | (22.372) | (1.803) | (0.613) |
| SQ Mark up | | | | 0.415 | | |
| | | | | (0.532) | | |
| HHI | -0.009* | -0.004 | -0.313 | -0.264 | -0.026 | -0.128** |
| | (0.005) | (0.004) | (0.279) | (0.615) | (0.065) | (0.058) |
| LN Inv. Inc. | 0.038*** | 0.020 | 0.295 | 2.255 | 0.031 | -0.112 |
| | (0.012) | (0.014) | (0.578) | (2.201) | (0.130) | (0.083) |
| Size | -0.019 | 0.043 | 3.402* | 20.082* | 0.050 | 0.351** |
| | (0.059) | (0.061) | (1.834) | (10.478) | (0.318) | (0.170) |
| Surplus | 0.178 | -0.044 | -36.009 | 15.298 | -1.099 | -4.387 |
| | (0.174) | (0.119) | (29.826) | (22.813) | (2.451) | (3.170) |
| Debt ratio | -0.552*** | 0.042** | -0.006 | 3.832*** | -0.098* | 0.096 |
| | (0.046) | (0.018) | (0.238) | (1.424) | (0.053) | (0.144) |
| Age | 0.013* | 0.007 | -0.256** | 0.870 | -0.139* | -0.017 |
| | (0.008) | (0.010) | (0.127) | (0.815) | (0.077) | (0.018) |
| Performing arts or museum | -0.123 | -0.142 | -4.324 | 17.717 | -2.342 | 1.031 |
| | (0.113) | (0.209) | (4.491) | (21.771) | (1.476) | (0.635) |
| Constant | 0.792 | 0.031 | -0.786 | -209.435 | 8.845 | 4.071 |
| | (1.141) | (0.817) | (23.115) | (143.632) | (5.454) | (3.159) |
| R-squared | 0.996 | 0.056 | 0.037 | 0.251 | 0.056 | 0.998 |
| Method | Pooled | RE | RE | RE | RE | Pooled |

*n*=390; Robust standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1
Probability weights used in pooled; Years omitted

Table 12 Regression Results for Privately Supported Arts Nonprofit Organizations

| Variables | (6a) ER | (6b) ROA | (6c) MOS | (6d) MU | (6e) ML | (6f) Change in ML |
|---|---|---|---|---|---|---|
| Private | 0.374*** | 0.165 | 27.526 | 31.052 | -0.488 | 0.531 |
| | (0.124) | (0.238) | (21.205) | (40.737) | (3.477) | (1.038) |
| SQ Mark up | | | | 0.354 | | |
| | | | | (0.492) | | |
| HHI | -0.012** | -0.006 | 0.067 | -0.434 | -0.035 | -0.155** |
| | (0.005) | (0.004) | (0.093) | (0.673) | (0.073) | (0.077) |
| LN Inv. Inc. | 0.046*** | 0.026 | 0.567* | 3.354 | 0.156 | -0.062 |
| | (0.014) | (0.016) | (0.306) | (2.372) | (0.122) | (0.061) |
| Size | -0.018 | 0.040 | 3.546** | 20.050* | -0.111 | 0.269 |
| | (0.061) | (0.063) | (1.515) | (10.994) | (0.317) | (0.196) |
| Surplus | 0.214 | -0.002 | -2.859 | 31.225 | 0.588 | -3.709 |
| | (0.169) | (0.138) | (3.837) | (24.879) | (1.843) | (3.021) |
| Debt ratio | -0.556*** | 0.044** | 0.279* | 4.018*** | -0.102** | -0.022 |
| | (0.049) | (0.019) | (0.160) | (1.483) | (0.051) | (0.175) |
| Age | 0.011 | 0.007 | -0.202* | 0.901 | -0.126* | -0.042 |
| | (0.008) | (0.010) | (0.123) | (0.780) | (0.075) | (0.030) |
| Performing arts or museum | 0.000 | -0.161 | -3.726 | 23.288 | -2.461* | 1.738* |
| | (0.104) | (0.232) | (2.782) | (22.918) | (1.415) | (1.011) |
| Constant | 0.681 | 0.086 | -38.793* | -203.083 | 10.653 | 5.277 |
| | (1.197) | (0.800) | (21.419) | (144.772) | (6.515) | (3.908) |
| R-squared | 0.996 | 0.056 | 0.064 | 0.264 | 0.175 | 0.998 |
| Method | Pooled | RE | RE | RE | RE | Pooled |

*n*=368; Robust standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1
Probability weights used in pooled; Years omitted

Private arts nonprofits had higher mean financial health measures for return on assets, months of spending, mark up, and change in months of liquidity as well. However, these positive coefficients are not statistically significant, so cannot be extended beyond the sample used for analysis. Model 6e with months of liquidity as the dependent variable is the only regression model here where being a private benefit-providing arts nonprofit is negatively associated with financial health, indicating these organizations in the sample had lower months of liquidity compared to public benefits-providing arts nonprofits that received private sources of financial support. This result is not significant either.

Hypothesis 1b receives very limited support. Although private arts nonprofits that receive private support do have higher mean financial health outcomes for all measures excluding months of liquidity, the relationship is significant for equity ratio only. With a few exceptions, the control variables have similar relationships with each financial health outcome variable as in Models 5a to 5f where the sample is limited to those that received public support. Arts nonprofits supported by earned income that had more highly concentrated revenue had lower financial health measures except for months of spending.

*Control Variables*

There are several control variables in the models that are statistically significant. To begin, the dichotomous variables public and private in the model use mixed nonprofits as the comparison group. Findings from the nonprofit finance literature suggest that having diversified or mixed revenue sources improves financial standing. Thus, I use mixed nonprofits as the comparison group in order to explore whether providing a diversified portfolio of benefits is related to financial health as well. The coefficients for public nonprofit in Table 7 show that

public arts nonprofits had a higher mean equity ratio, months of spending, mark up, and months of liquidity than comparable mixed benefit-providing arts nonprofits in the sample. Public arts nonprofits, however, had lower mean return on assets and change in months of liquidity. The coefficient is significant for change in months of liquidity, indicating that public benefit-providing arts nonprofits had declining months of liquidity. For four of the six dependent variables, private arts nonprofits had lower mean financial health outcomes than mixed arts nonprofits. Private arts nonprofits in the sample had higher mean months of spending and months of liquidity than mixed nonprofits, although these coefficients do not reach statistical significance. However, private arts nonprofits do have a mean return on assets that is 1.61 lower than mixed arts nonprofits, ceteris paribus. The mean mark up of private benefit-providing arts nonprofits is 120.34 lower than the mean mark up of mixed arts nonprofits, all else held constant. These results suggest that arts nonprofits that provide 90% or more of private benefits have lower financial sustainability than mixed-benefit arts nonprofits.

Generally, the regression results in this chapter indicate that revenue diversification is negatively related to the financial health outcome measures and is significant at varying significance levels for several of the dependent variables. For instance, HHI is negatively and significantly related to equity ratio, return on assets, mark up, and change in months of liquidity in the models where I use the 90% distinction to classify public or private nonprofits. Investment income has less consistent relationships with the financial health variables. Investment income is negatively and significantly related to the return on assets and mark up in the models testing Hypothesis 1. However, investment income bears a positive and significant relationship with three different outcome measures in the models testing Hypotheses 1a and 1b that are limited to arts organizations that are publicly or privately funded.

Age has an inconsistent relationship with the outcome measures, however. That age is positively and significantly associated with equity ratio and return on assets for the models testing Hypothesis 1 and Hypothesis 1a. This aligns with the hypothesized direction of the relationships that older organizations had better financial health than younger organizations, since older organizations tend to have more routinized practices and legitimacy in their service area that can help contribute to financing and health (Chambre & Fatt, 2002). However, age is negatively and significantly associated with months of liquidity, as seen in Tables 7 to 9, so there are perhaps some other factors at play that prevent older organizations from having greater current term health.

Tables 7 to 9 show that the coefficients for surplus are negative and significant for short and long-term measures of financial health that speak to nonprofits' vulnerability to financial shocks and ability to grow. Since surplus is calculated using total revenue and total expenditures, increases in surplus do not necessarily mean there are corresponding changes in net assets if the increases are achieved by reducing total expenditures, as nonprofit organizations did during a recession, such as the one during the years included in the panel data. The coefficients for debt ratio in Tables 10 to 12 show negative and positive associations between debt ratio and financial health. The expected direction of the relationships between debt ratio and the outcome variables is negative, yet is positive for return on assets, months of spending, or mark up. Increases in debt ratio are associated with declines in equity ratio and months of liquidity among publicly and privately supported arts nonprofits, however, so there may be more complicated relationships in how arts nonprofits utilize debt to aid financial standing.

Size is positively and significantly associated with different financial health outcomes across the models, indicating that larger arts nonprofits are financially healthier than smaller arts

nonprofits. The direction of this overall relationship meets expectations. There is no difference in the financial health outcomes of performing arts nonprofits and museums and other arts nonprofit organizations until the analysis is limited to privately supported arts nonprofits. Among privately-funded arts nonprofits, performing arts organizations and museums had lower mean months of liquidity and higher mean change in months of liquidity than organizations in other activity fields. These coefficients reach significance at the 0.1 level, so there may be operational or organizational differences between performing arts nonprofits and museums and other types of arts charities. Finally, there is no significant relationship between status quo mark up and mark up either, although this relationship is consistently positive across the models.

## Discussion

### *Findings*

The results of the statistical analyses utilizing primary survey data and secondary data provide very limited support for the hypotheses. Benefit-revenue alignment is positive and significant only when changing the classification of mixed benefit arts nonprofits from those that stated that 40% to 60% of programming was public in nature to 35% to 65% of programming. Using the 40% to 60% classification for mixed benefit nonprofits, there are 14 mixed benefit-providing organizations in the sample. Widening the delineation increases the number to 16 mixed benefit nonprofits. Due to the definitions, there are some observations that are not categorized as being specifically public, private, or mixed benefit-providing nonprofits, so including the additional observations when operationalizing the independent variables led to different results. The number of mixed benefit nonprofits is small regardless of the definition

used. If the sample were larger, there may be more variation in the types of benefits the respondents provided and the results may be more consistent even after changes in definition.

The results from the regression analyses using the less stringent definition of mixed benefit-providing arts nonprofit organizations indicate the nonprofits with benefit-revenue alignment have mean equity ratio and months of spending that are higher than their non-aligned counterparts. These are both measures of financial health in the long- and short-term time frames, indicating that aligned organizations were better able to grow and be stable. Benefit revenue-alignment may be an indication that the organizations actively analyze their revenue streams and portfolio of programs to ensure their revenue sources support their missions or identify missed opportunities. Assuming that organizations that analyze their revenue sources and programs also examine possible opportunities and threats to service delivery, it is logical that organizations with benefit-revenue alignment also had greater equity ratio and months of spending than their counterparts without alignment.

At the same time, using the less stringent categorization of mixed benefit arts organizations leads to regression results where the mean return on assets and change in months of liquidity is higher for organizations without benefit-revenue alignment. This contradicts expectations that arts nonprofits with benefit-revenue alignment had better outcomes for financial sustainability as well. Bowman (2011a) recommends that return on assets be equal to the long run rate of inflation of 3.4 to be able to maintain long-term financial capacity. If the average return on assets of the population of non-aligned arts nonprofit organizations in the U.S. were equal to the long run rate of inflation, having a lower mean return on assets means that organizations with benefit-revenue alignment may not be able to maintain their level of service provision and would have to potentially reduce organizational or programmatic expenditures.

Similarly, the rate of change in their months of liquidity was lower than those without alignment. This does not necessarily mean that aligned arts nonprofits are financially insolvent, but rather that the rate of change in months of liquidity is lower than that of arts organizations without benefit-revenue alignment. Change in months of liquidity should be positive since positive values indicate that working capital, or liquid assets, is increasing from year to year.

It can take time to consider these factors in addition to achieving financial health benefits of alignment. Moreover, positive associations between benefit-revenue alignment and short and long term financial health measures and negative associations with current and long term financial health suggest there are more complicated relationships between benefits provided, income portfolios, and financial health. As stated previously as well, I assume that achieving an income portfolio that corresponds with the benefits a nonprofit provides requires that nonprofit organizations actively analyze their current and potential revenue sources and portfolio of benefits. However, the types of revenue sources that nonprofits seek out are based on decisions that consider several factors, not only including alignment with the benefits that their services provide. For instance, the sustainability of the funding source, crowding in of additional streams of revenue, as well as the revenue source's impacts on organizational behavior are considerations for nonprofit managers when analyzing revenue streams (Kearns, Bell, Deem, & McShane, 2012; Moulton & Eckerd, 2012).

Widening the classification of public or private benefit-providing organizations led to conflicting results. While using the 90% distinction for public and private nonprofits did not yield significant results, despite having positive coefficients on all outcome variables, there was a negative relationship between benefit-revenue alignment and equity ratio using an 85% distinction. The coefficient is significant at a 0.1 significance level using and 80% distinction.

Although there is growing research that empirically tests the benefits theory of nonprofit finance, this research provides indication that classification matters and that results can differ based on which definition of benefit-revenue alignment and public and private nonprofits are used. The 90% distinction is based on previous research that classified nonprofits as donative or commercial. According to this study, approximately 27% and 28% of nonprofits were donative and commercial, respectively, in 2007 (Teasdale, et al., 2013). Donative and commercial nonprofits are comparable to public and private designations in this thesis. Although the study found that over 50% of nonprofits fell into either category, a majority of the organizations in the sample I use in this dissertation identified as providing public benefits, which would also lead to different findings than those expected from existing literature.

That most of the respondents stated they provided more public benefits each year highlights certain issues. First, literature on arts organizations state that these organizations have three main types of beneficiaries, including customers, communities at large, and arts professionals (Boorsma & Chiaravalloti, 2010). In theory, arts organizations provide a mix of public and private benefits. Yet in practice, arts nonprofits could consider themselves to be public if they believe their key mission is art preservation rather than serving individual customers or arts professionals. These organizations may consequently seek out more public sources of revenue although they provide more private or mixed benefits if they were to seek benefit-revenue alignment. Programming such as education provides both public and private benefits, since this type of programming contributes to a broader public as well as individual beneficiaries. Additionally, arts nonprofits that receive public support for programs that serve individuals in specific communities, such as low-income or minority communities, may construe these programs as public due to the public support.

The challenges associated with distinguishing the level of public versus private benefits would be difficult for survey respondents to address. If this were the case, the results of the statistical analyses would differ from expectations based on the literature. Classifying nonprofits by their revenue sources can be a limiting way of conceiving of nonprofit organizations because we cannot reach a deeper understanding of organizational identity or of what they consider to be more important in terms of benefits provided. The self-identification of the type of benefits provided may have contributed to public organizations being more highly represented in the sample compared to private and mixed benefit organizations and is a contributing factor as to why the analysis of benefit-revenue alignment is exploratory at best.

In any case, regression results do not correspond with findings from the literature. For instance, the expectation stated in Hypothesis 1a is that arts nonprofit organizations that were public and received public support have better financial health. However, results indicate that excluding mark up and months of liquidity, public arts nonprofits that also received public support have significantly poorer financial health outcomes when the outcome variables are equity ratio and change in months of liquidity. Government and charitable support declined during the economic downturn (Salamon, et al., 2009), resulting in revenue losses evident in the data that could have had negative impacts on financial health. The difficulties associated with government support, such as bureaucracy and failing to cover organizational overhead, may also take organizational assets away from other financial management activities that boost financial health (Pettijohn, et al., 2014). For the arts organizations in the sample, public forms of support experienced the sharpest decline at the start of the recession, so the negation of Hypothesis 1a may not actually be that surprising.

Asides from months of liquidity, the results for the models testing Hypothesis 1b indicate that private arts nonprofits that received private support had higher mean financial health outcomes, although the coefficient is significant for equity ratio only. This provides very limited support for the notion that aligning benefits provided with revenue sources in any capacity may have financial health benefits, although Hypothesis 1a for the sample of public arts nonprofits with public support was not confirmed. Earned income is the only source of revenue for the sample that grew overall after hitting a low in 2007, so that privately supported nonprofits also had higher financial health makes intuitive sense. Perhaps the most significant takeaway of the results, however, is that in an open systems environment experiencing an economic recession, it is not the type of resources that an organization brings in that is important, but simply that the organization can bring in resources at all.

I also used public and private classifications of the nonprofits as control variables when testing Hypothesis 1. The regression results for public and private benefit-providing nonprofits are in line with the literature. Public and private nonprofits have lower financial health outcomes compared to mixed benefit providing arts nonprofits when I use the 90% classification for private and public nonprofits. Previous research tends to categorize nonprofits as commercial or donative based on their income (Hansmann, 1989), but I use a different classification based on the respondents' identification of the percentage of public benefits they provided over the time period of analysis. Donative arts nonprofits that draw at least 60% of revenue from contributions have been found to experience higher revenue volatility than their commercial counterparts that draw most of their revenue from earned income sources (Kim, 2017). In addition, nonprofit organizations that draw on public sources of support have lower operating reserves (Calabrese, 2013). Operating reserves are another measure of financial health; in this dissertation, it is

comparable to months of spending. Thusly, the finding that public nonprofits also have lower mean change in months of liquidity is in line with previous findings. Revenue diversification also reduces financial volatility (M. Kim, 2017; Wicker, et al., 2015), which is an indicator of financial health, so it is conceivable that nonprofits that provide diversified, or mixed, benefits have higher mean financial health outcomes. In the models testing the chapter's hypotheses, both public and private are negatively associated with the financial health outcomes of arts nonprofits, which supports the notion that the financial health benefits of diversification extend to nonprofit program portfolios.

I included the control variables public and private because public, private, and mixed-benefit providing organizations differ in their spending (Wilsker & Young, 2010), and so may differ in their financial health. In the analyses in this chapter, I find that the mean financial health outcomes for public and private benefit-providing arts nonprofits are lower than mixed benefit-providing arts nonprofits in the current, short, and long-term. This can be seen in Tables 7 through 10. Although there has not yet been empirical analysis of the financial health differences based on benefits provided, this exploratory examination suggests that providing mixed benefits can have positive results on financial health. Perhaps this is due to having a wider variety of beneficiaries from which mixed benefit-providing organizations can cull revenue from.

The results for the revenue concentration index meet expected results because more highly concentrated arts nonprofits had lower financial health outcomes. The negative relationship between revenue concentration and financial health can also be seen for the financial health measures across the different time periods. This indicates that arts nonprofits with concentrated income sources have lower abilities to meet current obligations, withstand financial shocks, and grow in the long-term. The relationship between investment income and financial

health among arts nonprofits is negative for return on asset and mark up, as seen in Tables 7 to 10. When limiting the sample to either arts nonprofits that receive public or private funding, as in Tables 11 and 12, however, investment income takes on a positive direction with equity ratio and/or months of spending. This could mean that there are interactions between investment income, revenue sources, and financial health.

