**Do Birds of a Feather Flock Together? Regional Socioeconomic Factors, Agglomeration and Performance of Non-Profit Social Enterprises**

by

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## Abstract

Nonprofit Social Enterprises (NPSEs) are nonprofit organizations that adopt commercial strategies to sustain their missions. Since nonprofit organizations have traditionally relied on philanthropy and have been known to establish themselves in areas of critical human needs, this shift in the NPSEs' focus from philanthropy to business creates a timely opportunity to examine potential changes in their location preferences and density dynamics. Using the tenets of organizational ecology, this study examined the context and agglomeration of NPSEs. Specifically, it examined whether socioeconomic factors indicating resource availability are more likely to influence the formation and financial performance of NPSEs in the U.S. than factors indicating resource constraints. The study used county-level government spending, household income and charitable giving as indicators of resource availability, and county-level unemployment rate, poverty rate and ethnic diversity as indicators of resource scarcity. The findings supported a majority of hypotheses, suggesting that NPSEs are less (vs. more) likely to be established in regions where the socioeconomic factors indicate a scarcity (vs. availability) of resources. These findings provide counterintuitive evidence on the purpose and establishment of nonprofit organizations. Additionally, the density of NPSEs had a curvilinear (inverted U-shaped) relationship with their financial performance, indicating that dynamics of competition and density-dependence may be quite influential for nonprofits that adopt a commercial nature. The study primarily contributes to the literature on organizational ecology, nonprofit context and density, and the role of government in the development of social entrepreneurship. It implemented a longitudinal design, and used secondary data from the National Center for

Charitable Statistics (NCCS) database and the U.S. census survey for analysis. The hypotheses were tested using multilevel modeling (MLM) and polynomial regression.

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# Chapter 1: Introduction

*"To understand the behavior of an organization, you must understand the context of that behavior – that is, the ecology of the organization."* (Pfeffer & Salancik, 1978, p. 1)

In recent decades, the nonprofit sector has experienced a growing competition for scarce resources, changing dynamics of philanthropy, and burgeoning social needs of individuals globally (Allen, 2013; Marlar, 2014). As a result, nonprofit organizations have been facing a need to become commercial in order to protect and sustain their mission-related activities (Dees, Emerson, & Economy, 2002). This need has led to the emergence of a new class of organizations in the social sector called the Nonprofit Social Enterprises (NPSEs) – organizations that apply entrepreneurial/commercial strategies in the pursuit of their social missions (Lasprogata & Cotten, 2003). Thus, NPSEs can be considered vehicles of social entrepreneurship (SE). SE is the process of developing and exploiting opportunities to set up ventures intended to create social wealth or social value, instead of purely economic wealth (Austin, Stevenson, & Wei-Skillern, 2006; Dees, 1998a; Leadbeater, 1997; Zahra, Gedajlovic, Neubaum, & Shulman, 2009). Scholars generally agree that SE is distinguished by the combining characteristics of commercial entrepreneurship and charitable institutions because the primary goal of SE is to solve a social problem or fulfill a social need and this goal is achieved by conducting market-based activities (Austin et al., 2006; Dees, 1998b).

Thus, SE can be conceptualized as either commercializing the activities of a nonprofit organization (NPO) or developing a social purpose for a business enterprise (Boschee & McClurg, 2003; Hockerts, 2006). In this study, I adopted the former view in line with previous research (e.g., B. B. Anderson, Dees, & Emerson, 2002; Austin et al., 2006; Boschee &

McClurg, 2003; Dart, 2004; Davis, 1997; Dees et al., 2002; Haugh, 2007; Sharir & Lerner, 2006) because the social mission is at the center of all SE activities and a nonprofit form is best suited to effectively meet such mission. This is due to the inherent properties of this form such as restriction on dividend distribution, lack of incentives for personal gains and reinvestment of earnings into the social cause. From this perspective, understanding Non-Profit Social Enterprises (NPSEs) first necessitates an understanding of nonprofit organizations (NPOs).