Larger organizations generally display less financial vulnerability than smaller nonprofit organizations (e.g., Trussel, 2002). In this research, I also find that size is positively associated with current-term and short-term financial health measures, which capture a nonprofit's ability to meet current obligations and level of resiliency (Bowman, 2011b). That there is no difference between larger and smaller arts nonprofits in terms of long-term financial health is interesting because it could mean that larger organizations do not necessarily have the financial capacity to grow. Next, I expected age to be positively related to the financial health measures as well. The results in this chapter suggest that there are different financial health benefits associated with age for the different time frames. For instance, older arts nonprofits had higher equity ratios and return on assets, as seen in Tables 7 to 11, which are long-term measures of financial health. Based on these results, larger arts nonprofits had the financial health to be able to maintain and even grow their services. However, older arts nonprofits had lower months of liquidity, and so had fewer liquid assets than their younger counterparts. Age can have a complicated relationship with nonprofit survival, with different research finding evidence for liabilities of adolescence and senescence since a nonprofit's revenue streams and its existing legitimacy can work to minimize any liability of newness (Hager, et al., 2004; Hannan, 1988; Singh, Tucker, & House, 1986). The findings in this chapter may indicate that age can provide beneficial and hindering impacts on financial health at different time periods. Finally, I included activity field as a control variable

and expected that performing arts organizations and museums would have different financial health outcomes compared to arts nonprofits in other fields due to the capital-intensive nature of performing arts nonprofits and museums. However, there are no significant differences found between activity fields in this analysis, apart from months of liquidity and change in months of liquidity among privately-funded arts nonprofits. This activity field tends to have higher levels of restricted assets such as real estate, which may affect the availability of liquid assets to meet current obligations.

*Organizational Slack*

Organizational slack can be perceived of as reserves that can aid stability and survival during periods of financial distress or growth (Greenlee & Tuckman, 2007). Furthermore, nonprofit organizations need slack to be able to maintain service delivery and efficiency and to grow as well (Miller, 2003), which is one of the key conceptualizations of nonprofit financial health. In the analyses throughout this dissertation, I originally included surplus and debt ratio because they are related to financial stability, growth, and vulnerability. I measure surplus as the difference between total revenue and total expenses, divided by total revenue. Debt ratio is calculated as total liabilities over total assets. The findings that surplus and debt ratio are significantly associated with some of the financial health outcomes of arts nonprofit organizations, though not expected from the outset, should not be surprising and warrant further discussion.

In this chapter, surplus and debt ratio have unexpected and inconsistent relationships with the different outcome variables. Tables 11 and 12 display the regression results when the sample is limited to public or private benefit providing arts nonprofits. Based on the results, debt ratio is

negatively related to equity ratio and months of liquidity, but positively to return on assets, months of spending, and mark up. The expectation was that surplus would have a positive relationship with financial health while debt ratio would have a negative relationship with financial health. However, among arts nonprofit organizations, the coefficients I observe here may reflect more complicated relationships between organizational slack and financial health.

Theories of nonprofit debt and borrowing include a pecking order theory or static trade off theory. If organizations that borrow have a pecking order, the organizations prefer one type of financing, such as contributions, over another, such as debt. The static trade off theory, on the other hand, posits that organizations have an optimal level of debt that allows the organizations the balance the costs and benefits associated with borrowing (Bowman, 2002). There is evidence that nonprofit organizations display the static trade off concept of borrowing, which suggests that debt can be used as a tool for financing rather than being used as a last resort when other revenue sources are inadequate (Bowman, 2002). That increasing debt ratio corresponds with increases in certain financial health measures provides some support for the static trade off theory of debt because it implies that obtaining debt is not necessarily a reaction to declining sources of revenue, for instance. One study has found that arts nonprofits with diversified revenue were actually more likely to issue debt as well (Wenli, Denison, & Butler, 2009), providing more support that the assumption that debt and financial health are negatively associated may be incorrect.

However, it is difficult to state how the results of this study compare with other findings. First, debt can be a tool for nonprofit organizations to obtain capital as long as they are able to repay the debt (Tuckman, 1993; Yetman, 2010). Next, there may be conflicting findings about the role of debt on nonprofit financial health since debt was also found to be associated with

having greater financial health (Tuckman & Chang, 1993). Finally, there is a dearth of research on the use of debt to finance operations beyond capital construction for arts nonprofit organizations, as well as research on the use of debt during the economic downturn. The use of debt may have differed during this period compared to earlier years and differed from other subsectors as well.

The inverse relationship between surplus and financial health outcomes among arts organizations is more difficult to explain. As seen in Tables 7 through 9, defining arts nonprofits that have benefit-revenue alignment as those private or public benefit providing organizations that draw on from 80% to 90% of revenue from corresponding private or public sources, surplus is negatively related with return on assets and mark up. Return on assets is a long-term financial health measure related to growth while mark up is a short-term measure that speaks to a nonprofit's ability to weather financial shocks. Consequently, the results indicate that arts nonprofits with higher surplus have lower abilities to grow and prevent financial vulnerability. Having a financial surplus in a given year could mean that the organization was undertaking a capital campaign. If the capital campaign was to build construction, the organization's expenses in later years would thereby increase, creating reductions in net assets from year to year. Mark up could have a negative relationship with surplus if the surplus is from increases in restricted assets, such as those from a capital campaign, rather than resulting from increases in unrestricted assets. Capital construction projects can also lead to financial difficulties if construction or operating costs exceed projections and/or if revenues from the project are less than predicted (Woronkowicz, 2011). Although having a surplus should provide slack, the capital-intensive nature of arts nonprofits can mean that surplus, slack, and financial health interact differently than for nonprofits in other subsectors.

## Summary

As a highly preliminary and exploratory attempt to analyze the benefits and revenue that arts nonprofits provide, this research provides some indication that the relationship between benefit-revenue alignment and financial health outcomes of nonprofits warrant further examination. Panel data and pooled regression analyses of survey responses and IRS Form 990 financial data indicate that when mixed benefit-providing nonprofits are identified as those nonprofits whose public programs comprise 35% to 65% of total programming, benefit-revenue alignment is positively associated with equity ratio, but negatively with return on assets and change in months of liquidity. These results suggest that benefit-revenue alignment may require time for positive results to come to fruition and that there are differences between financial health correlates at current, short, and long term time frames. More interesting findings may be that surplus and debt play different roles for arts nonprofit organizations than for nonprofits in other subsectors such as human service nonprofits that typically dominate financial research.

# CHAPTER IV ORGANIZATIONAL ECOLOGY

## Introduction

Nonprofit organizations operating in an open system interact with several elements that are external to the organization. These elements can include individuals and other organizations. This interaction may influence why arts nonprofit organizations must pay attention to changing demographics of local populations, or even non-local populations, that consume their programs and services. Otherwise, arts nonprofits risk losing beneficiaries and potential donors if the arts nonprofit does not meet the needs of the demographics. Populations ignored by arts nonprofits before the recession consequently also ignored arts nonprofits during the recession, causing financial difficulties for these organizations (Cunniffe & Hawkins, 2016). For this reason, it is important to understand how the interaction between arts nonprofits and their socioeconomic environments can impact financial health.

In this chapter, I utilize organizational ecology to examine the relationships between environmental factors, and more specifically the characteristics of local populations of individuals, and the financial health of arts nonprofits from 2009 to 2013. Organizational ecology is typically used to study the survival or closure of organizations, but since there are methodological difficulties to studying nonprofit survival, I study the relationship with the six measures of financial health used in the previous chapter. After explaining organizational ecology and discussing the findings of previous research, I describe the statistical methods I use to analyze the data from the IRS, U.S. Census, and the Bureau of Economic Analysis. After, I discuss the results of the findings and close with a summary of the chapter.

Literature Review

From an open systems perspective, survival is the ultimate goal of organizations operating in an uncertain environment (Thompson, 1967). According to the theory of organizational ecology, the life expectancy of an organization is impacted by its relationship with other populations within an environment (Hannan, 2005; Hannan & Freeman, 1977). Social processes such as legitimation and competition for resources impact survival (Hannan, 2005; Nickel & Fuentes, 2004). These studies examine how characteristics such as legitimacy, age, and size, as well as external factors such as demand for services and density dependence, impact the rates of closure (e.g., Baum & Oliver, 1991; Baum & Singh, 1994; Fernandez, 2008). Indeed, survival may be perceived to be a measure of financial health. As Bowman (2011b) asserts, nonprofit organizations need to consider financial capacity and sustainability in order to provide services in the current, short, and long-term time periods. A nonprofit that is not able to maintain capacity and sustainability are at risk of not having the financial resources to operate and thus face the risk of closure.

To begin, one possible explanation for differential rates of organizational survival is legitimacy. This idea emphasizes the pressure that nonprofit organizations have to mimic successful organizations as well as to meet the demands of current norms or political pressures (Bielefeld, 1992b; DiMaggio & Powell, 1983). A nonprofit that meets social expectations should have more external legitimacy since the organization's perception to outside actors, such as funders and the community, are based on how well the organizations meets expectations of success. In other words, conforming to accepted norms increases an organization's chances of survival and can impact funders' decisions to donate to an organization (Besel, et al., 2011; Hager, 1998). A related notion is the idea that institutional linkages and other forms of social

capital are related to organizational closure. Having ties to the community can help nonprofit organizations because nonprofits have increased access to resources, both financial and knowledge-based. These connections and perceptions of following norms add to an organization's external legitimacy. Higher external legitimacy, when defined as institutional linkages and outside perceptions, is related to lower death rates for various organizations (e.g., Baum & Oliver, 1991; Edwards & Marullo, 1995; Fernandez, 2008; Singh, et al., 1986; Weed, 1991).

Next, organizational ecology conceptualizes the implications of age on closure as the liabilities of newness and adolescence. Liability of newness refers to the idea that new organizations die more often than older organizations. The higher closure rates of younger organizations may be due to the lack of experience, resources, community connections, or routinization of older organizations that are necessary for longevity (Hager, et al., 2004). If an organization does not have these resources, then the ability to effectively compete among other organizations may suffer. Additionally reliability and accountability of organizations increase with age, which aids organizational survival as well (Singh & Lumsden, 1990). Among nonprofit organizations, younger nonprofits do have a higher likelihood of closing, confirming liability of newness (Chambre & Fatt, 2002; Fernandez, 2008; Hager, 1998, 1999; Hager, Galaskiewicz, Bielefeld, & Pins, 1999; Hager, et al., 2004; Singh, et al., 1986). Although actual survival rates are difficult to ascertain, it is estimated that two-thirds of nonprofit organizations may not survive beyond five years (Koss-Feder, 2007).

The liability of age extends into adolescence as well, which is referred to as the liability of adolescence in studies of organizational ecology. The liability of adolescence can be due to the loss of initial resources, such financial, human, or social capital resources (Fichman &

Levinthal, 1991). It also takes time to establish the resources, connections, and linkages needed for survival, so closure is not decided upon until there has been sufficient time to judge the organization's ability and success in garnering these resources. In support of the liability of adolescence among nonprofits, Chambre and Fatt (2002) attributed the liability of adolescence found among AIDS organizations to poor management that hindered the ability to compete while Edwards and Marullo (1995) explained the liability of adolescent peace movement organizations as a result of decreased volunteer and member enthusiasm. An examination of human service organizations during the welfare reform time period found that the highest death rates occurred among nonprofits between five and nine years old (Twombly, 2003).

The size of a nonprofit organization can be another factor that hinders survival. This is because smaller organizations may lack the financial and human resources to compete with larger organizations. The liabilities of age and size may be inter-related since new organizations also tend to be small (Wholey & Brittain, 1986). In any case, studies analyzing domestic and international nonprofit organizations show that smaller nonprofits do indeed close at higher rates compared to larger nonprofit organizations (Burger & Owens, 2011; Hager, 1998; Hager, et al., 1999; Lecy, 2010; Twombly, 2003). These studies utilized revenue or assets as indicators of organizational size, showing that financing is an important consideration when studying nonprofit closure.

Moreover, because a key theme of the open systems framework is the import of resources from the environment, organizational ecology studies also examine the role of financial resources on the nonprofit life cycle. The survival of nonprofit organizations may depend on the ability to garner financial resources (Mosley, et al., 2012). Consequently, the greatest risk an organization may take is to depend on one funding source for income since funding changes can

drastically impact financial stability (Besel, et al., 2011; Bielefeld, 1992a; Carroll & Stater, 2009; M. K. Foster & Meinhard, 2005). Similar to resource dependency studies, research on organizational ecology uses HHI as a measure of revenue concentration to find that nonprofits with lower revenue concentration have higher survival rates compared to nonprofits with highly concentrated revenue (Bielefeld, 1994; Hager, 2001).

Specific resource inputs are important as well, since acquiring government revenue may be related to improved nonprofit survival. For instance, individual revenue streams may impact survival. For instance, government support may provide a stable source of funding that reduces the risk of closure (Chambre & Fatt, 2002; Fernandez, 2008; E. T. Walker & McCarthy, 2010). The receipt of charitable contributions can also enhance survival (Hager, 1998; Hager, et al., 1999). In other words, how much revenue a nonprofit has is not the only determinant of survival. The types of revenue that a nonprofit draws on matter as well.

According to organizational ecology, the density of the organizational environment may be related to mortality. Density is defined as the number of organizations in the population. Organizational closure is the highest at the lowest and highest densities because legitimacy is the lowest at low densities whereas competition for resources is the highest at high densities (Hannan, 1988). In effect, density captures the impacts of both organizational competition and legitimacy on closure, but density dependence has been used primarily for analyzing organizational formation (Hannan, Barron, & Carroll, 1991). Findings regarding density dependence and nonprofit formation are mixed. Saxton and Benson (2005) found that density was positively related to nonprofit formation while Twombly (2003) found that density was negatively related to the founding of human service nonprofit organizations. Unfortunately, studies conducted on nonprofit organizations do not examine the impact of density itself on

closure, although contributing factors that are related to nonprofit density is a topic of research (e.g., Ahn, 2010; Lecy, 2010; Lecy & Van Slyke, 2012).

Nonprofit closure is a difficult concept to measure because nonprofits are not required to report whether they have closed. As a result, perhaps the most approximate and available measure is the number of automatic revocations of tax-exempt status by the Internal Revenue Service (IRS), which occurs when nonprofit organizations do not submit required information returns for three consecutive years (IRS, 2017b). During the Great Recession, for instance, the arts subfield received much attention for its high threat of organizational closures by popular media (e.g., Berman, 2009; Jacobson, 2008). One study of IRS Form 990 data found that 40% of arts nonprofits that were operating in 1990 had closed by 2010 (e.g., Hoye, 2009). Consequently, the arts subsector may be more prone to closure than the automatic tax exemption revocations convey.

Research on the organizational survival of nonprofits can be difficult to conduct due to the challenges associated with obtaining accurate data on closure. This may be a contributing factor to the smaller number of studies on survival compared to research on nonprofit formation. These studies find that characteristics such as population size or growth, educational attainment, and race are related to nonprofit formation (Corbin, 1999; Grønbjerg & Paarlberg, 2001; Lecy & Van Slyke, 2012; Saxton & Benson, 2005). Research on the closure of nonprofit arts organizations is limited as well, despite the media coverage during the Great Recession that highlighted their difficulties. However, there is evidence to suggest that financial characteristics such as having low administrative costs and low operating margins is related to arts nonprofit closure (Hager, 2001). Supporting previous organizational ecology and resource dependency studies, larger arts nonprofits have higher survival rates, as do arts nonprofits that have

diversified revenue sources or rely on charitable contributions for 30% to 40% of total revenue (Hager, 2001; n.a., 2013b). Currently, research examining the environmental determinants of arts nonprofit financial health or survival is limited. There is some support that arts nonprofit organizations located in urban areas were more likely to close over the 1990 to 2010 time period compared to those located in suburban areas, indicating that population can impact survival (n.a., 2013b). However, the survival of arts nonprofit organizations remains understudied, and there is limited application of the findings of organizational ecology studies to the financial health of arts nonprofit organizations as well.

Environmental characteristics such as population are often omitted from studies of financial health in general, although two recent efforts provide support that population does matter. Lam and McDougle (2016) found that human service nonprofits located in communities with higher minority populations had lower current-term financial capacity and those located in areas with low mobility, an indication of community vulnerability, had higher short-term capacity. Prentice (2016) also found that population characteristics such as median household income and other environmental factors such as state Gross Domestic Product (GDP), State Product, and a nonprofit's revenue share in a region improve the financial health of human service nonprofits. These two studies provide support for the inclusion of similar environmental or population variables when studying the survival and financial health of arts nonprofits.

Arts nonprofits began to consider changing audience demographics and modifying their audience engagement strategies as a result in order to weather the Great Recession (Cunniffe & Hawkins, 2016), indicating that there may be financial health benefits to incorporating demographic information into arts nonprofit operations. This also seems to suggest that local populations influence the viability of arts nonprofits, which corresponds with the open systems

view that populations do indeed interact with organizations. Based on studies of organizational ecology, certain environments may be more supportive for nonprofit organizations in terms of survival and financial health. Accordingly, I set forth one key hypothesis.

Hypothesis 2: Arts nonprofits located in supportive socio-economic environments had better financial health during the Great Recession than those located in areas in less supportive socio-economic environments.

The corresponding sub-hypotheses are:

Hypothesis 2a: Arts nonprofit organizations located in more highly populated areas have better financial health during compared to arts nonprofits located in less populated areas.

Hypothesis 2b: Arts nonprofit organizations located in areas with smaller minority populations are more likely to have better financial health than those located in areas with larger minority populations.

Hypothesis 2c: Arts nonprofit organizations located in areas with higher income are more likely to have better financial health compared to those in poorer areas.

## Data

I use several data sources to test the above hypotheses, including IRS Form 990 financial data, U.S. Census demographic information, IRS Business Master File data, and BEA economic figures for the years 2008 to 2013. IRS Form 990 Core Financial Files are available through the Natioal Center for Charitable Statistics (NCCS) website. The American Community Survey Census data provides socio-economic information for population, minority population, and income. I obtained this data from the Social Explorer website that is available through the Georgia State University library. The IRS Business Master File (BMF) data is available on the

NCCS website. BMF data provides a list of registered 501(c)(3) organizations. Because the IRS publishes BMF data in different months throughout a given year and these months are not consistent, I use the last BMF for each year. The BMF datasets I use are for the months of December, October, and November for 2008 to 2010, respectively. I use the BMF from December of each year for 2011, 2012, and 2013. Finally, the BEA provides the Gross Domestic Product (GDP) by state for 2008 to 2013. Asides from using the BEA for GDP data by state, I limit the analysis to counties. This follows Prentice (2016), who states that using the county level of analysis is appropriate because using zip codes are too specific to capture a nonprofit's service area. The BEA and Census data were linked to the 990 financial data by merging by state or county FIPS code. The sample of 391 observations represents 25 states and 58 counties.

## Variable Operationalization

### *Dependent Variables*

I use the six measures of financial capacity and sustainability used in the previous chapters to operationalize arts nonprofit financial health. Long-term financial health is measured by *equity ratio* and *return on assets*, respectively. Short-term financial health is *months of spending* and *mark up*. Finally, I use *months of liquidity* and *change in months of liquidity* to measure current-term financial health. These dependent variables capture the ability of nonprofit organizations to attain certain goals at each time frame that reflect the different conceptualizations of nonprofit financial health such as volatility and growth. Table 1 in the previous chapter provides the definitions and calculations for the six outcome variables.[5]

[5] In the proposal for this dissertation, I originally stated that I would also use survival as a dependent variable measuring financial health. The sample of organizations that I used only had 26 organizations that closed. Because the organizations did not have websites, it was not possible to determine when the arts entities closed. A larger sample size and when closure occurred are needed for survival analysis or other statistical methods. However,

*Independent Variables*

To test the hypothesis that socio-economic variables are related to the financial health of arts nonprofits, I operationalize socio-economic characteristics as population, minority population, and income. *Population size* is measured as the natural logarithm of total population in a county. My operationalization of *minority population* is based on Lam and McDougle's definition (2015). In their study, a minority community is a dichotomous variable for whether or not an area had 65% or more the population identifying as nonwhite. I use a similar variable, as well as a variable that captures the actual percentage of individuals in a county identifying as nonwhite on the U.S. Census. Next, I use two variables to capture *income* in a county. First, I include the median household income in a county as a measure of wealth. I also use another measure of local wealth that Prentice used in his study of environmental factors on nonprofit financial health (2015). Similar to Prentice, I include GDP by state in the statistical analysis to serve as a broader measure of local wealth.

*Control Variables*

Organizational ecology asserts that sectoral density may be related to nonprofit entry due to competition for resources or legitimacy (Saxton & Benson, 2005; Twombly, 2002). Therefore, I include nonprofit density as a control variable in this chapter. *Nonprofit density* is defined as the number of registered nonprofit organizations in a county per 10,000 residents and is drawn from the BMF of registered nonprofits. The other control variables for this chapter's analysis that are the same as the previous chapters are: status quo mark up, revenue diversification,

survival is an important indicator of financial health that should be researched more fully in the future, as there may be different factors influencing whether an arts nonprofit closes and if it remains insolvent, yet continues operating.

organizational size, investment income, surplus, debt ratio, age, subsector, and year. See Table 13 for the definitions of the chapter-specific independent and control variables.

Table 13 Hypothesis 2 Independent and Control Variable Definitions and Measures

| Variable Type | Concept | Definition | Data Source |
|---|---|---|---|
| Independent | Population size | Natural logarithm total population in a county | U.S. Census |
| Independent | Minority population | Dichotomous variable<br>• 1 if county has 65% or more minority population<br>• 0 otherwise<br>Percentage nonwhite population in a county | U.S. Census |
| Independent | Income | Median household income by county<br>Gross Domestic Product by state | U.S. Census<br>BEA |
| Control | Nonprofit density | Number of registered nonprofit organizations per 10,000 residents | BMF |

## Methodology

I use longitudinal and cross-sectional analyses to test the hypotheses. Based on the results of the Hausman and the Breusch and Pagan Lagrange-multiplier tests for the appropriateness of fixed effects and random effects, respectively, I utilize different methods for each dependent variable. The Hausman test indicates that fixed effects panel data analysis is efficient for the dependent variables equity ratio and months of spending. For the variables return on assets, markup, and months of liquidity, the Breusch and Pagan Lagrange-multiplier test indicates that random effects panel data analysis is the appropriate method of analysis. For the outcome variable change in months of liquidity, however, both tests for fixed effects and random effects

show that neither methods are appropriate. Therefore, I use pooled regression analysis for change in months of liquidity.

In order to account for selection bias in the survey sample, I use probability weights in the models. I calculated the weights using the entire pool of recruited organizations and the sample of organizations that are included in the dataset based on size, age, county, and total revenue to ensure more equitable representation of smaller, younger, and rural arts nonprofits. The probability weights are used in the fixed effects and pooled regression models since these models accommodate the weights. Random effects panel data analysis does not allow the inclusion of probability weights. Similar to the methodologies in the previous chapters, I use lagged values for continuous independent and control variables in the statistical models to address any potential endogeneity in the regression models, so the years include 2009 to 2013. Also similar to previous analyses, all financial data are normalized to the 2013 dollar value using the Consumer Price Index and robust standard errors are used to minimize heteroscedasticity and autocorrelation.

## Summary Statistics

The summary statistics of the demographic and socioeconomic independent variables, shown in Table 14, highlight the diversity of the counties in terms of population size and wealth since there is a wide range for these variables. The minimum value for population size represents a county that had just under 93,000 residents while the upper end includes a county that had over 10 million residents. The variables capturing wealth do not include as broad of ranges, although the natural logarithm of median household income varies between roughly 10 to 16, or almost

$34,000 to almost $93,000. State GDP also ranges from approximately 82 to 114, which represents the GDP per capita in thousands of dollars. However, the balance of observations

Table 14 Hypothesis 2 Summary Statistics for Independent Variables, 2009-2013

| Variable Type | Variable | Variable Name | Minimum | Median | Maximum | SD | *n* |
|---|---|---|---|---|---|---|---|
| Independent | Population size | LN Pop. | 10.033 (92,754) | 13.770 (955,775) | 16.120 (10,017,068) | 1.325 | 391 |
| Independent | Minority population | Minority County | 0 | 0 | 1 | 0.210 | 391 |
| Independent | Private benefit nonprofit | % Nonwhite | 0% | 34.124% | 79.161% | 18.163% | 391 |
| Independent | Median household income | LN MHI | 10.426 ($33,710) | 10.877 ($52,920) | 11.438 ($92,754) | 0.219 | 391 |
| Independent | State GDP | GDP | 82.215 | 96.642 | 113.905 | 9.061 | 391 |

between minority counties and non-minority counties means the dataset is skewed towards fewer non-minority counties. Over the entire panel, there are only 21 instances of a minority county. The median percentage of non-white residents in a county is approximately 32%, and the percentage reaches a high of 79.2% for one year. The summary statistics for the dependent and control variables are the same as in the previous chapter since the sample is comprised of the same 391 observations representing 85 different organizations from 2009 to 2013. Table 15 provides a correlation matrix of the dependent, independent, and control variables used in this chapter's analysis.

Table 15 Hypothesis 2 Correlation Matrix

| | Variables | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | ER[1] | | | | | | | | | | | |
| 2 | ROA[1] | 0.34* | | | | | | | | | | |
| 3 | MOS[1] | 0.04 | 0.00 | | | | | | | | | |
| 4 | MU[1] | 0.07 | 0.30* | 0.06 | | | | | | | | |
| 5 | ML[1] | 0.08 | -0.06 | 0.30* | -0.09 | | | | | | | |
| 6 | Change in ML[1] | 0.01 | 0.02 | 0.03 | 0.25* | 0.28* | | | | | | |
| 7 | LN Pop | 0.04 | 0.04 | -0.09 | -0.26* | -0.10* | -0.01 | | | | | |
| 8 | % Nonwhite | 0.03 | 0.00 | -0.05 | -0.15* | -0.10* | 0.00 | 0.52* | | | | |
| 9 | Minority County | 0.03 | 0.04 | -0.03 | 0.06 | -0.02 | 0.04 | -0.03 | -0.03 | | | |
| 10 | LN MHI | 0.01 | 0.02 | -0.09* | -0.08 | 0.08 | 0.00 | 0.27* | 0.27* | 0.10* | | |
| 11 | GDP | 0.01 | -0.03 | -0.12* | 0.01 | 0.01 | 0.02 | -0.03 | -0.03 | 0.00 | -0.01 | |
| 12 | NP Density | 0.08 | -0.23* | 0.15* | -0.11 | 0.16* | 0.05 | -0.17* | -0.20* | -0.05 | -0.14* | 0.03 |
| 13 | SQ Mark up | 0.04 | 0.01 | 0.87* | 0.17* | 0.18* | 0.05 | -0.19* | -0.12* | 0.00 | -0.16* | -0.11* |
| 14 | HHI | 0.00 | -0.05 | 0.01 | -0.11* | 0.05 | -0.02 | 0.21* | 0.10* | -0.09* | 0.07 | 0.00 |
| 15 | LN Inv. Inc. | 0.17* | 0.20* | 0.13* | 0.32* | 0.02 | 0.00 | -0.20* | -0.09* | 0.08 | -0.07 | -0.09 |
| 16 | Surplus | 0.02 | 0.17* | 0.04 | 0.10* | -0.09 | 0.12* | 0.06 | 0.06 | 0.10* | 0.04 | 0.02 |
| 17 | Debt ratio | -0.71* | -0.17* | -0.04 | 0.00 | -0.04 | 0.03 | -0.01 | -0.01 | -0.03 | 0.04 | -0.05 |
| 18 | Size | 0.24* | 0.26* | 0.08 | 0.33* | -0.07 | 0.04 | -0.27* | -0.20* | 0.10* | -0.14* | 0.02 |
| 19 | Age | 0.12* | 0.13* | -0.01 | 0.22* | -0.16* | 0.01 | -0.24* | -0.20 | 0.07 | -0.03 | 0.07 |
| 20 | Performing arts/museum | 0.09* | -0.01 | -0.05 | 0.10* | -0.13* | -0.02 | -0.17* | 0.07 | 0.14* | -0.15* | -0.02 |

[1]Dependent variable; * $p<0.5$

Table 15 Hypothesis 2 Correlation Matrix cont'd

| | Variables | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 |
|---|---|---|---|---|---|---|---|---|---|---|
| 12 | NP Density | | | | | | | | | |
| 13 | SQ Mark up | -0.16* | | | | | | | | |
| 14 | HHI | 0.20* | -0.06 | | | | | | | |
| 15 | LN Inv. Inc. | -0.09* | 0.14* | -0.25* | | | | | | |
| 16 | Size | -0.21* | 0.15* | -0.27* | 0.52* | | | | | |
| 17 | Surplus | 0.07 | 0.03 | 0.07 | 0.06 | 0.11* | | | | |
| 18 | Debt ratio | -0.01 | -0.01 | -0.05 | -0.03 | -0.18* | 0.02 | | | |
| 19 | Age | -0.25* | -0.00 | -0.29* | 0.40* | 0.39* | 0.03 | -0.03 | | |
| 20 | Performing arts/museum | -0.21* | 0.01 | -0.23* | -0.04 | -0.08 | -0.06 | 0.11* | 0.07 | |

* $p<0.5$

Results

*Hypothesis 2a*

As stated in Hypothesis 2a, I expect that nonprofits located in areas with greater population size had greater financial health. Table 16 shows the regression model results when the lagged values for the percentage of nonwhite residents in a county only since models with both minority variables resulted in very high standard errors for months of spending and mark up. As seen in Tables 16 and17 below, however, the relationship between population size and the financial health variables is not consistent. The coefficient for population size bears the hypothesized direction only in the models where equity ratio and return on assets are the dependent variables when the minority population variable is % Nonwhite or minority county. Although the models bear the expected directions, the coefficients are not statistically significant. In the remaining models with the other outcome variables, population size has negative coefficients in the regressions. The coefficient for population size is negative and significant at the 0.05 significance level with months of liquidity, which represents current-term financial health. For each 10% increase in total population in a county, months of liquidity declines by 0.25 months or approximately 7.5 days. When the dichotomous variable for minority population is the race variable included in the regression analyses, the coefficients for population size have similar directions and significance, as seen in Table 17. In these models, population bears the expected directions for the long-term financial health measures equity ratio and return on assets, but again, these results are not statistically significant and cannot be generalized to the population of arts nonprofit organizations. The relationships between the remaining financial health outcome measures at the current and short-term time periods are all negative, similar to

Table 16 Regression Results for Population Characteristics with Percentage Nonwhite Residents

| Variables | (7a) ER | (7b) ROA | (7c) MOS | (7d) MU | (7e) ML | (7f) Change in ML |
|---|---|---|---|---|---|---|
| LN Pop. | 0.094 | 0.022 | -33.240 | -38.960 | -2.572** | -0.519 |
| | (0.260) | (0.101) | (22.860) | (28.580) | (1.095) | (0.491) |
| % Nonwhite | -0.859 | 0.026 | -4.803 | 44.820 | -1.787 | 1.498 |
| | (1.094) | (0.381) | (40.080) | (76.110) | (5.108) | (1.312) |
| LN MHI | 0.301 | 0.066 | -45.560 | -3.505 | 2.385 | -0.597 |
| | (0.859) | (0.462) | (38.510) | (46.870) | (4.167) | (1.169) |
| State GDP | 0.011 | 0.016 | 0.107 | 0.586 | 0.117 | 0.049 |
| | (0.022) | (0.020) | (0.758) | (2.766) | (0.186) | (0.093) |
| SQ Markup | | | | 0.228 | | |
| | | | | (0.432) | | |
| NP Density | 2.447 | 0.170 | -27.150 | 43.020* | 1.497 | 0.568 |
| | (2.192) | (0.170) | (31.930) | (24.270) | (1.194) | (0.401) |
| HHI | -2.043 | -0.432 | -69.520 | -19.740 | -1.781 | 0.636 |
| | (1.938) | (0.378) | (57.630) | (64.630) | (6.281) | (2.747) |
| LN Inv. Inc. | -0.002 | 0.019 | -0.373 | 1.885 | 0.0175 | -0.023 |
| | (0.014) | (0.014) | (0.808) | (2.134) | (0.130) | (0.059) |
| Size | 0.546 | 0.056 | 14.240** | 18.110* | -0.194 | 0.091 |
| | (0.351) | (0.066) | (7.118) | (10.050) | (0.297) | (0.189) |
| Surplus | 0.148 | -0.060 | -51.060 | 12.130 | -1.348 | 0.763 |
| | (0.177) | (0.127) | (33.810) | (22.500) | (2.437) | (1.460) |
| Debt ratio | 0.063 | 0.046** | 1.149 | 3.450** | -0.162** | 0.065* |
| | (0.045) | (0.019) | (0.737) | (1.465) | (0.0672) | (0.039) |
| Age | 1.175*** | 0.010 | -0.157 | 1.004 | -0.153* | -0.009 |
| | (0.037) | (0.010) | (0.789) | (0.834) | (0.080) | (0.018) |
| Performing arts or museum | 0.117 | -0.097 | -0.737 | 17.050 | -2.550* | -0.426 |
| | (0.132) | (0.228) | (8.807) | (20.620) | (1.421) | (0.596) |
| Constant | -41.11** | -2.817 | 840.200 | 292.500 | 10.690 | 8.094 |
| | (15.91) | (5.535) | (622.300) | (711.800) | (56.650) | (18.160) |
| R-squared | 0.126 | 0.053 | 0.245 | 0.086 | 0.109 | 0.014 |
| Method | FE | RE | FE | RE | RE | Pooled |

*n*=391; Robust standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1
Probability weights used in FE and pooled; Years omitted

Table 17 Regression Results for Population Characteristics with Minority County

| Variables | (8a) ER | (8b) ROA | (8c) MOS | (8d) MU | (8e) ML | (8f) Change in ML |
|---|---|---|---|---|---|---|
| LN Pop. | 0.077 | 0.020 | -33.421 | -36.620 | -2.729* | -0.480 |
| | (0.257) | (0.096) | (23.195) | (25.281) | (1.107) | (0.469) |
| Minority county | 0.449 | 0.165 | 12.477 | 36.031 | 1.753 | 2.476** |
| | (0.395) | (0.140) | (8.604) | (33.106) | (3.455) | (1.041) |
| LN MHI | 0.477 | 0.045 | -43.627 | -8.225 | 2.164 | -0.993 |
| | (0.915) | (0.462) | (38.117) | (47.243) | (4.099) | (1.137) |
| State GDP | 0.011 | 0.016 | 0.124 | 0.753 | 0.115 | 0.055 |
| | (0.022) | (0.021) | (0.771) | (2.723) | (0.187) | (0.091) |
| SQ Markup | | | | 0.264 | | |
| | | | | (0.428) | | |
| NP Density | 2.426 | 0.180 | -26.940 | 45.097* | 1.582 | 0.705* |
| | (2.180) | (0.170) | (31.754) | (24.277) | (1.192) | (0.397) |
| HHI | -2.040 | -0.435 | -69.999 | -20.691 | -1.770 | 0.649 |
| | (1.942) | (0.379) | (57.999) | (63.981) | (6.288) | (2.732) |
| LN Inv. Inc. | -0.000 | 0.019 | -0.366 | 1.886 | 0.0151 | -0.029 |
| | (0.014) | (0.014) | (0.793) | (2.125) | (0.130) | (0.057) |
| Size | 0.547 | 0.054 | 14.260** | 17.605* | -0.197 | 0.057 |
| | (0.351) | (0.066) | (7.138) | (9.966) | (0.298) | (0.180) |
| Surplus | 0.152 | -0.064 | -51.111 | 11.610 | -1.412 | 0.612 |
| | (0.180) | (0.126) | (33.753) | (22.810) | (2.426) | (1.488) |
| Debt ratio | 0.063 | 0.046** | 1.146 | 3.376** | -0.160* | 0.063 |
| | (0.048) | (0.019) | (0.737) | (1.430) | (0.066) | (0.039) |
| Age | 1.175*** | 0.010 | -0.183 | 0.967 | -0.152* | -0.010 |
| | (0.036) | (0.010) | (0.785) | (0.853) | (0.077) | (0.018) |
| Performing arts or museum | 0.092 | -0.102 | -0.874 | 17.776 | -2.694 | -0.515 |
| | (0.129) | (0.230) | (8.476) | (21.779) | (1.442) | (0.627) |
| Constant | -43.090** | -2.554 | 818.492 | 317.047 | 14.753 | 12.126 |
| | (16.856) | (5.604) | (602.415) | (706.458) | (56.149) | (17.438) |
| R-squared | 0.127 | 0.053 | 0.246 | 0.084 | 0.151 | 0.017 |
| Method | FE | RE | FE | RE | RE | Pooled |

*n*=391; Robust standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1
Probability weights used in FE and pooled; Years omitted

the models that have % Nonwhite. With each 10% increase in population in a county, months of liquidity declines by 0.26 months. Overall, Hypothesis 2a does not receive support.

*Hypothesis 2b*

The next sub-hypothesis states that arts nonprofits located in counties with smaller minority populations are more likely to have higher financial health outcomes compared to other arts nonprofits that had higher minority populations. The independent variable % Nonwhite bears the expected sign for three of the outcome variables: equity ratio, months of spending, and months of liquidity. However, the coefficients are not significant, so statements cannot be made about the financial health outcomes of arts nonprofit organizations located in counties with larger or smaller populations of minority residents. In Table 17, the results displayed show that minority counties have higher mean values for all six measures of financial health than non-minority counties, holding all else constant, which contradicts the hypothesis that arts nonprofits located in areas of greater minority populations have poorer financial health. The coefficients for minority county are positive and significant for change in months of liquidity only. The coefficient indicates that arts nonprofits located in minority counties had a mean change in months of liquidity that was 2.48 higher than their counterparts not located in minority counties. Taken together, the models in Tables 16 and 17 do not support Hypothesis 2b. The dichotomous measure minority county is positively related to all outcome measures whereas % Nonwhite is positively related to some of the financial health measures.