The nonprofit sector - also known as the "voluntary", "charitable", "independent", "tax-exempt" or "third" sector (Wade, 2000, p. 3) - is a significant part of the United States economy, and is one of the three engines that fuels the country's economic growth (Wade, 2000), the other two being the private sector and the government. According to an October 2014 report published by the National Center for Charitable Statistics, approximately 1.44 million nonprofit organizations (NPOs) were registered with the Internal Revenue Service (IRS) as of 2012, and they collectively contributed $887.3 billion to the U.S. economy in 2012 (McKeever & Pettijohn, 2014). The traditional methods used to fund these organizations have been private contributions and government support (Froelich, 1999; J. D. Smith, Rochester, & Hedley, 2005). These sources of revenues mainly include government grants and contracts, individual contributions, fundraising from general public, corporate donations and gifts, and foundation grants (Froelich, 1999; Macedo & Pinho, 2006). Given the charitable nature of all these funding sources, NPOs have historically followed a "dependency" model of resource-acquisition (Boschee & McClurg, 2003, p. 3) where the survival and future of an NPO would depend completely on the extent of philanthropic intent of other entities and very little decision-making authority rests with the NPO on the utilization of funds. As research efforts and recent developments in the nonprofit sector

have shown, this dependency model of resource-acquisition is not sustainable for NPOs in the long run (Kucher, 2014; Marlar, 2014; Wade, 2000).

The 21st century in the United States has seen a substantial growth in the formation of new NPOs and a corresponding decline in the traditional sources of funding available to them, thereby creating several difficulties in resource-acquisition for these organizations (Allen, 2013; Di Domenico, Tracey, & Haugh, 2009; Marlar, 2014; Wade, 2000). For example, the U.S. nonprofit sector grew by 8.6% between the period of 2002 and 2012, and by 27.3% between the period of 1995 and 2005 (Blackwood, Wing, & Pollak, 2008; McKeever & Pettijohn, 2014). This growth has fueled much of the competition among NPOs for scarce government grants and private contributions (Boschee & McClurg, 2003; Wade, 2000). Resource-mobilization for NPOs is an inherently difficult endeavor. This difficulty was exacerbated by the 9/11 crisis that changed the priorities of the U.S. government and other major stakeholders of NPOs, thereby putting additional constraints on their financial situation (Marlar, 2014). Subsequently, the 2008 recession that hit the United States eroded individual and corporate wealth and reduced the charitable contributions extended by these entities to NPOs (Wallace, 2009). The recession also imposed severe budgetary constraints on local and state governments, thereby removing or reducing important resources flowing from them to NPOs (Allen, 2013; Kucher, 2014). Thus, the collective effects of changing institutional conditions, rapid growth of the U.S. nonprofit sector and a corresponding decline in government and private funding available to NPOs have made charitable resources significantly more difficult to obtain, and thereby more valuable to these organizations. Consequently, several NPOs have started developing alternative sources of funding through methods such as investments, fee-for-service plans, business subsidiary formation, and commercial exchange involving sale of goods and services (Di Domenico,

Haugh, & Tracey, 2010; Macedo & Pinho, 2006; Pearce & Kay, 2003; Wade, 2000). These alternative streams of revenue are often necessary to ensure the sustainability and self-sufficiency of NPOs (Boschee & McClurg, 2003; Marlar, 2014) and have led to the transformation of several traditional NPOs into NPSEs. Thus, the sources of revenues for many NPOs today comprise of private contributions, government grants, and commercial exchange (Froelich, 1999), which are also the primary sources of revenue for nonprofit social enterprises (NPSEs) (Joassart-Marcelli & Wolch, 2003).