*Hypothesis 2c*

The last sub-hypothesis regarding socioeconomic characteristics is Hypothesis 2c, which states that wealth is positively related with financial health outcomes over the recessionary period. The two independent variables used to capture income in an area is the logarithm of median household income and state GDP. Including both measures of wealth in the regression models does not impact the standard errors, so I include both independent variables in the models. To begin, median household income does not have a consistently positive or negative relationship with the six financial health measures. The results displayed in Tables 16 and 17 indicate that median household income has a positive relationship with equity ratio, return on assets, and months of liquidity in the sample only, holding the other variables constant. Although these coefficients meet the hypothesized directions, they are not significant. To provide one indication of the effect size, however, a 10% increase in median household income in a county increased equity ratio by 0.03 and 0.05 in Tables 16 and 17, respectively, all else held constant. Median household income and the two measures for short-term financial health and change in months of liquidity are negatively related. The results in Table 16 indicate that months of spending, mark up, and change in months of liquidity decrease by 4.34, 0.33, and 0.06 units, respectively, with each 10% increase in median household income when the other variables in the models are held constant. The directions of the relationships between median household income and months of spending, mark up, and change in months of liquidity are the same in Table 17 with minority county in the analysis. The results are not statistically significant, suggesting that there is no relationship between median household income and the current, short, and long-term financial health outcomes of arts nonprofit organizations.

The regression results for state GDP and the six financial health outcome measures are nearly identical in Tables 16 and 17 when % Nonwhite and minority county are the included race variables, respectively. State GDP is positively associated with all financial health outcome measures. Equity ratio, return on assets, months of spending, mark up, months of liquidity, and change in months of liquidity increase by approximately 0.001, 0.002, 0.01, 0.06 or 0.07, 0.01, and 0.005, respectively, with each one-unit increase in state GDP, ceteris paribus. Although the directions of the relationships between state GDP and financial health meet the hypothesized directions, they are not statistically significant. Hypothesis 2c does not receive support.

*Control Variables*

Only select control variables reach statistical significance in the models shown in Tables 16 and 17. Nonprofit density is positively associated with the dependent variables, not including months of spending. In Model 7d and 8d where the dependent variable is mark up, nonprofit density is positively and significantly associated with the outcome variable at the 0.1 significance level. When % Nonwhite is the race variable in the model, a one-unit increase in nonprofit density, or the number of nonprofit organizations per 10,000 residents, corresponds with a 43.02 increase in mark up, holding the other variables constant. When minority county is the included race variable, mark up increases by 45.1 units for each one-unit increase in nonprofit density, all else held constant. Nonprofit density is also positively related to change in months of liquidity at the 0.1 significance level, with one-unit increases in nonprofit density associated with 0.71 increase in change in months of liquidity for arts nonprofit organizations, holding all else constant.

Organizations with diversified revenue sources are widely perceived as having greater financial health and stability. In line with this, the coefficient for the HHI revenue concentration index is only positive for change in months of liquidity. Although the direction of the relationships generally meets expectations, the coefficients are not statistically significant. Investment income and the financial health dependent variables display both positive and negative relationships, with investment income being positively related to return on assets, mark up, and months of liquidity, and negatively with the remaining dependent variables. The next control variable included in the models is size, or the natural logarithm of total assets. Except for Model 7e where months of liquidity is the dependent variable, size has a positive relationship with financial health. The coefficients are statistically significant at the 0.05 significance level for months of spending and the 0.1 significance level for markup as well. For each 10% increase in size, or total assets, months of spending increased by approximately 1.4 months, ceteris paribus. The coefficient for mark up indicates that a 10% increase in size corresponded with a approximately 1.7 unit increases in mark up, or profitability, when % Nonwhite and minority county are the race variables. I expected that size would be positively associated with the financial health measures, since larger organizations tend to have greater financial stability. The negative, but not significant, coefficient for months of liquidity is still surprising, however. This indicates that for each 10% increase in size, months of liquidity decreased by 0.02 months, which could be the case if the assets of larger organizations were mostly non-liquid assets.

Surplus is calculated as the proportion of net income to total revenue. In the regression models in Tables 16 and 17, surplus is positively associated with equity ratio, mark up, and change in months of liquidity, and is negatively associated with return on assets, months of spending, and months of liquidity. The coefficients are not statistically significant. Debt ratio

yields additional findings in these models that are contrary to expectations. Excluding months of liquidity, debt ratio yields a positive relationship with all measures of financial health, and is significant for return on assets, mark up, months of liquidity, and change in months of liquidity in Table 16. Debt ratio yields significant and positive coefficients in Table 17 when the dependent variables are return on assets, mark up, and months of liquidity. The coefficients indicate that as the ratio of total liabilities to total assets increased by one, there were 0.05 and 3.4 increases in return on assets and mark up, respectively, all else held constant. Each one unit increase in debt ratio is associated with a 0.16 decline in months of liquidity, holding the other variables constant, while there was a 0.07 decline in change in months of liquidity for each one unit increase in debt ratio when % Nonwhite is the included race variable.

The next control variable, age, does not have a consistent relationship with the outcome variables. I expected that older arts nonprofits would have greater financial health, in line with findings from previous research on financial vulnerability. Indeed, the coefficient on age is significant and positive in the models where equity ratio is the dependent variable, indicating that for each additional year in age, equity ratio increased by 1.18 units. This relationship is significant at the 0.01 significance level. However, older organizations only had statistically significant greater financial health when equity ratio is the outcome variable. For months of liquidity, older organizations were less financially healthy because each year in age reduced months of liquidity by 0.15 months, all else held constant. Finally, performing arts nonprofits and museums have different funding patterns that could have impacted their financial health differently compared to other arts organizations. These models with demographic variables show that performing arts entities and museums had statistically significant lower financial health at the 0.10 significance level, all else held constant, when months of liquidity is the outcome

variable and % Nonwhite is the racial variable of interest. The mean months of liquidity for performing arts organizations and museums was 2.55 lower than other arts nonprofits. Status quo mark up is positively associated with mark up in all models testing the second group of hypotheses.

## Discussion

The relationships between population characteristics, such as total population, minority population, and median household income, state GDP, and the six financial health measures do not confirm the second hypothesis that arts nonprofit organizations that are located in more supportive socio-economic environments have better financial health outcomes. This hypothesis is based on studies of organizational ecology and nonprofit formation and closure. Nonprofit organizations in supportive socio-economic environments are expected to have more environmental resources to draw on. However, the results of the statistical analyses either do not confirm or refute the second group of hypotheses. For instance, the coefficient for population size is negatively related to months of liquidity only. One explanation for this result may be related to the analyses covering years that include the Great Recession. During the downturn, arts nonprofit organizations in counties with higher populations may have had declines in their liquid assets, such as cash, that could be used to cover liabilities. The Great Recession is a time period known for increased demand for services on nonprofit organization in general, so the negative coefficients may indicate that arts nonprofits had to spend down their liquid assets in order to meet demand. Additionally, arts nonprofits spent down liquid assets to cover revenue losses during the recession (McCambridge, 2017).

Next, based on the results, the relationship between the racial makeup of a county also goes against expectations because counties with at least 65% or more of nonwhite residents had higher mean financial health values compared to non-minority counties in the sample. Race may play a factor in providing more supportive environments for nonprofit organizations by creating diverse demand for services, thereby supporting the nonprofit sector. This relates to the government failure theory of nonprofit formation whereby minority groups desire varying levels of services (Steinberg & Powell, 2006). The calculation of nonwhite residents in a county in the analyses is based on all nonwhite ethnicities included in the Census, such as African American, Asian and Pacific Islander, Native American, and so on. Each of these groups may consume art in different ways, and this diversity of demand can help boost the arts nonprofit subsector. Among human service nonprofits, racial diversity has been found to be positively associated with the size of the human service nonprofit sector or nonprofit formation (Ahn, 2010; Corbin, 1999). It is feasible that having more nonwhite residents in an environment would have financial health benefits for nonprofit organizations as well. For the sample, earned income generally increased over the recessionary period as well, which may indicate an organizational focus on audience engagement to bring in more earned revenue. Race would not have had a negative impact on financial health if the organizations in the sample were able to capitalize on the socio-economic characteristics where they are located. Although the results of the statistical analyses are not statistically significant, a deeper analysis may be necessary.

Another reason why the results do not meet expectations may be because there are government grants at the federal, state, and local levels that have the express purpose of bringing the arts to disadvantaged and underserved communities. One of the main types of funding opportunities from the National Endowment for the Arts (NEA) is the Challenge America Fast-

Track grant that works to minimize unequitable access to the arts due to "geography, ethnicity, economics, or disability" (n.a., 2012b, p. 5). The other main funding opportunity from the NEA is the Art Works grant that supports educational programs, new technologies to build audience engagement, and the creation of other artworks (n.a., 2012b). Approximately 90% of state appropriations from the NEA to state arts agencies is calculated using formulas based on population (n.a., 2012b) as well. State and local government agencies can also choose to fund arts organizations based on socioeconomic need. As a result, the interaction between arts nonprofits and local populations of individuals may work differently than originally perceived and any endogeneity resulting from the omission of factors such as public support of low-income or minority populations may have contributed to the results observed in this chapter as well.

The hypotheses for the measures of local wealth, including median household income and state GDP, are based on the limited number of studies that include environmental variables in their analyses of nonprofit financial health. While the regression coefficients for GDP were positive in the regression models, indicating a positive relationship between state wealth and arts nonprofit financial health outcomes, the coefficients were not significant and so cannot be generalized beyond the survey sample. The positive relationship is consistent with Prentice's (2015) previous work that also found a positive relationship between state GDP and financial health of human service organizations. However, the findings for median household income suggest that, although not generalizable to the population of arts nonprofit organizations, that there may be negative relationships between income and certain financial health outcomes. Nonprofit literature from organizational ecology rather than nonprofit finance may provide additional insights about this relationship. Although several studies show that there is a positive relationship between local wealth and the creation of nonprofit entities as well as a positive

relationship between local wealth and nonprofit survival (e.g., Saxton & Benson, 2005; E. T. Walker & McCarthy, 2010), there may be a negative relationship between poverty or income and the size of the nonprofit sector (Grønbjerg & Paarlberg, 2001; Lecy & Van Slyke, 2012; Matsunaga & Yamauchi, 2004). If survival and formation provide any indication, then the relationship between local income and financial health measures could also be an inverse relationship. Studies incorporating a larger sample size in order to incorporate even more diversity in terms of income may provide more concrete results.

The directions of the relationships between certain control variables met expectations, while others did not. Nonprofit density has a positive and significant association with financial health when the outcome measure is mark up. The relationships between nonprofit density and survival and organizational formation from which I draw the hypotheses are inconsistent, but the findings of this research is consistent with the studies that find that density and nonprofit and other organizational founding rates have positive associations (Baum & Oliver, 1996; Saxton & Benson, 2005). In any case, nonprofit density has not yet been included in environmental studies of nonprofit financial health, so its relationship to financial health is not yet fully understood. The relationship between the revenue concentration index and the six financial health measures are generally negative. Although not significant, these results correspond with previous findings that revenue diversification can be used by nonprofit organizations to obtain financial stability (e.g., Carroll & Stater, 2009).

In the regression models in this chapter, investment income bears both positive and negative relationships with the different outcome measures, although these do not reach significance. Surplus also has mixed relationships with the financial health of the arts nonprofit organizations in the sample, but these do not reach statistical significance either. Size, debt ratio,

and age do reach statistical significance for select dependent variables. Larger organizations had higher financial health outcomes when the outcome measures are the short-term measures of months of spending and mark up. The goal of nonprofit organizations in the short-term are to be resilient against financial shocks (Bowman, 2011c), and the findings of this analysis reveal that larger arts nonprofits are in a stronger position to do so. Similarly, performing arts nonprofits and museums have lower months of liquidity than other arts organizations, which indicates that performing arts organizations and museums have fewer liquid assets to cover current obligations.

Debt ratio and age both have inconsistent relationships with the financial health measures. Debt ratio is positively and significantly related to return on assets and mark up, but negatively and significantly with months of liquidity. Age is also positively and significantly related to a measure of long-term financial health, equity ratio, but bears a negative relationship with months of liquidity, a measure of current-term financial health for nonprofits. The coefficients indicate that arts nonprofits that have higher debt ratios and that are older have better short and long-term financial health outcomes and are thus in stronger positions to grow by maintaining or expanding their levels of service delivery and weathering financial shocks (Bowman, 2011c). The finding that older organizations have better financial health is consistent with previous research that age is positively associated with financial health measures such as survival (e.g., Fernandez, 2008). Debt ratio and age are both negatively related to months of liquidity, however, which indicates that arts nonprofits with higher debt to assets ratios and that are older are not as financially healthy when needing to meet current-term obligations. Liability of adolescence is a documented phenomenon where younger organizations are more likely to close, so this finding is consistent with previous research (Hager, 1998). The negative relationship between debt ratio and months of liquidity meets expectations since organizations

with higher levels of debt must allocate more resources to pay off the debt. But the positive relationships between debt and return on assets and mark up also seem to suggest that debt can be used to help aid financial stability and growth. The findings that debt ratio and financial health are positively associated reflects the findings in Chapter 3.

## Summary

Based on the findings of previous studies that utilize an organizational ecology framework, I hypothesized that arts nonprofits located in supportive socioeconomic environments, or those located in counties with higher populations, lower minority populations, and higher wealth, would have higher financial health outcomes. Based on the analyses of demographic information and financial data of the same survey sample used in Chapter 3's analyses, I do not find evidence that being in a socioeconomic environment is related to arts nonprofit financial health. In fact, I find limited evidence that refutes the hypotheses I set forth. More specifically, population in a county is negatively related to months of liquidity, and being in a county that has at least 65% of residents identifying as nonwhite is also positively associated with change in months of liquidity. These are both current-term measures of financial health, meaning that arts nonprofits in more populated counties and in areas with less diversity are less able to meet current obligations and may be more susceptible to financial vulnerability.

# CHAPTER V COLLABORATION

## Introduction

Nonprofit organizations may interact with populations of individuals that are located in their external environment, which can influence financial health, particularly in the current term, as indicated by the results in the previous chapter. However, the interactions with other organizations in the external environment may also be associated with the financial health of arts nonprofit organizations. The term collaboration is used to describe interorganizational relationships. In the nonprofit realm, collaborations are thought of as partnerships through which different financial, human, or other organizational resources are exchanged in order to achieve a goal (Austin, 2000; Ostrower, 2003, 2004). In fact, collaboration and partnership are oftentimes used interchangeably (e.g., AbouAssi, et al., 2016; Amirkhanyan, Kim, & Lambright, 2012), and I do so here as well. For the purposes of this research, I use a definition of collaboration or partnership that is based on that used by Gazley and Brudney (2007) in their research on nonprofit and public partnerships: formal or informal partnerships with other organizations that result in the sharing of financial, human, or other resources and/or jointly-planned or jointly-provided programming.

Indeed, collaboration or partnerships between arts nonprofits and other organizations in general has received much attention, including by funders who want to generate more impact with fewer dollars or to reduce the duplication of services (La Piana, 1997). Collaborating organizations can thereby be able to apply to more funding opportunities, but beyond the increase in funding, arts nonprofits in particular may want to partner with other organizations because of other financial benefits such as reducing costs (e.g., Scheff & Kotler, 1996). Because of this monetary connection, I explore the relationship between collaboration and the financial

health outcomes of arts nonprofit organizations. In this chapter of the dissertation, I first describe the open systems theories of collaboration and outline my hypotheses. Next, I describe the methodology I use to analyze original survey data and nonprofit financial information. After explaining the statistical results, I discuss the findings in context of previous literature.

## Literature Review

Studies that examine collaboration among organizations typically use three key theories to explain why organizations collaborate, assuming that it is a choice that organizations make. One theory is network theory. According to this theory, organizations collaborate simply due to a willingness to collaborate because the organization has experience working with others or they just simply want to work with partners. This desire can in turn be manifested in different ways among nonprofit organizations. For instance, collaboration among human service nonprofits can be based on the personal networks and/or the racial and educational backgrounds of organizational leaders (Galaskiewicz & Shatin, 1981). Among arts nonprofits, the desire to collaborate simply to collaborate can be driven by wanting to connect with others in the arts community, thereby building social capital within the field (Ostrower, 2003; C. Walker, 2004).

Another theory used to explain collaboration is institutional theory. Institutionalism can pertain to external pressures to follow established norms or procedures, or organizational desires for legitimacy that is obtained by following such norms (DiMaggio & Powell, 1983). In other words, the push to collaborate among nonprofit organizations can come from the environment in which they operate if stakeholders, including funders and other organizations, are moving towards an increased use of collaboration. Indeed, there have been more formal requirements by funders for nonprofit partnerships in order to reduce instances of duplicate services or deal with

limited available funds, for instance (La Piana, 1997). Human service nonprofits working in the field of early childhood education have indeed been found to use collaboration as a means to increase legitimacy and social service and arts nonprofits have stated that legitimacy is an express purpose of collaborative efforts (Graddy & Chen, 2006; Ostrower, 2003; Sowa, 2008). Accordingly, institutional pressures to collaborate exist.

Finally, according to the open systems framework and resource dependency theory, collaboration occurs because organizations want to acquire scarce resources (Pfeffer & Salancik, 1978). Bridging strategies are one tactic that organizations can take on to reduce resource dependencies and acquire scarce resources. For instance, co-optation is one bridging strategy whereby one organization brings in representatives from another organization to assist with decision-making and import and/or export influence and other support (Scott, 1992). Co-optation can work to ensure financial or other future support from other organizations, thereby reducing uncertainty (Thompson, 1967). Creating a joint venture is another bridging strategy, in which multiple organizations capitalize on their own strengths in order to come together and work towards a shared goal as a new organization. Organizations can also create an association or coalition. Similar to join ventures, multiple organizations can create an association to pursue a shared goal. However, associations differ from joint ventures because a new organization is not formed to pursue that goal. Rather, the organizations in an association work together "to garner resources, secure information, exercise influence, or obtain legitimacy and acceptance" (Scott, 1992, p. 205). These bridging strategies can simply be referred to as collaboration or partnerships since the different tactics involve the exchange of financial, human, or other organizational resources (Austin, 2000; Gazley & Brudney, 2007; Ostrower, 2003, 2004).

Resource dependency motivations to collaborate can also interact with elements of the other two theories. For instance, the resource dependency theory also states that organizations that are highly reliant on one or two funders can face financial risks in terms of volatility, since loss in funding can be quite detrimental. Similarly, if a nonprofit arts organization is reliant on a funder who requires partnerships as a stipulation for funding, then the arts organization will be compelled to initiate such partnerships. This is an example of how institutionalism and resource dependency can jointly drive collaboration.

Much of the literature on nonprofit collaboration, and arts collaborations in particular, tends to focus on the antecedents of collaboration, characteristics of partnerships and how to improve them, and collaboration's outcomes. For instance, studies utilizing the network, institutional, and resource dependency theories as frameworks for the research typically examine the organizational motivations to collaborate. Again, such drivers of collaboration can include the requirements of funders, the personal networks of staff, demographics and environmental conditions (e.g., Rich, Giles, & Stern, 2001). Shared space or co-location collaborative efforts, for instance, can be the result of nonprofit organizations wanting to be closer to a certain community or resource (Levin, 2017) Collaborative efforts can also be analyzed in terms of how they are characterized. The partnerships can be formal or informal and can take place with organizations that operate in different fields and sectors (Guo & Acar, 2005). Collaborative efforts can also be thought of as diverse efforts than can range from less intense or meaningful to more so. According to Austin (2000), there are stages in collaboration that vary according to factors such as the significance of the effort to strategy and mission, the resources that are involved or exchanged, and the overall complexity of managing the collaboration. Philanthropic collaborations that involve a simple exchange of resources, such as that between a funder and a

recipient, are less intense compared to integrative partnerships that involve the merging of activities and missions. Selden, Sowa, and Sandfort (2006) describe collaborative efforts as a continuum that spans from cooperation, or informal relationships between staff members, to service integration, in which partners work together to jointly provide services to beneficiaries.

These different levels of collaboration require varying levels of organizational resources to implement. For instance, barriers to collaboration exist such as not having the administrative capacity or financial resources to engage in an intense and meaningful partnership. Indeed, other literature discusses how to manage the risks associated with collaboration in order to increase participation in collaborative efforts (e.g., La Piana, 1997; C. Walker, 2004). This preference for collaboration is what Gazley and Brudney (2007) refer to as a normative stance on collaboration and could possibly be due to the perceived beneficial outcomes of collaboration. These desirable benefits include building organizational capacity, diversifying arts participation, the improvement of program offerings, and improved community involvement (e.g., Chandler & Kennedy, 2015; Ostrower, 2003; Scheff & Kotler, 1996).

Nonprofits that collaborate can also gain financial resources (Arya & Lin, 2007; Rich, et al., 2001; Suarez, 2011). This corresponds with the resource dependency motivation to collaborate, as well as the motivations of arts nonprofits to collaborate with other nonprofits, government agencies, and other private and public organizations during the Great Recession. Arts nonprofits also used collaborative efforts to deal with other challenges like changes in audiences and their preferences, increased competition among arts organizations, and declining funding and membership (Cunniffe & Hawkins, 2016; Kavner, 2011). One example of a successful collaboration during the economic downturn is the Lower Manhattan Arts League (LMAL), which was created in 2009 in the Lower Manhattan area of New York City. The

group's collaborative effort allowed the nonprofits to jointly apply for and secure funding, which helped the nonprofits when most were dealing with significant losses in funding (Souccar, 2011). The network created from the partnership enabled the organizational leaders to conduct joint event marketing, fundraising, and advocacy, thereby creating potential cost savings and raising financial funds at the same time (Catton, 2010; Shapiro, 2011). This example of a collaborative effort created in a direct response to the Great Recession highlights how working together can improve the financial standing of arts nonprofits. However, is this positive relationship between collaboration and financial health indicative of other arts nonprofits? Especially in light of the anecdotal stories that came to light during the Great Recession, such as those of LMAL, it is important to understand the direct relationship between collaboration and financial outcomes.

I expect that nonprofit collaboration is also associated with financial health, so the third and final hypothesis is:

> Hypothesis 3: Arts nonprofit organizations that collaborate have better financial health than their counterparts that do not collaborate.

Additionally, partnerships involve the sharing of resources, so financial health improvements may be attributed to sharing financial, human, or other resources. The intensity of partnerships varies according to the extent to which resources are shared by partner organizations as well. As such, I propose that shared resources and financial health are positively related.

> Hypothesis 3a: Collaborating arts nonprofit organizations that share financial resources to a greater extent have better financial health than their counterparts that share financial resources to a lesser extent.

Hypothesis 3b: Collaborating arts nonprofit organizations that share nonfinancial resources to a greater extent have better financial health than their counterparts that share nonfinancial resources to a lesser extent.

## Data

To analyze these hypotheses exploring the relationship between collaboration and financial health, I utilize survey data from the survey described in Chapter 3. The decision to deploy my own survey was driven by the lack of an existing dataset that provides detailed information about collaborative efforts by arts nonprofit organizations. Although the primary survey provides information on collaborative efforts of arts nonprofits from 2008 to 2013, there was survey attrition. As a result, the sample size of 85 organizations dropped to 38 and 16 organizations for Hypotheses 3a and 3b, respectively. Similar to the data I use for the previous chapters, I also utilize different sources of secondary data to examine the relationship between collaboration and financial health of arts nonprofits. I use IRS Form 990 Core Financial Files for quantitative data as well as data from the IRS Business Master File (BMF). I combined the responses from the survey, Form 990s, and BMF to create a longitudinal dataset that covers 2008 to 2013.

## Variable Operationalization

### *Dependent Variables*

The outcome variables for this chapter of the dissertation are the same as in the previous chapters. Meant to reflect the different goals that nonprofit organizations have at different time periods, the six dependent variables reflect the abilities of nonprofit organizations to meet current

obligations, be resilient to financial shocks, and to grow or maintain services in the current, short, and long-term time frames, respectively. Long-term financial health is measured by *equity ratio* and *return on assets*. Short-term financial health is captured by *months of spending* and *mark up*. Finally, current-term financial health is calculated using *months of liquidity* and *change in months of liquidity*. See Table 1 in Chapter 3 for definitions and calculations of the six outcome measures.

*Independent Variables*

There are three key independent variables to test Hypothesis 3. The first is collaboration, which is operationalized in two different ways. First is whether the organization participated in a partnership in a given year. The second is the number of partnerships or collaborations that organizations had. Hypotheses 3a and 3b test the relationship between financial health and the extent to which financial and nonfinancial resources are shared. Financial resources include funding, staff members, volunteers, knowledge on revenue generation, technology, physical spaces, and other. Nonfinancial resources include resources like reputation, organizational networks, knowledge on programs or other areas, and other. To capture these variables, I include a composite measure of shared resources. Using Likert scale responses, survey respondents identified the extent to which their organizations shared financial and nonfinancial resources in their collaborations. I calculated a simple composite variable by averaging the Likert scale responses that ranged from one to five, with one representing never having shared resources and five representing sharing resources to a great extent.

*Control Variables*

I include two chapter-specific control variables to analyze Hypothesis 3. I include *nonprofit density*, or the number of registered nonprofit organizations in a county per 10,000 residents, since there may be greater pressures to collaborate or opportunities to collaborate in areas with higher sectoral density. Partnering with other organizations that do not work in the same field is also more intense due to operating differences such as regulations or performance standards (Selden, et al., 2006). I control for this by including a dichotomous variable for *partner's sector* to capture whether the arts nonprofits worked with other nonprofits. The value is one if the partnership was with other nonprofits and zero if the partnership was with government, for-profit organizations, or informal organizations.[6] The other control variables are the same as the control variables in the previous chapters. I include s*tatus quo mark up* as a control variable when mark up as the outcome variable. I also control for *organizational size, revenue diversification, age, investment income, subsector,* and fiscal *year.* Table 18 displays the chapter-specific independent and control variables.

Methodology

For this chapter, I utilize a difference of means t-test and longitudinal and cross-sectional analyses to test the hypotheses. The means t-test determines whether there are significant financial health differences between the financial health of arts nonprofits that do and do not participate in collaborative efforts. Many of the survey respondents indicated that they participated in collaborative efforts each year, so I conducted propensity score matching

[6] In the proposal, I also stated that I would include the purpose of the collaborative partnership since arts nonprofits that had the specific goal of improving financial health may have been more likely to partake in activities to achieve financial benefits. I constructed this variable based on the respondents' selection of the financial purpose of their partnerships. However, in statistical analyses, financial purpose was omitted from the models due to collinearity.

Table 18 Hypothesis 3-Specific Independent and Control Variable Definitions and Measures

| Variable Type | Concept | Definition | Data Source |
|---|---|---|---|
| Independent | Collaboration | Dichotomous variable<br>• 1 if organization collaborated<br>• 0 if organization did not collaborate<br>Number of collaborative efforts | Survey |
| Independent | Shared financial resources | Likert scale for extent to which financial resources are shared<br>• 1 – Never<br>• 2 – Rarely<br>• 3 – Moderately<br>• 4 – Occasionally or to some extent<br>• 5 – Frequently or to a great extent | Survey |
| Independent | Shared nonfinancial resources | Likert scale for extent to which nonfinancial resources are shared<br>• 1 – Never<br>• 2 – Rarely<br>• 3 – Moderately<br>• 4 – Occasionally or to some extent<br>• 5 – Frequently or to a great extent | Survey |
| Control | Nonprofit density | Number of registered nonprofit organizations per 10,000 residents | BMF |
| Control | Collaborative purpose | Dichotomous variable<br>1 if nonprofit pursued financial purpose<br>0 if nonprofit did not pursue financial purpose | Survey |
| Control | Nonprofit partner | Dichotomous variable<br>• 1 if nonprofit partnered with other nonprofit(s)<br>0 if nonprofit partnered with government, for-profit, grassroots, or other organizational types | Survey |

before conducting the regression analyses since there may be intrinsic differences between collaborating and non-collaborating arts nonprofits. Because panel data analysis requires that the propensity score is constant throughout time periods, I conducted the propensity score matching using the averaged values for covariates that may influence the ability or inclination to partner with other organizations. Larger organizations have more resources to collaborate and nonprofits

may also be more likely to partner with others if they are dependent on funders with collaborative requirements. Thus, I included the average values of total assets and expenditures as measures of size in addition to the average value of total contributions for each organization. The availability of partners in a nonprofit's service area can also influence the decision to collaborate, so I matched on average nonprofit density as well. For collaboration, the type of matching that reduced the bias the most is nearest neighbor Mahalanobis matching. I calculated the probability weight as the inverse of the propensity score to use in fixed effects and pooled regression analyses. Random effects methods do not allow for the inclusion of probability weights.

I use different statistical methods depending on the nature of the data. In this chapter, fixed effects panel data analysis is appropriate when the outcome variables are equity ratio, return on assets, and months of spending; random effects when the dependent variables are mark up and months of liquidity; and pooled regression analyses for change in months of liquidity. These methods are supported by the Hausman and Breusch and Pagan Lagrange-multiplier tests. The sample sizes for Hypotheses 3a and 3b are smallest due to survey attrition, so running analyses as panel data omits key independent variables due to collinearity. Because of this, I use pooled regression analysis to test these two hypotheses. The survey respondents who answered the questions regarding the extent to which they shared financial and nonfinancial resources with their collaborative partners all collaborated, so I do not use the same probability weight as in the analyses testing Hypothesis 3. Instead, I included probability weights based on the sample of respondents that stated they did collaborate and used nearest neighbor Mahalanobis matching to match on average contributions, investments, earned income, age, size, and number of collaborations to balance between responding and nonresponding organizations. As in the

analyses for the previous chapters, I use lagged values for the continuous independent and control models, dollar values normalized to the 2013 value, and clustered robust standard errors.

## Summary Statistics

Table 19 Hypothesis 3 Summary Statistics for Independent and Control Variables, 2009-2013

| Variable | Variable Name | Minimum | Median | Maximum | SD | *n* |
|---|---|---|---|---|---|---|
| Collaboration | Collaborated | 0 | 1 | 1 | 0.336 | 386 |
| | No. Collaborations | 0 | 2 | 41 | 4.989 | 386 |
| Shared financial resources | Financial extent | 1 | 3 | 4 | 0.783 | 167 |
| Shared nonfinancial resources | Nonfinancial extent | 2.333 | 3.333 | 4 | 0.646 | 75 |
| Nonprofit partner | NP Partner | 0 | 0 | 1 | 0.47 | 386 |

The table above displays the summary statistics for the chapter-specific independent and control variables I include in the analysis. The organizations in the sample tended to participate in collaborative efforts each year. Over the years of analysis, there were only 87 instances where the survey respondents indicated that their nonprofit organization did not have any partnerships. The remaining 299 observations had at least one collaborative partnership, so the median value of the dichotomous variable for if a respondent collaborated is equal to 1. The number of collaborative partnerships each year varied between none to 41. The values for shared financial resources vary between one and four while the values for shared nonfinancial resources vary between 2.33 and 3.33. The summary statistics for the extent to which financial and nonfinancial

Table 20 Hypothesis 3 Correlation Matrix

| | Variables | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | ER[1] | | | | | | | | | | | |
| 2 | ROA[1] | 0.34* | | | | | | | | | | |
| 3 | MOS[1] | 0.04 | 0.00 | | | | | | | | | |
| 4 | MU[1] | 0.07 | 0.30* | 0.06 | | | | | | | | |
| 5 | ML[1] | 0.08 | -0.06 | 0.30* | -0.09 | | | | | | | |
| 6 | Change in ML[1] | 0.01 | 0.02 | 0.03 | 0.25* | 0.28* | | | | | | |
| 7 | Collaborated | 0.16* | -0.09* | -0.15* | -0.02 | -0.19* | 0.02 | | | | | |
| 8 | No. collaborations | 0.04 | -0.09* | -0.03 | -0.07 | -0.06 | -0.06 | 0.21* | | | | |
| 9 | NP Density | 0.08 | -0.23* | 0.15* | -0.11 | 0.16* | 0.05 | . | -0.03 | | | |
| 10 | Financial extent | -0.21 | -0.08 | 0.39* | -0.14 | 0.08 | 0.03 | . | 0.16* | -0.12 | | |
| 11 | Nonfinancial extent | 0.05 | -0.05 | -0.07 | 0.03 | 0.03 | -0.02 | -0.03 | 0.06 | 0.58* | 0.44* | |
| 12 | NP Partner | 0.00 | 0.08 | -0.09* | 0.12* | 0.02 | 0.06 | 0.18* | -0.08 | -0.04 | -0.37* | -0.21* |
| 13 | SQ Mark up | 0.04 | 0.01 | 0.87* | 0.17* | 0.18* | 0.05 | -0.06 | -0.05 | -0.16* | 0.11 | 0.29* |
| 14 | HHI | 0.00 | -0.05 | 0.01 | -0.11* | 0.05 | -0.02 | 0.09* | 0.04 | 0.20* | 0.12 | 0.27* |
| 15 | LN Inv. Inc. | 0.17* | 0.20* | 0.13* | 0.32* | 0.02 | 0.00 | 0.06 | 0.06 | -0.09* | -0.28* | -0.19 |
| 16 | Size | 0.24* | 0.26* | 0.08 | 0.33* | -0.07 | 0.04 | 0.13* | 0.03 | -0.21* | -0.01 | 0.01 |
| 17 | Surplus | 0.02 | 0.17* | 0.04 | 0.10* | -0.09 | 0.12* | 0.04 | -0.02 | 0.07 | -0.09 | 0.22* |
| 18 | Debt ratio | -0.71* | -0.17* | -0.04 | 0.00 | -0.04 | 0.03 | -0.10* | -0.04 | -0.01 | 0.08 | 0.28* |
| 19 | Age | 0.12* | 0.13* | -0.01 | 0.22* | -0.16* | 0.01 | 0.08 | -0.12* | -0.25* | 0.03 | -0.17 |
| 20 | Performing arts/museum | 0.09* | -0.01 | -0.05 | 0.10* | -0.13* | -0.02 | -0.21* | -0.03 | -0.21* | -0.20* | -0.62* |

[1]Dependent variable; * p<0.5

Table 20 Hypothesis 3 Correlation Matrix Cont'd

| | Variables | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 |
|---|---|---|---|---|---|---|---|---|---|---|
| 12 | NP Partner | | | | | | | | | |
| 13 | SQ Mark up | 0.02 | | | | | | | | |
| 14 | HHI | -0.08 | -0.06 | | | | | | | |
| 15 | LN Inv. Inc. | 0.11* | 0.14* | -0.25* | | | | | | |
| 16 | Size | 0.14* | 0.15* | -0.27* | 0.52* | | | | | |
| 17 | Surplus | -0.07 | 0.03 | 0.07 | 0.06 | 0.11* | | | | |
| 18 | Debt ratio | 0.07 | -0.01 | -0.05 | -0.03 | -0.18* | 0.02 | | | |
| 19 | Age | -0.05 | -0.00 | -0.29* | 0.40* | 0.39* | 0.03 | -0.03 | | |
| 20 | Performing arts/museum | 0.05 | 0.01 | -0.23* | -0.04 | -0.08 | -0.06 | 0.11* | 0.07 | |

* p<0.5

resources are shared seem to indicate that the responding nonprofits shared nonfinancial resources to a greater extent than financial resources. Nonprofits in the sample also tended to work with partners from multiple sectors. The 386 observations represent 85 arts nonprofit organizations. Of these 85 organizations, 21 collaborated with other nonprofit organizations only. Consequently, the median value for nonprofit partner is zero. The correlations of all included dependent, independent, and control variables used in this chapter are provided in Table 20.

Table 21 Difference of Means T-Test Results for Collaboration

| Outcome Variable | Mean | | t-value | Two-tailed p-value |
|---|---|---|---|---|
| | No Collaborations | Collaborations | | |
| ER | -.565 | .700 | -1.515 | 0.136 |
| | (.833) | (.0499) | | |
| ROA | .594 | .216 | 1.020 | 0.313 |
| | (.365) | (.057) | | |
| MOS | 32.368 | 9.183 | 2.651 | 0.010 |
| | (8.4052) | (2.415) | | |
| MU | 79.469 | 63.018 | 0.689 | 0.491 |
| | (19.527) | (8.737) | | |
| ML | 9.409 | 2.334 | 2.923 | 0.005 |
| | (2.352) | (.572) | | |
| Change in ML | -.020 | .057 | -0.057 | 0.954 |
| | (.879) | (.495) | | |
| *n* | 50 | 336 | | |

Standard errors in parentheses

## Results

### *Hypothesis 3*

Table 21 displays the results for the difference of means t-test. The t-test assumes unequal variances for equity ratio, return on assets, months of spending, and months of liquidity

as supported by Levene's robust test statistic for equal variances. The two-tailed p-value provides the significance level for the null hypothesis that the mean values for the outcome measures for collaborators and non-collaborators are equal to each other. The mean equity ratio for the organizations that did not collaborate over the years of analysis was approximately -0.57, which is lower than the mean equity ratio of 0.7 for collaborating arts nonprofits. However, the p-value is 0.14, which does not meet a 0.1 significance level, so the difference of means between the two groups of arts nonprofits is not significant. Contrary to expectations, the mean return on assets for collaborating nonprofits in the sample of almost 0.6 is lower than the mean return on assets of 0.22 for non-collaborating organizations. The two-tailed p-value indicates that the difference is not statistically significant.

The t-test for months of spending does indicate that the mean months of spending are significantly different, but at the 0.1 significance level. The months of spending for non-collaborating organizations is higher than collaborating organizations, with means of 32.37 and 9.18 months of spending, respectively. The mean mark up of non-collaborating arts nonprofits in the sample is also higher than the collaborating organizations, at 79.47 and 63.02, respectively, although this difference is not significant. The difference in means for months of liquidity is statistically significant, however, at the 0.01 significance level. The mean months of liquidity for non-collaborating entities is 9.41 compared to 2.33 for collaborating entities. Finally, the change in months of liquidity is not significantly different for the two groups, although the mean for non-collaborating arts nonprofits is -0.2 compared to 0.06 for collaborating nonprofits in the sample.