## Non-Profit Social Enterprises

NPSEs are not synonymous to NPOs; rather, the former is a specific type of the latter (Di Domenico et al., 2010). Quarter (1992, p. 41) notes, NPOs can be classified into two general categories – "those that serve the public by providing humanitarian and social services, and those that serve a defined membership by satisfying a mutual interest." From this perspective, NPSEs would form a part of the first category. A mere nonprofit status is not sufficient to confer the status of social enterprise upon an organization because not all NPOs may be solving a clear social problem (Boschee & McClurg, 2003). For example, a nonprofit recreation club may have a noble purpose of encouraging sports and relaxation activities, but that purpose may not directly solve any social issue or assist the disadvantaged. Similarly, a public university or college may have a noble goal of spreading education, but that goal is likely to be different from that of Teach for America – a social enterprise that extends education exclusively to the underprivileged and poor communities in the U.S. (Bornstein, 2007; Labaree, 2010). As Boschee and McClurg (2003, p. 3) state, social enterprises "either employ people who are developmentally disabled, chronically mentally ill, physically challenged, poverty stricken or otherwise disadvantaged; or they sell mission-driven products and services that have a direct impact on a specific social

problem." Additionally, social enterprises are also known for implementing earned-income strategies in their activities besides vying for traditional funding sources (Boschee & McClurg, 2003; Lasprogata & Cotten, 2003; Robinson, 2006). Put simply, NPSEs are a genus of a larger pool of NPOs due to the narrower focus of their social mission and their ability to incorporate earned-income strategies in procuring funding. Therefore, following Haugh (2007), this study defines NPSEs as nonprofit organizations that work primarily towards the betterment of disadvantaged individuals, communities and/or society, and are able to generate revenues from traditional sources of nonprofit funding as well as trading or commercial exchange. Thus, the ability to generate earned-income is one of the defining characteristics of NPSEs (Boschee & McClurg, 2003).

In addition to a non-profit, the United States allows social entrepreneurs to register their ventures as Low Profit Limited Liability Company (L3C), Benefit Corporation, "B Corps," or Social Purpose Corporation. Each of these legal forms stands in conflict to some extent with the conceptualization of social enterprise by current researchers. For example, a hallmark of social enterprise is that the profits earned are reinvested into the social purpose (Harding, 2004; Hartigan, 2006). However, under all the previously mentioned forms (i.e., L3C, Benefit Corporation, B-Corps and Social Purpose Corporation), a venture is allowed to distribute its revenues as profits among its members/owners (Callison & Vestal, 2010; Cooney, 2012; Murray, 2012). This feature may accentuate the risk of these ventures potentially serving their owners' or members' interests rather than those of the community. Additionally, the Benefit Corporation, B-Corp and Social Purpose Corporation are not mandatorily required to have a charitable purpose, which is the primary reason for a social enterprise to exist (Austin et al., 2006; Clark Jr & Babson, 2011; Dees, 1998b; Haugh, 2006). The aforementioned organizational forms are merely

required to conduct business "in a socially and environmentally responsible way" (Clark Jr & Babson, 2011, p. 819), which is not the same as *solving* a social problem. In fact, as Callison and Vestal (2010) explain, in the case of L3Cs, there is no provision for a third party regulator that could verify whether the L3C has a charitable purpose, which "creates opportunities for charlatans to establish business entities lacking bona fide charitable or educational purposes, call them L3Cs, and then use the goodwill arising from the form to further bad purposes" (p. 284).

Table 1 compares each of the legally recognized forms of social enterprises in the U.S. to the SE criteria of restriction on profit distribution and exclusive charitable purpose. Put simply, in the wake of several loopholes and discrepancies in the existing forms of social enterprises, the legal stance of United States with respect to social enterprises is still ambiguous, and suggestions have been made to form a separate legal statute for social enterprises or to make changes to the existing corporate statutes to accommodate SE (Murray, 2012). In the meantime, several social enterprises in the U.S. are registered as either nonprofit or for-profit organizations. In this study, I focus exclusively on the social enterprises operating in the U.S. nonprofit sector because "the main world of the social entrepreneur is the voluntary sector" (Thompson, 2002, p. 413).