The results of the t-tests seem to suggest that arts nonprofit organizations that do not collaborate may have some financial health outcomes that are better than collaborating arts

Table 22 Regression Results for Collaboration

| Variables | (11a) ER | (11b) ROA | (11c) MOS | (11d) MU | (11e) ML | (11f) Change in ML |
|---|---|---|---|---|---|---|
| Collaborated | 0.012 | 1.476*** | 25.474 | -43.431 | -4.528 | -0.061 |
| | (0.149) | (0.103) | (17.067) | (39.850) | (3.734) | (0.644) |
| SQ Markup | | | | 0.365 | | |
| | | | | (0.77) | | |
| NP Density | 3.350 | 1.674 | -50.656 | 3.520 | -1.078 | 0.064 |
| | (3.055) | (1.357) | (43.628) | (13.892) | (0.883) | (0.238) |
| HHI | -0.027 | -0.009 | -0.791 | -0.266 | -0.034 | 0.007 |
| | (0.026) | (0.008) | (0.640) | (0.651) | (0.070) | (0.025) |
| LN Inv. Inc. | 0.001 | 0.011 | -0.526 | 2.306 | 0.025 | 0.009 |
| | (0.017) | (0.012) | (0.877) | (2.206) | (0.127) | (0.056) |
| Size | 0.660 | -0.051 | 13.418** | 17.704* | -0.179 | 0.048 |
| | (0.430) | (0.214) | (6.633) | (10.546) | (0.393) | (0.125) |
| Surplus | 0.170 | 0.029 | -42.567 | 15.668 | -1.467 | 0.709 |
| | (0.216) | (0.119) | (29.441) | (23.876) | (2.444) | (1.349) |
| Debt ratio | 0.080 | 0.118** | 1.074 | 3.113** | -0.149** | 0.054 |
| | (0.052) | (0.055) | (0.660) | (1.465) | (0.059) | (0.033) |
| Age | 1.192*** | 0.681*** | -0.098 | 1.096 | -0.142* | -0.010 |
| | (0.041) | (0.057) | (0.603) | (0.873) | (0.074) | (0.016) |
| Performing arts or museum | 0.078 | -0.189 | -1.548 | 14.705 | -3.557** | -0.310 |
| | (0.149) | (0.420) | (8.995) | (21.999) | (1.540) | (0.575) |
| Constant | -37.704*** | -17.378*** | -89.346* | -133.164 | 17.402** | -0.170 |
| | (7.133) | (4.030) | (48.127) | (143.732) | (8.018) | (2.995) |
| R-squared | 0.138 | 0.191 | 0.219 | 0.262 | 0.140 | 0.010 |
| Method | FE | FE | FE | RE | RE | Pooled |

*n*=387; Robust standard errors in parentheses

*** p<0.01, ** p<0.05, * p<0.1

Probability weights used in FE and pooled; Years omitted

nonprofits. However, these results do not control for other covariates such as organizational characteristics. To explore the relationship between collaboration and financial health outcomes, I conducted regression analyses with the key independent variable of whether the arts nonprofits collaborated from year to year. Table 22 displays the regression results. These statistical models do not include the control variables nonprofit partner, which is omitted due to collinearity. The mean equity ratio, return on assets, and months of spending are higher for the nonprofits that collaborated than non-collaborating nonprofits, holding the other variables in the model constant. The coefficient for collaborated is positive and significant for return on assets, indicating that the return on assets was 1.48 higher for collaborating organizations than non-collaborating organizations in the survey sample.

The direction of the relationship between having collaborated and mark up, months of liquidity, and change in months of liquidity is negative, however, which goes against the hypothesized direction. Perhaps this is an indicator that there were factors associated with collaborating in the current-term time frame that negatively impacts financial health or that the financial health benefits of collaboration require a longer time frame to come to fruition. Based on these models, Hypothesis 3 that collaboration positively impacted financial health outcomes only receives support when the dependent variable is return on assets, although organizations that collaborated also had higher equity ratio and months of spending. I also use the number of collaborative efforts in a year as the independent variable of interest, the results of which can be seen in Table 23. The control variable nonprofit partner is included in these statistical models because it is not omitted due to collinearity. Hypothesis 3 states that the number of collaborative efforts and financial health of arts nonprofit organizations are positively related. However, this direction of the relationship holds for return on assets, months of spending, and change in

Table 23 Regression Results for Number of Collaborative Efforts

| Variables | (12a) ER | (12b) ROA | (12c) MOS | (12d) MU | (12e) ML | (12f) Change in ML |
|---|---|---|---|---|---|---|
| No. of Collabs. | -0.170 | 0.076 | 7.519** | -2.272 | -0.215* | 0.011 |
| | (0.315) | (0.092) | (3.321) | (1.480) | (0.129) | (0.023) |
| SQ Mark up | | | | 0.396 | | |
| | | | | (0.517) | | |
| NP Partner | 0.012 | 1.474*** | 25.602 | 37.638 | 0.495 | 0.897* |
| | (0.150) | (0.104) | (17.223) | (33.524) | (2.305) | (0.524) |
| NP Density | 3.338 | 1.681 | -51.578 | 3.181 | -1.591 | 0.088 |
| | (3.065) | (1.366) | (44.491) | (13.496) | (0.999) | (0.246) |
| HHI | -0.028 | -0.009 | -0.796 | -0.160 | -0.028 | 0.008 |
| | (0.026) | (0.008) | (0.650) | (0.641) | (0.068) | (0.025) |
| LN Inv. Inc. | -0.000 | 0.011 | -0.493 | 2.541 | 0.045 | -0.002 |
| | (0.017) | (0.013) | (0.881) | (2.265) | (0.133) | (0.058) |
| Size | 0.659 | -0.052 | 13.474** | 19.200* | -0.054 | 0.037 |
| | (0.429) | (0.214) | (6.697) | (10.089) | (0.335) | (0.150) |
| Surplus | 0.171 | 0.028 | -42.591 | 15.707 | -1.112 | 0.770 |
| | (0.219) | (0.119) | (29.453) | (23.261) | (2.478) | (1.343) |
| Debt ratio | 0.080 | 0.117** | 1.080 | 3.626*** | -0.136** | 0.056* |
| | (0.052) | (0.055) | (0.668) | (1.390) | (0.059) | (0.033) |
| Age | 1.192*** | 0.681*** | -0.109 | 0.965 | -0.162* | -0.006 |
| | (0.041) | (0.057) | (0.607) | (0.828) | (0.085) | (0.016) |
| Performing arts or museum | 0.080 | -0.188 | -1.694 | 19.002 | -2.716* | -0.330 |
| | (0.151) | (0.420) | (9.017) | (22.174) | (1.489) | (0.561) |
| Constant | -37.239*** | -16.652*** | -93.770** | -201.278 | 13.242** | -0.448 |
| | (6.462) | (4.024) | (45.725) | (138.770) | (6.460) | (3.332) |
| R-squared | 0.138 | 0.183 | 0.217 | 0.252 | 0.111 | 0.010 |
| Method | FE | FE | FE | RE | RE | Pooled |

*n*=387; Robust standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1
Probability weights used in FE and pooled; Years omitted

months of liquidity only. The coefficient for months of spending is significant at the 0.05 significance level, indicating that months of spending increased by 7.52 months for each additional collaborative effort, ceteris paribus. However, the number of partnerships is also negatively related with equity ratio, mark up, and months of liquidity, the latter being significant at a 0.1 significance level. The negative and positive relationships with financial health are not consistent, since the independent variable is both positively and negatively associated with the different outcome measures. In addition, the results for equity ratio contradict the regression results in Model 11a where collaborating arts nonprofits had higher mean equity ratio than non-collaborating arts nonprofits. Consequently, Hypothesis 3 receives very limited support since the findings are only significant when comparing the return on assets for collaborating and non-collaborating arts nonprofits as well as examining the increase in months of spending associated with increasing the number of partnerships an organization takes on.

*Hypothesis 3a*

I expect that among the arts nonprofits that did collaborate, those that shared more financial resources with partners had greater financial health outcomes. Financial resources can include resources with monetary value such as sharing venues or theater space, or knowledge about growing existing or obtaining new funding sources. Table 24 displays the results of the pooled regression analyses testing Hypothesis 3a. There are statistically significant results for return on assets, months of liquidity, and change in months of liquidity, with the directions of the coefficients indicating that there were negative and positive associations between sharing financial resources and these financial health outcomes. As the extent to which financial resources are shared with collaborators increases from, for example, from no extent to a

Table 24 Pooled Regression Results for the Extent to which Financial Resources are Shared

| Variables | (13a) ER | (13b) ROA | (13c) MOS | (13d) MU | (13e) ML | (13f) Change in ML |
|---|---|---|---|---|---|---|
| Financial extent | 0.188 | -0.445** | 8.906 | -20.810 | 3.784* | 1.400** |
| | (0.158) | (0.175) | (6.207) | (17.148) | (2.110) | (0.540) |
| SQ Mark up | | | | 4.068 | | |
| | | | | (2.896) | | |
| NP Partner | 0.035 | 0.046 | -0.476 | 7.985 | 4.788*** | 2.092** |
| | (0.061) | (0.233) | (4.353) | (44.106) | (1.756) | (0.890) |
| NP Density | 0.030 | 0.029 | 1.652 | 15.612 | -2.405** | 0.107 |
| | (0.059) | (0.078) | (2.538) | (15.944) | (1.012) | (0.322) |
| HHI | -0.000 | 0.009 | -0.539 | 1.679 | -0.150 | 0.019 |
| | (0.002) | (0.006) | (0.364) | (1.286) | (0.104) | (0.052) |
| LN Inv. Inc. | 0.032 | -0.032 | 1.388 | 5.123 | 0.655* | 0.298*** |
| | (0.025) | (0.033) | (1.226) | (6.413) | (0.355) | (0.075) |
| Size | -0.033 | 0.221*** | 1.584 | 30.700** | -1.930*** | -0.551** |
| | (0.032) | (0.079) | (1.572) | (12.257) | (0.486) | (0.253) |
| Surplus | 0.102 | -0.165 | 8.240 | 37.139 | 5.436** | 1.471 |
| | (0.078) | (0.157) | (7.466) | (35.100) | (2.302) | (1.779) |
| Debt ratio | -1.026*** | 0.153 | -6.745 | 26.734 | -1.028 | 2.916** |
| | (0.147) | (0.245) | (5.757) | (52.382) | (1.839) | (1.367) |
| Age | 0.008 | -0.009 | -0.305* | 1.329 | -0.145** | -0.012 |
| | (0.008) | (0.009) | (0.170) | (0.961) | (0.065) | (0.028) |
| Performing arts or museum | 0.168 | -0.335 | -10.760 | 62.227 | -6.363** | -0.092 |
| | (0.160) | (0.240) | (7.741) | (39.240) | (2.427) | (0.742) |
| Constant | 0.559 | -1.325 | 0.363 | -449.637** | 32.018*** | 0.344 |
| | (0.560) | (1.406) | (31.989) | (209.261) | (8.529) | (5.415) |
| R-squared | 0.314 | 0.255 | 0.316 | 0.329 | 0.287 | 0.068 |

*n*=167; Robust standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1
Probability weights used; Years omitted

moderate extent, return on assets declines by 0.45 units, holding all else constant. The current-term measures of financial health, months of liquidity, and change in months of liquidity, are both positively related to the key independent variable of interest. As the extent to which financial resources are shared increases one unit, months of liquidity and change in months of liquidity increase by 3.78 and 1.4 months, respectively. Equity ratio and months of spending are positively related to financial extent and mark up is negatively related to financial extent. These two positive relationships are not statistically significant. Therefore, Hypothesis 3a only receives support when the current term measures of financial health are the outcome measures.

*Hypothesis 3b*

The final hypothesis of the dissertation is Hypothesis 3b, which states that arts nonprofits that share nonfinancial resources with their collaborative partners to a greater extent have better financial health than their counterparts that share these resources to a lesser extent. The expected direction of the relationship between the independent variable nonfinancial extent and the six outcome variables is positive. However, as seen in Table 25, nonfinancial extent had a negative relationship with all financial health measures, excluding return on assets. The coefficient on nonfinancial extent is also significant at the 0.1 significance level in Model 14c for months of spending. The coefficient on the independent variable indicates that as the extent to which nonfinancial resources are shared increases by one unit on the Likert scale, months of spending decreases by 10.83 months, holding the other variables in the model constant. Shared nonfinancial resources such as organizational networks and reputation were thought to positively influence financial health because a key component of collaboration is the sharing of resources in general. It was believed that these nonfinancial resources could also have been used to bolster

Table 25 Pooled Regression Results for the Extent to which Nonfinancial Resources are Shared

| Variables | (14a) ER | (14b) ROA | (14c) MOS | (14d) MU | (14e) ML | (14f) Change in ML |
|---|---|---|---|---|---|---|
| Nonfinancial extent | -0.073 | 0.242 | -10.831* | -27.514 | -5.162 | -1.394 |
| | (0.064) | (0.389) | (6.172) | (46.151) | (3.119) | (1.387) |
| SQ Mark up | | | | 0.465 | | |
| | | | | (3.426) | | |
| NP Partner | -0.032 | -0.060 | 0.451 | -60.439 | 6.598** | -0.055 |
| | (0.049) | (0.337) | (5.514) | (41.104) | (2.908) | (1.117) |
| NP Density | -0.031 | -0.268 | 8.147*** | -13.610 | -1.111 | -0.309 |
| | (0.038) | (0.186) | (2.258) | (22.674) | (1.181) | (0.475) |
| HHI | 0.001 | -0.001 | 0.174 | 0.482 | 0.214* | 0.030 |
| | (0.002) | (0.011) | (0.113) | (1.406) | (0.107) | (0.067) |
| LN Inv. Inc. | -0.002 | -0.052 | 0.606 | -10.526 | -0.049 | -0.172 |
| | (0.007) | (0.048) | (0.541) | (12.240) | (0.488) | (0.222) |
| Size | -0.023 | 0.177 | 2.588 | 18.115 | -2.297** | -0.052 |
| | (0.021) | (0.115) | (1.521) | (14.979) | (0.874) | (0.415) |
| Surplus | 0.016 | 0.148 | 1.423 | 52.834 | 4.044* | 1.357 |
| | (0.027) | (0.309) | (3.295) | (61.092) | (1.922) | (2.285) |
| Debt ratio | -0.495 | 1.312 | 7.607 | 100.493 | 13.607 | 6.873 |
| | (0.349) | (0.778) | (9.694) | (95.139) | (9.000) | (5.128) |
| Age | 0.002 | 0.001 | -0.073 | 3.191* | -0.063 | -0.050 |
| | (0.002) | (0.011) | (0.177) | (1.631) | (0.121) | (0.046) |
| Performing arts or museum | -0.095 | 0.458 | -21.866*** | 44.330 | -10.098** | -0.597 |
| | (0.073) | (0.504) | (6.246) | (45.508) | (3.822) | (1.826) |
| Constant | 1.466*** | -2.400 | -2.109 | -94.538 | 43.202*** | 6.077 |
| | (0.313) | (2.096) | (34.123) | (204.628) | (13.415) | (7.319) |
| R-squared | 0.446 | 0.243 | 0.590 | 0.272 | 0.385 | 0.086 |

*n*=75; Robust standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1
Probability weights used; Years omitted

financial support, which would in turn improve financial health outcomes. Based on these results, though, this is not the case for this sample of organizations. Hypothesis 3b does not receive support.

## Control Variables

Across the regression models in this chapter, all control variables reach statistical significance in at least one of the models. In the models testing Hypothesis 3, the control variables that are statistically significant are size, debt ratio, age, and performing arts or museums. In the models testing Hypothesis 3a, all of the control variables reach statistical significance except for revenue concentration. In the models shown in Table 25 that test Hypothesis 3b, however, investment income and debt ratio do not have a relationship with any of the measures of financial health.

I expected that working with nonprofit partners only would be positively related to financial health outcomes because of lower transaction costs associated with same-sector partnerships. Depending o the model, the control variable nonprofit partner is positively and significantly related to return on assets, months of liquidity, and change in months of liquidity when testing Hypotheses 3 to 3b. The coefficients for Models 12b and 12f indicate that those with only nonprofit partners had mean return on assets and change in months of liquidity that were 1.47 and almost 0.9 higher, respectively, holding all else constant. In Models 13e and 13f, the mean months of liquidity and change in months of liquidity were 4.78 and 2.09 units higher, respectively, for arts nonprofits with only nonprofit partners, all else equal. When testing Hypothesis 3b, nonprofit partner is only significant for months of liquidity at the 0.10 significance level, indicating that arts nonprofits with only nonprofit collaborators had a mean

months of liquidity that was nearly 6.6 months higher than those that had cross-sector partnerships. The direction of these relationships meet expectations.

Nonprofit density has both positive and negative associations with the financial health outcomes in the sample, though I expected nonprofit density to be negatively associated with financial. The results are only significant in the models testing Hypotheses 3a and 3b. In these models, nonprofit density is positively related to months of spending or negatively related to months of liquidity, indicating there may be different correlates of arts nonprofit financial health at different time periods or for arts nonprofits that share financial or nonfinancial resources. Next, similar to the models in previous chapters, having more highly concentrated income portfolios is negatively associated with financial health measures. The exception here is when the outcome variable is change in months of liquidity. These results are not statistically significant, however. Interestingly, these results do not hold for the models testing Hypothesis 3b. Model 14e indicates that arts nonprofits with more concentrated income portfolios have significantly higher months of liquidity.

Increases in investment income are positively associated with improvements in financial health, but only for current-term financial health among arts nonprofits that share financial resources. In Models 13e and 13f, 10% increases in investment income are associated with 0.06 and 0.03 increases in months of liquidity and change in months of liquidity, respectively, all else constant. Size has both negative and positive relationships with financial health. In the models testing Hypothesis 3, the results indicate that larger arts nonprofits have better short-term financial health outcomes compared to smaller arts nonprofit organizations. Similarly, the models testing Hypothesis 3a also support that larger arts nonprofits have better short-term financial health outcomes, although the coefficient is significant for mark up only. In addition to

larger arts nonprofits having advantages in mark up, larger arts nonprofits also have higher return on assets. However, as Models 13e, 13f, and 14e indicate, larger arts nonprofits that share financial or nonfinancial resources with partners have lower current-term financial health measures than smaller arts nonprofits.

The hypothesized direction of the relationship between surplus and financial health is positive and in these models, the expected direction occurs in Models 13e and 14e for months of liquidity only. Debt ratio is both positively and negatively related to financial health among collaborating arts nonprofits. When testing Hypothesis 3, increases in debt ratio are associated with increases in return on assets, mark up, or change in months of liquidity. However, these models also indicate debt ratio is negatively related to months of liquidity. Among arts nonprofits that share financial resources with partners, arts nonprofits with higher debt have lower equity ratios but higher change in months of liquidity, all else held constant.

Next, age also has inconsistent relationships with the outcome variables for collaborating arts nonprofits. While older arts nonprofits had significantly higher equity ratio and return on assets. In Models 11a and 12a, for instance, results indicate that an arts nonprofit that is one year older had equity ratio and return on assets that were 1.19 and 0.68 higher than the younger organization, holding all else constant. Older organizations also had lower months of liquidity, as seen in Models 11e, 12e, and 13e. Older arts organizations that shared financial resources with partners also had lower months of spending than younger arts nonprofits. Among those arts nonprofits that shared nonfinancial resources, older organizations had higher mark ups. As such, the direction of the relationship between age and financial health differs by the nature of the collaboration as well as the time frame of the financial health outcome.

Performing arts nonprofits or museums had lower financial health outcomes when the dependent variable is months of liquidity in the models testing each hypothesis in this chapter. In the models testing Hypothesis 3b, performing arts nonprofits or museums also had poorer financial health when using months of spending as the dependent variable. In this model, for instance, performing arts nonprofits or museums had a mean months of spending that was 21.87 months lower than arts nonprofits in other activity fields, ceteris paribus. Finally, status quo mark up is positively associated with mark up in the models in this chapter, as in all other models with mark up as the outcome variable, although this relationship is not significant in any of the models.

## Discussion

With the third set of hypotheses of the dissertation, I examine the relationship between collaboration and financial health. Collaboration is often touted as a strategy for nonprofits to take on to minimize operating costs and enhance organizational efficiencies. Because these are financial benefits, I hypothesized that collaboration and financial health have a positive relationship. The regression results indicate that, controlling for various organizational covariates, organizations that participated in any form of collaboration had higher mean return on assets compared to arts nonprofits that did not collaborate. However, when using the number of collaborative efforts as the independent variable yielded differing results, where the number of collaborations is positively associated with months of spending, but negatively with months of liquidity. There are costs associated with partnering with other organizations, such as funding, time, and other organizational constraints (Ostrower, 2003). With increasing number of partnerships, there may have also been increasing costs of implementing the partnerships that

impacted financial health differently. In the regression models shown in Table 22, the control variable nonprofit partner is excluded from the analysis due to collinearity. There are difficulties associated with collaborating with partners in different sectors, so the exclusion of this control variable may have influenced the different results displayed in Tables 22 and 23.

The pattern of the regression results testing Hypothesis 3a reveal that sharing financial resources had current-term financial health benefits, since arts nonprofits that shared financial resources to a greater extent had higher outcomes in months of liquidity and change in months of liquidity. This means that these organizations were better able to meet current obligations. At the same time, the results also suggest that sharing financial resources is negatively associated with the return on assets of arts nonprofits. Sharing nonfinancial resources and months of spending have an inverse relationship as well. Collaborative efforts may have involved sharing financial resources immediately, which would have bolstered current-term financial health. However, return on assets and months of spending could have decreased for the arts nonprofits that shared financial and nonfinancial resources to a greater extent.

When calculating return on assets, expenditures are subtracted from total revenue in the numerator and when calculating months of spending, expenditures are in the denominator. As expenses grow for an organization, return on assets and months of spending would shrink if the other components of the calculations remain constant. Collaborative efforts can be costly. If the costs of maintaining collaborative efforts go up without bearing financial returns, return on assets and months of spending would decrease. One study of arts partnerships found that collaborative efforts were particularly difficult for smaller organizations because of the time and financial costs associated with maintaining the partnerships and because funders did not cover the full costs of any required collaborations (Ostrower, 2004). Having more partners and collaborative

efforts would logically cause the expenses associated with managing the collaborations to grow over time, thus impacting long and short-term financial health differently than current-term financial health. This also provides some indication that collaboration does not bolster the ability of arts nonprofit organizations to withstand any shocks to their financing, such as during economic recessions, which is what the short-term financial health variables measure. Based on the results testing Hypotheses 3a and 3b, collaboration can be detrimental to short and long-term financial health of arts nonprofit organizations, although the results from testing Hypothesis 3 indicate that collaborating has a positive relationship with longer-term measures of financial health.

In terms of the control variables, the relationships between certain variables and the six measures of financial health meet expected directions while others do not. Nonprofit density only reaches significance in Models 13f and 14c and display different directions. Among organizations that share financial resources with each other, nonprofit density is negatively related to months of liquidity. Yet among arts nonprofits that share nonfinancial resources with partners, density and months of spending are positively related. As discussed in previous chapters of the dissertation, nonprofit literature displays inconsistent findings for density, and this research is no different. Next, arts nonprofits that work with nonprofit partners only generally had better financial health outcomes compared to arts nonprofits that had cross-sector collaborations. This meets expectations that working with other nonprofit organizations can have fewer constraints due to operational similarities (Selden, et al., 2006).

The findings for the HHI revenue concentration index support the literature that nonprofits with diversified funds have lower financial vulnerability, and that arts nonprofits with diversified funding have lower revenue volatility as well (Greenlee & Trussel, 2000; M. Kim,

2017). Although revenue concentration was negatively associated with financial health outcomes in a majority of these models, the regression analyses for Hypothesis 3b show that revenue concentration is positively associated with months of spending. Perhaps revenue concentration can have financial benefits when the sample is limited to collaborating organizations. This finding is also in line with previous research. Having more concentrated income portfolios can decrease the administrative costs associated with managing multiple funders and revenue streams (Chang & Tuckman, 2010; Frumkin & Keating, 2011). If managing partnerships involve additional administrative expenses, then revenue concentration could be seen as a strategy to keep costs under control. Negative relationships between revenue concentration and financial health align with previous findings that having concentrated revenue sources has negative impacts on financial stability. Furthermore, the economic downturn could have caused losses in a revenue stream. If an arts nonprofit were reliant on that single source, the organization would likely have lower financial health as well.

Investment income is positively related to months of liquidity and change in months of liquidity among collaborating arts nonprofits that share financial resources. In an overall environment of declining charitable contributions and more targeted giving during the recessionary period that benefitted soup kitchens and food banks (McCambridge, 2017), arts nonprofits with more investment income may have been better able to withstand any reductions in private support. Additionally, investment income has been found to be related to reductions in financial volatility and favorable growth rates (Carroll & Stater, 2009; Chikoto & Neely, 2014). A positive relationship between investment income and the dependent variables in this analysis supports these previous studies. The overall relationship between size and financial health also supports previous findings. The results in this chapter indicate that larger arts nonprofits had

greater months of spending, mark up, or return on assets. In the models testing Hypothesis 3a, however, larger arts nonprofits had lower months of liquidity and change in months of liquidity. A study of collaborations among cultural organizations found that in partnerships, larger organizations were more likely to cover more of the costs associated with coordinating the partnerships (Ostrower, 2003). If larger arts nonprofits pay for these costs with liquid assets, then declining current term financial health is a plausible outcome.

Although the expectation is that surplus is positively related to all six financial health variables since nonprofits with higher surplus have lower financial vulnerability (Trussel, 2002). Surplus has a positive association with financial health only when the dependent variable is months of liquidity and the sample is restricted to collaborating entities in Models 13e and 14e. Perhaps this restricted sample received financial health benefits from greater surplus because collaborations can add additional organizational expenditures. Next, debt ratio has both positive and negative relationships with financial health depending on the outcome measure and model. Nonprofits that have higher levels of debt can become "overextended" and liabilities can exceed assets, potentially leading to financial bankruptcy (Bowman, 2002, 2011b). Consequently, the positive relationships between debt ratio and return on assets and mark up seen in Tables 22 and 23 belie initial expectations, but confirms the positive relationship found in previous chapters. Increasing amounts of debt are negatively related to current-term financial health when testing Hypothesis 3, which could be the case if the debt is not used to cover immediate expenditures, but to fund longer-term projects. The pattern of debt ratio being positively related to short and long-term financial health changes when testing Hypothesis 3a, where debt ratio is negatively associated with equity ratio and positively with change in months of liquidity. The use of debt may differ among collaborating arts organizations that participate in partnerships that generally

do not last into the long-term time frame. The median age of partnerships for survey respondents is three years, and long-term time frames generally indicate the period of five to ten years into the future.

The results for age in this chapter support previous research that older organizations are more stable and therefore less likely to experience closure (e.g., Fernandez, 2008). The positive relationship between age and financial health is only evident when the outcome measures are equity ratio and return on assets, however, when testing Hypothesis 3. When the outcome measure is months of liquidity in Models 11e and 12e, and months of spending in Model 13c, older organizations have lower financial health outcomes, which contradicts expectations. Age has been found to interact with organizational characteristics and practices, which may have influenced these results. For instance, there is no difference in the survival rates of older and younger organizations that do not rely on government funding or volunteers (Hager, et al., 2004), so there may be influential factors such as these that are not included in the analyses. Finally, the results reveal that the most consistent relationship between performing arts organizations and museums and the financial health outcome measures is a negative relationship between activity and months of liquidity. These activity fields tend to have higher levels of restricted assets such as real estate, which may affect the availability of liquid assets to meet current obligations.

## Summary

Using survey data and financial information from IRS Form 990s, I tested the key hypothesis that collaboration and financial health of arts nonprofit organizations are positively related. The two sub-hypotheses are that arts nonprofits that share more financial and nonfinancial resources with partners also have better financial health outcomes. Regression

results for the years 2009 to 2013 show some conflicting results, mainly that collaborating arts organizations and arts nonprofits with more partnerships did have higher short-term and long-term financial health outcomes. However, those organizations with more collaborations had lower current-term financial health measures. This conflicts with the findings from the regression results testing Hypotheses 3a and 3b, where the directions of the relationships indicate that sharing financial or nonfinancial resources to a greater extent is associated with declines in short and long-term measures of financial health, but that there can be current-term financial health benefits of sharing more financial resources with partners. In the following chapter, I discuss the limitations for the research I conducted in this chapter and the previous chapters, as well as the overall policy and practice implications of my findings.

# CHAPTER VI CONCLUSION

## Introduction

The main research question that I set forth to answer is how nonprofit organizational strategies impacted the financial health of arts nonprofit organizations. More specifically, what effect did benefit-revenue alignment, demographic and socioeconomic characteristics, and collaboration have on the six financial health measures of: equity ratio, return on assets, months of spending, mark up, months of liquidity, and change in months of liquidity? These research questions are tied together by the notion that, in open system environments, organizations draw resources from the environment. The first set of hypotheses is that arts nonprofits that have benefit-revenue alignment had better financial health outcomes. The second group of hypotheses is that population characteristics such as total population and income are positively related to financial health, but that the population of nonwhite residents in a county is negatively related to the financial health measures for arts nonprofits. Finally, I hypothesized that collaborating arts nonprofits have better financial health, as well as that sharing financial and nonfinancial resources also contribute to more desirable financial health outcomes. While some results provide evidence to support the hypotheses, there are also findings that negate the hypotheses I set forth as well. The purpose of this chapter is to provide an overview of the dissertation and summarize the key points from each preceding chapter. I then discuss the limitations of the research, followed by contributions to and implications for nonprofit theory, practice, and policy. I conclude with directions for future research.

## Dissertation Summary

The motivation for this research comes from the strategies that arts nonprofit organizations took on during the Great Recession. In order to withstand the declines in revenue and unstable investment income, nonprofit organizations purposefully analyzed their revenue sources to identify new revenue sources or income sources that could be grown. Arts nonprofits also took greater interest in examining the demographics of their current audiences and support base, as well as the demographics of potential audience members. Finally, arts nonprofit organizations collaborated with other organizations to reap various benefits, including cost savings and network expansion. These three strategies encompass the different elements within an open systems environment in which organizations interact with other organizations, funders, and individuals. Anecdotally, nonprofits sought to exploit these elements to at least maintain their level of resources obtained from the open systems environment. However, whether there were empirical relationships between the strategies and financial benefits experienced has not yet been determined. Therefore, the main research question of this dissertation is what factors are associated with the financial health of arts nonprofit organizations?

To answer this research question, I rely on the benefits theory of nonprofit finance, organizational ecology, and collaboration research. The key tenet of benefits theory is that nonprofit organizations provide certain types of benefits (Young, 2007). Nonprofit programs that provide public benefits are enjoyed by broader communities whereas private benefits are enjoyed by individuals. Because of the nature of these benefits, public benefits align with public sources of revenue such as government funding and charitable contributions. Individuals should be willing to pay to enjoy private benefits. As such, private benefits align with private sources of income, or earned revenue. Nonprofit organizations can also provide a combination of public and

private benefits, in which case, they should theoretically rely on both public and private sources of support. Based on benefits theory, I hypothesize that arts nonprofits that had benefit-revenue alignment, or aligned their benefits with the corresponding revenue sources, had better financial health.

Studies in the field of organizational ecology typically utilize organizational factors to understand survival, a key indicator of an organization's financial health. Organizational ecology draws on characteristics such as age, size, and legitimacy to show that, typically, older, larger, and organizations with more legitimacy are more likely to survive because of an enhanced ability to secure resources from an open systems environment. Environmental characteristics such as nonprofit density and poverty have been used in organizational ecology studies as well. More recently, there have been a limited number of studies that link environmental factors such as socio-economic characteristics, to nonprofit financial health. Drawing from these studies, I extend the use of environmental factors to the analysis of arts nonprofit financial health and hypothesize that nonprofit organizations located in more supportive socio-economic environments have higher financial health outcomes.

Much of the literature on collaboration is normative and assumes that collaboration has financial health benefits since it involves sharing resources with partners to provide a joint program. Rather than testing this assumption, studies of nonprofit partnerships tend to focus on questions such as who partners, what the partnerships look like, why they partner, and how to make a collaborative effort successful. Anecdotally, arts nonprofits seek partnerships to help reduce costs and provide each other with information on funding opportunities. Based on the literature that is available, the third hypothesis is that collaboration is positively related to financial health for arts nonprofit organizations.

To test the three groups of hypotheses, I use a combination of data sources. First, I deployed an original survey to a sample of arts nonprofit organizations covering the years 2008 to 2013. I then combined survey responses with: financial information from IRS Form 990 Core Financial Files, demographic information from the U.S. Census, socio-economic data from the BEA, and sector data from the IRS Business Master File. Based on results from the Hausman and Breusch and Pagan Lagrange-multiplier tests, I conducted fixed effects, random effects, or pooled regression analyses of the panel data, in addition to difference of means t-tests. I include probability weights to address response issues and any differences that may be present between organizations with and without benefit-revenue alignment and collaborative partnerships.

I operationalize financial health as long, short, and current term financial health using six different measures: equity ratio, return on assets, months of spending, mark up, months of liquidity, and change in months of liquidity. Benefit-revenue alignment is a dichotomous variable indicating whether public, private, and mixed benefit-providing arts nonprofits relied on public, private, and mixed revenue sources, respectively. I used 90%, 85%, and 80% levels to distinguish public and private nonprofits and the ranges of 40% to 60% and 35% to 65% to distinguish mixed benefit-providing arts nonprofits. Socio-economic characteristics I include as independent variables are the natural logarithm of total population, the percentage of nonwhite residents in a county, a dichotomous variable indicating if a county is composed of at least 65% nonwhite residents, the natural logarithm of median household income, and state GDP. Collaboration is operationalized as both a dichotomous variable for the presence of a collaboration and the number of partnerships. I also include the extent to which financial and nonfinancial resources were shared with partners, based on a Likert scale response in the survey.

Control variables I include are nonprofit density, revenue concentration, investment income, size, surplus, debt ratio, age, and activity.

The findings indicate that arts nonprofits that had benefit-revenue alignment only had higher equity ratios and months of spending when the definition of mixed nonprofits is relaxed to the 35% to 65% distinction. However, these organizations also had lower return on assets and change in months of liquidity, revealing that there may be different drivers of financial capacity and sustainability. Although publicly supported arts nonprofits that were public in nature had lower equity ratios and change in months of liquidity, privately funded organizations that were private had higher equity ratios. Just as there may be different drivers of financial capacity and sustainability, public and private benefit-providing arts organizations may have different considerations when it comes to financial health. I also find that population size and minority residents in a county are negatively associated with months of liquidity, providing limited support for and against hypotheses. Minority counties and local wealth are not found to be related to financial health for arts nonprofits. Finally, the presence of a collaboration and the number of collaborations are positively related to return on assets and months of spending, respectively. The number of partnerships an organization had is not always positively associated with financial health benefits, however, since having more partnerships is negatively related to months of liquidity. Arts organizations that shared financial resources to a greater extent had better financial health outcomes for select current term financial health measures, but is negatively related to return on assets. The more nonfinancial resources an arts organization shared with collaborators, the lower the months of spending. These findings on collaboration suggest that although there are financial health benefits to collaborating, organizations should be

conscious of the number of partnerships, as well the possibility of becoming overextended due to sharing more resources with partners.

## Study Limitations

There are limitations to this dissertation's research that could undermine the generalizability and the validity of the findings. To begin, the sample of organizations in the study is limited to one subsector. Determining the impact of collaboration, socio-economic characteristics, and benefit-revenue alignment on the financial health of other subsectors will require additional research. Although the arts subsector is desirable to study due to the sector's difficult experiences during the recent depression, the significant findings are only generalizable to other arts nonprofit organizations. The years of analysis are also limited in that they include recessionary years that may have impacted the results. To truly judge the impact of these strategies on financial health, I need to assess the financial health of the sample in years not including the economic downturn or include panel data from pre- and post-recession. Doing so would allow me to compare pre-recessionary and recessionary financial health. Tracking organizations for a longer period of time would also enable an examination of the impacts of collaboration before and after any partnerships began.

Equity ratio and return on assets for the sample peaked in 2006, the last full year before the recession started, and did decline for the two following years. However, there was a mini-recession that lasted from 2002 to 2003, so it is necessary to follow financial health trends for a longer period to determine whether the peak in 2006 was a fluke or a return to levels before the mini-recession. However, there is a lack of available financial information for all respondents for the years 2004 to 2006, so obtaining financial information for earlier years would be another

challenge. Some of the organizations in the sample had not yet been founded in these earlier years as well. Analyzing a longer panel of data would therefore limit any analyses and conclusions to those organizations that have greater financial health overall, as signaled by their longevity.

The fact that I use IRS Form 990 financial information for this research is also a limitation. Only organizations that meet certain levels of gross receipts and total assets are required to file the Form 990. Organizations falling below these levels must file either the 990-EZ or 990-N. These forms have limited financial information, so they were excluded from the survey sample. As a result, the sample is skewed towards larger organizations that meet the income and asset thresholds. This is a limitation for this dissertation because the determinants of financial health for smaller arts nonprofit organizations may be different from those of larger arts nonprofits. For instance, smaller organizations may have barriers to entering partnerships with other organizations, or may lack the human resources to analyze their benefits and revenue sources. Some organizational leaders even declined to participate specifically because they did not have the resources to locate the information on partnerships and public and private programming, with the possibility that these are smaller organizations that are not being included in the study. Future research should make the effort to ensure that smaller nonprofits that do not file Form 990s are included in the analysis. Moreover, future studies can also try to incorporate different means of collecting data on programming and collaborative efforts, such as a content analysis of annual reports for referrals to partners.

The financial information from the Form 990s and the program and collaboration information from the surveys have limitations as well. To begin, Form 990 data may not be consistent and reliable with audited financial statements (Froelich, 1997; Gordon, Khumawala,

Kraut, & Meade, 2007). This means that organizations may be under-reporting or over-reporting revenue or expenses, meaning that the financial health calculations I make in this dissertation are not the true measures. Only by obtaining the audited financial statements in the future will I be able to address this limitation and be certain that the calculations accurately represent the financial health measures. Survey data is also based on personal recall. Not only is there the risk that survey respondents made estimations when responding to the survey because they do not remember the details from 2008 to 2013, but there has also been staff turnover over this period that prohibits accurate recall and participation by the full survey sample. In fact, some organizations declined to participate in the survey because of leadership changes.

In terms of the survey itself, this was my first undertaking of a national survey, so I believe that the survey can be improved upon greatly for future research. For instance, the definitions of public and private benefits can be more specific. As I stated previously, a majority of respondents identified their nonprofits as providing mostly public benefits. Because there was less variation in the responses than expected, greater specificity would most likely refine the results. Adding more specific questions about their arts programming and funding, such as whether the organizations receive government or private support for redistributional benefits such as programming for low-income populations and other populations that have low access to the arts would help address some of the potential endogeneity that may be influencing the results. I would also provide specific examples on what constitutes a single collaboration, since the number of collaborative efforts that respondents identified were also quite high. Stating this is not to discredit the results, since partnerships are an important aspect of arts nonprofits' service delivery. Instead, greater clarification would enhance the validity of the responses. Unfortunately, there is not yet a reliable method or document that exists that incorporates

information on benefits or collaboration, so this survey can serve as a starting point for future research.

Also of significance is that many of the organizations participated in collaborative efforts each year. One survey respondent noted, "Our organization has no program space of our own, only administrative space. As a result[,] we must collaborate and partner with organizations to present our programming." Arts nonprofit organizations can face high costs to provide services, and more than half of total operating expenditures are already dedicated to putting on artistic productions (Kushner & Pollack, 2007). Space is needed to provide programming, but arts nonprofits also need human resources such as artists and administrative support, in addition to networks of audience members to participate in the arts programs. Consequently, the arts subsector may be unique in its likelihood to partner with other organizations due to the nature of and the costs associated with its services. It is possible that for many arts nonprofit organizations, collaboration is a constant necessity rather than a strategic decision to pursue financial benefits. I assumed that collaboration is an organizational strategy that arts nonprofits take on to weather any financial downturns, similar to organizations like the Lower Manhattan Arts League. Because this was most likely not the case, future work should also track when partnerships begin and end to understand how the decision to collaborate impacts financial health.[7]

The survey response rate of approximately 7% is another limitation to this dissertation. The small sample size could be a contributing factor to the results, since larger effect sizes need to be observed for there to be significant results, and multiple variables were not found to be significant despite bearing the hypothesized direction. The high standard errors, particularly for

[7] I ran several variations of the statistical models testing Hypothesis 3, such as models that included the average age of the partnerships over the period as a control variable and independent variable. However, the variable was dropped due to collinearity, so I was unable to explore the relationship between partnership age and financial health.

each model with months of spending and mark up as the outcome measures, signal that multicollinearity is a concern, and could be a reason why more significant results are not observed. According to Shearer and Clark (2016), 48% of independent variables included in the regression models of the average article published in the two leading nonprofit academic journals bear insignificant results. They believe that multicollinearity is an issue that affects many nonprofit studies. Following their recommendations, the variables I included in the models do not have correlations of 0.9 and above and the variance inflation factors are less than five. However, the results still indicate the presence of multicollinearity. Because the standard errors are significantly higher for months of spending and mark up, a larger sample size may lead to greater variation in the data and help lessen any collinearity among variables.

## Potential Contributions

In spite of any limitations, I hope to make several key contributions with this dissertation to the areas of nonprofit research, nonprofit management, and policies governing nonprofit organizations. Firstly, this dissertation advances nonprofit theory by extending existing theories with the inclusion of new subsectors and/or independent variables. For instance, the benefits theory of nonprofit finance has not yet been used to study the empirical effect of matching benefits provided with their appropriate revenue sources. Previous studies have instead focused on providing support for the assertion that different types of benefits, such as public, private, and redistributive, are indeed associated with government support, charitable contributions, or earned revenue. However, benefits theory has the assumption that nonprofit organizations that have benefit-revenue alignment are utilizing the full range of revenue sources available to them. Benefit-revenue alignment can consequently impact financial health of nonprofit organizations,

particularly since having enough revenue to fund operations is an important aspect of financial health. Previous studies of benefits theory do not explicitly make this connection. Although the results show that those with benefit-revenue alignment had higher average equity ratio and return on assets when using the 35% to 65% distinction for mixed benefit-providing arts nonprofits, these results still provide some indication that benefit-revenue alignment can have financial health benefits. As a result, this dissertation widens the application of benefits theory from describing nonprofit income portfolio composition to connecting benefits, revenue, and financial health.

The second and third sub-research questions of this dissertation ask the relationship between financial health of arts nonprofits and socio-economic environments and collaboration. To date, the arts nonprofit subsector has not been used to study the impact of how more or less supportive environmental conditions, such as income and race in an area, affect financial health. As discussed in previous chapters, there are very few studies that examine the effect that environmental conditions have on financial health. I find that total population and the population of nonwhite residents in a county is negatively related with months of liquidity. Surprisingly, local wealth is also not related to the financial health outcomes, so these findings imply that arts nonprofits have different relationships with external environments than other nonprofit subsectors. Another reason the relationship between local wealth and financial health may not be present is because this research covers an economic downturn whereas previous research analyzes financial data from non-recessionary years (Prentice, 2016).

The final main contribution that this dissertation makes to nonprofit theory is to the study of collaboration. Because empirical testing of the assertions that collaboration can improve financial health is currently unavailable, it is important to determine the significance of the

relationship between collaboration and financial health. As a result, the research I conduct in this dissertation is more rigorous compared to previous studies on nonprofit collaboration. Partnering with other nonprofits can also involve a great commitment of resources. Nonprofit practitioners should have the evidence that supports such efforts when deciding to commit finite resources to initiate partnerships. The results suggest that sharing financial resources to a greater extent can have current-term financial health benefits and that collaboration can have benefits for return on assets and months of spending. However, there are reductions in months of liquidity as the number of partnerships increase, so nonprofit practitioners should carefully weigh the costs and benefits associated with additional partnerships.

Because economic recessions are cyclical, as are periods of unstable resource environments, executive staff and board of directors at nonprofit organizations should be aware of the strategies that can help their organizations withstand future downturns. The current political climate, for instance, is one that shows extreme volatility for arts organizations. Although Congress increased appropriations to the National Endowments for the Arts and Humanities slightly for this year, the political environment is one in which executive leadership still wants to completely eliminate federal funding for the arts (n.a., 2017a; Ziv, 2017). Using evidence-based findings, nonprofit practitioners can develop helpful revenue strategies to prepare for economic shocks by deliberately considering the impact that benefits and revenue sources have on long term financial health. Moreover, if a nonprofit is aware that it is does not share financial resources with its collaborative partners, then the organization may want to begin sharing knowledge about funding opportunities or sharing space to a greater extent when able to do so. The findings also confirm previous findings that organizational characteristics such as revenue diversification is desirable for improved financial health, so nonprofits with

concentrated income portfolios may want to seek additional revenue streams in advance of economic downturns. For example, arts nonprofits in Western Michigan are ramping up fundraising efforts and seeking unique ways of fundraising ahead of what seems like an imminent loss of federal funding (Simons, 2017). The findings of this research can be used to inform precautionary tactics such as this to help arts nonprofits withstand economic downturns as well as periods of unfavorable funding and policy environments.

Finally, the results from my analyses should also provide guidance for policies that guide nonprofit practice. The benefits theory of nonprofit finance argues that commercial revenue, charitable contributions, and government support are all appropriate income sources for nonprofits, given that they provide a mix of private and public benefits. Therefore, the argument can be made that there should be the continuation of the policies that allow nonprofits to continue to utilize these revenue sources, such as tax deductions for charitable contributions and government support. Although the federal support of arts programming may not be a certainty in the future, lower levels of government can still provide financial support for arts programming that benefits the public. Another policy issue deals with funders' requirements for partnerships or preferences for organizations that collaborate. Although the findings indicate collaborations are positively related with financial health, public and private donors may still want to modify their preferences for collaboration based on the assumption that it yields positive financial outcomes since more collaborations did not necessarily lead to better financial health outcomes. In summary, the findings of this dissertation that addresses the financial health of arts nonprofits during an economic downturn contributes to nonprofit theory, practice, and policy.

## Future Work

With this dissertation, I seek to add to the existing literature on nonprofit financial health by examining the relationship that the benefits that arts nonprofits provide, revenue structure, socio-economic factors, and collaboration have with six measures of financial health. Although this dissertation is a step towards a more complete understanding of the factors related to nonprofit financial health, more research is needed. Conducting additional rounds of the survey may expand the dataset and help to alleviate analysis issues. Collecting more data would also enable refinement of definitions to enhance the validity of responses. Future research should also seek to expand the time frame of analysis to include years before and after the economic downturn as well as track when collaborations began and ended. Doing so can delineate financial health before, during, and after the recession to determine the longer-term effects of the independent variables.

The analyses yielded different findings, some of which are surprising, for the current, short, and long-term measures of financial health. These findings may indicate that financial health needs to be studied using different lengths of time rather than the often-used measures, including financial vulnerability, growth, or survival. Another reason it would be beneficial to utilize alternative definitions of financial health is that financial health is difficult for nonprofit organizations to achieve during any time period. According to Bowman's (2011b) analysis of nonprofit organizations from 2001 to 2003, 62% of the organizations were not sustainable in the long term because their average return on assets was not high enough to keep up with long-term inflation and 16% of the sample had negative months of liquidity, meaning they would have been unable to keep providing services in case of a drastic loss in funding. A more recent study of human service nonprofits revealed that the median average return on assets was 0.01, far below

the long-term inflation rate of 3.4 percent (Lam & McDougle, 2016). Twenty percent of this study's sample also had negative months of liquidity, which is a higher proportion than the findings for all nonprofit subsectors from 2001 to 2003. In sum, financial health is difficult for nonprofits to achieve during any time period, though they are seemingly more difficult to achieve during economic downturns. If financial health is out of reach for many nonprofits during the good times, then the focus during any bad times, such as the Great Recession which are included in this dissertation's analysis, may be rudimentary at best. Nonprofits may become focused on matters such as maintaining services, breaking even, or staying open in the present, and be less focused on what may occur in the near or far-off future.

Consequently, it would also be interesting to conduct more in-depth analyses into the financial health measures at the long, short, and current term time frames and more specifically during recessionary and non-recessionary time periods. The calculations for financial health at each different times and the organizational goals logically differ, so it makes sense that financial health would be influenced by different factors. For instance, age has negative relationships with current term financial health, but positive relationships with long term financial health. Based on concepts from organizational ecology, studies of current term financial health may want to include measures of organizational networks or legitimacy. Another avenue for future work is to use different conceptualizations of financial health. Benefit-revenue alignment, supportive socioeconomic environments, and collaboration may have different relationships with other outcome variables, such as whether an arts nonprofit made cutbacks in total and program expenditures in the face of declining revenue during a recession. To be certain, there are a variety

of additional questions and issues that arise from this research. However, it is still a step towards refining knowledge about the financial health of arts nonprofit organizations specifically, and nonprofit organizations as a whole as well.

## APPENDIX: SURVEY

Nonprofit Arts Programming and Collaboration Survey

Section One: Organizational Information

1. What is your organization's name?

2. What is your organization's Federal Tax ID or Employment Identification Number (EIN)?

Section Two: Program Information

In this section, please move the slider to the number that represents the percentage of public programming your organization provided in the specified year. Public programs are those that serve large segments of the community and are open to everyone, such as exhibits or other events that are open to the general public. In contrast, private programming serves specific groups of individuals, like youth-focused workshops and member or subscription-based services.

3. Approximately what percentage of public programming did your organization provide in 2008?

4. Approximately what percentage of public programming did your organization provide in 2009?

5. Approximately what percentage of public programming did your organization provide in 2010?

6. Approximately what percentage of public programming did your organization provide in 2011?

7. Approximately what percentage of public programming did your organization provide in 2012?

8. Approximately what percentage of public programming did your organization provide in 2013?

Section Three: Collaborations between 2008 and 2013

For this section, please answer the questions using experiences for collaborations your organization had between 2008 and 2013. By collaboration, we mean formal or informal partnerships with other organizations that resulted in the sharing of financial, human, or other resources such as knowledge and expertise, staff, volunteers, space, technology, or resulted in the joint programming or provision of services.

9. How many collaborations did your organization have from 2008 to 2013?
    a. 0 [If 0, skip to Question #24]

b. 1
c. 2
d. 3
e. 4 or more
f. If 4 or more, please specify.

10. How many of these collaborations existed before 2008?
    a. 0
    b. 1
    c. 2
    d. 3
    e. 4 or more
    f. If 4 or more, please specify.

11. Please indicate the extent to which your organization shared the following financial resources with your partner(s) from 2008 to 2013 (choose one number for each resource).
    a. Funding Not at all 1 2 3 4 5 6 7 To a great extent
    b. Staff members Not at all 1 2 3 4 5 6 7 To a great extent
    c. Volunteer support Not at all 1 2 3 4 5 6 7 To a great extent
    d. Knowledge or expertise on revenue generation, such as funding opportunities or sponsorships Not at all 1 2 3 4 5 6 7 To a great extent
    e. Technology Not at all 1 2 3 4 5 6 7 To a great extent
    f. Physical space(s) or asset(s) such as a meeting or event space Not at all 1 2 3 4 5 6 7 To a great extent
    g. Other (please identify) Not at all 1 2 3 4 5 6 7 To a great extent

12. Please indicate the extent to which your partner(s) shared the following nonfinancial resources with your organization from 2008 to 2013 (choose one number for each resource).
    a. Organizational reputation Not at all 1 2 3 4 5 6 7 To a great extent
    b. Network of other organizations Not at all 1 2 3 4 5 6 7 To a great extent
    c. Network of audience members Not at all 1 2 3 4 5 6 7 To a great extent
    d. Knowledge or expertise on program or service provision Not at all 1 2 3 4 5 6 7 To a great extent
    e. Knowledge or expertise in areas other than financing and program or service provision Not at all 1 2 3 4 5 6 7 To a great extent
    f. Other (please identify) Not at all 1 2 3 4 5 6 7 To a great extent

13. Please identify the financial purpose(s) of your organization's collaborations. Check all that apply.
    a. Generate cost savings by sharing technology, space, staff or volunteers, or other
    b. Gain knowledge or expertise on securing new sources of revenue
    c. Gain knowledge or expertise on increasing existing revenue sources
    d. Meet requirements of one or more funders to obtain funding

e. Act as a fiscal sponsor
f. Obtain a fiscal sponsor
g. Obtain a corporate sponsorship or licensing agreement
h. Other (please specify)

14. Please identify the programmatic purpose(s) of your organization's collaborations. Check all that apply.
    a. Improve existing program(s)
    b. Plan a new program(s)
    c. Provide a new program(s)
    d. Provide a new program with your partner(s)
    e. Attract new audiences
    f. Grow existing audiences
    g. Gain knowledge or expertise on program or service provision
    h. Other (please specify)

15. Please identify other purpose(s) of your organization's collaborations. Check all that apply.
    a. Gain knowledge or expertise in areas other than funding and/or programming
    b. Grow your organization's network with other organizations
    c. Provide publicity for your organization
    d. Enhance the legitimacy of your organization
    e. Other (please specify)

16. What was the average age of the collaboration(s) that existed between 2008 and 2013?
    a. Less than 1 year
    b. 1-2 years
    c. 2-4 years
    d. More than 4 years

17. What type of organizations were your organization's collaborative partners? (Please choose all that apply)
    a. Registered nonprofit organizations
    b. Government agencies
    c. For-profit organizations
    d. Informal organizations, such as unregistered community or grassroots groups
    e. Other (please identify)

18. Who was the key person responsible for executing the collaboration(s) in your organization?
    a. Executive director
    b. Other executive staff member
    c. Non-executive staff member
    d. Volunteer
    e. Board member(s)
    f. Other (please identify)

19. Who was primarily responsible for initiating the collaborations? Please check one.
    a. Your organization's staff
    b. Your organization's board members
    c. Your organization's beneficiaries, customers, or clients
    d. The partner organization's staff
    e. The partner organization's board members
    f. The partner organization's beneficiaries, customers, or clients
    g. Funder
    h. Community members
    i. Other (please specify)

Section Three: Collaborations that Ended between 2008 and 2013
For this section, please answer the questions using experiences for collaborations your organization had that ended between 2008 and 2013. By collaboration, we mean formal or informal partnerships with other organizations that resulted in the sharing of financial, human, or other resources such as knowledge and expertise, staff, volunteers, space, technology, or resulted in the joint programming or provision of services.

20. How many collaborations ended between 2008 and 2013?
    a. 0 [If 0, skip to Question #24)
    b. 1
    c. 2
    d. 3
    e. 4 or more

21. What type of organizations were these collaborative partners that ended? (Please choose all that apply)
    a. Registered nonprofit organizations
    b. Government agencies, including city, county, state, or federal
    c. For-profit organizations
    d. Informal organizations, such as unregistered community or grassroots groups
    e. Other (please identify)

22. What was the average age of the collaboration(s) that ended between 2008 and 2013?
    e. Less than 1 year
    f. 1-2 years
    g. 2-4 years
    h. More than 4 years

23. Please identify the most important reason why the collaboration(s) ended between 2008 and 2013. Select one.
    a. The mission of the collaboration was achieved
    b. Conflicting goals
    c. The contract or project term ended
    d. Lack of funding

e. There were too many challenges partnering with a government agency
f. There were too many challenges partnering with a for-profit firm
g. There were too many challenges partnering with a community or grassroots organization
h. The existing collaboration(s) caused your organization to lose charitable contributions
i. Lack of human resources, such as staff members
j. Lack of time
k. Lack of trust in the partner organization(s)
l. Other (please identify)

Section Three: Study Information

24. If you would like a copy of the study's results when completed, please list your e-mail address below.

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# VITA

Jung-In Soh was born in Detroit, Michigan and grew up in the suburbs of Detroit. Her father holds a doctorate degree in chemical engineering and her mother works as a pharmacist for the federal government. Based on this upbringing, Jung-In has been interested in public service and academia from an early age. Her work experience includes providing direct social services as a case manager of beneficiaries of low-income programming and nonprofit grant writing and fundraising. She attended the University of Michigan, Ann Arbor, and received an undergraduate degree in Sociology in 2005. Jung-In also obtained a Master of Public Administration with a focus in Nonprofit Management from Georgia State University in 2009. Jung-In's research interests include nonprofit finance and sustainability. She has contributed to journal articles and book chapters on the financing and resiliency of nonprofit organizations and social enterprises in titles such as the *Journal of Social Entrepreneurship*; *The Social Enterprise Zoo: A Guide for Perplexed Scholars, Entrepreneurs, Philanthropists, Leaders, Investors, and Policymakers*; and the 4th edition of *Nonprofit Leadership and Management*.