Table 1. Acceptable Legal Forms for SE in the United States

| | **Legal Form** | | | | | |
|---|---|---|---|---|---|---|
| **Criteria for SE** | L3C[1] | Benefit Corporation[2] | B Corps[3] | Social Purpose Corporation[4] | For-Profit Organization[5] | Non-Profit Organization |
| Restriction on Profit Distribution | *No* | *No* | *No* | *No* | *No* | *Yes* |
| Exclusive Charitable Purpose | *Yes* | *No* | *No* | *No* | *No* | *Yes* |

[1] Low-profit Limited Liability Company or L3C is a business entity that has a stated goal of achieving a socially beneficial purpose. It is classified as a Limited Liability Company (LLC). (http://www.intersectorl3c.com/l3c_home.html)

[2] Benefit Corporation is a business entity that includes a positive impact on society and environment as one of its goals in addition to making profits (www.benefitcorp.net)

[3] B-Corps are business organizations certified by the nonprofit organization B-Lab as meeting the standards of social and environmental performance. (www.bcorporation.net).

[4] Social Purpose Corporation (SPC) is a type of for-profit organization recognized in Washington, Florida and California. SPCs are enabled, not required, to consider social and environmental goals while conducting profit-maximizing activities. (www.spcwa.com).

[5] A traditional business entity.

## The Need for Research on NPSEs

The roots of SE in United States initially developed with its conceptualization as market-based activities by nonprofit organizations (Kerlin, 2006). Defourny and Nyssens (2010, p. 36) note, "The first and still dominant stream on social entrepreneurship refers to the use of commercial activities by non-profit organizations in support to their mission." Current research in SE has also followed this route and examined social enterprises extensively in a nonprofit context (e.g., B. B. Anderson et al., 2002; Austin et al., 2006; Boschee & McClurg, 2003; Dart, 2004; Davis, 1997; Dees et al., 2002; Haugh, 2007; Sharir & Lerner, 2006). However, research to date has not fully identified the unique aspects of NPSEs. Specifically, there is little research examining how NPSEs determine their location choice and subsequent survival strategies, and the contextual forces that may play a role in such decisions. Examining the context surrounding NPSEs is important because it is likely to differentiate these social enterprises from commercial and conventional nonprofit organizations, and assist in establishing the theoretical basis of SE – a research need highlighted repeatedly in the SE literature (Austin et al., 2006; Short, Moss, & Lumpkin, 2009).

My primary goal in this study was to examine the role of socioeconomic context of NPSE. Specifically, I examined the effects of regional socioeconomic indicators on the rate of formation of NPSEs and the effect of their regional density on their financial performance. As explained later in chapter 2, the socioeconomic context surrounding NPSEs may differ from that of purely nonprofit or for-profit organizations because NPSEs today are characterized by unique organizational structure and resource needs. For example, on one hand, NPSEs face stringent competition for scarce financial resources due to the reduction in the availability of government grants and private donations (Marlar, 2014; Wade, 2000) – a constraint not applicable to

commercial firms. On the other hand, the commercial activity conducted by NPSEs to address the problem of scarce financial resources runs the risk of losing the faith of beneficiaries, support from important pro-social stakeholders and their nonprofit status (Boschee, 1998) – a constraint not applicable to traditional nonprofit organizations that rely on philanthropic funding sources. Thus, NPSEs possess their own unique challenges in the process of mobilizing resources and ensuring financial survival. However, social entrepreneurship researchers have done little to examine the resource challenges of NPSEs in well-established economies such as the United States. The extant literature focuses mostly on underdeveloped or developing economies and largely assumes that social enterprises are innate to resource-constrained regions (Alvord, Brown, & Letts, 2004; Di Domenico et al., 2010; Nicholls, 2006).

While research exists on resource constraints of voluntary organizations in the U.S., this stream has focused predominantly on traditional nonprofit organizations (NPOs), not NPSEs per se (e.g., Bielefeld, 1990; Foster & Bradach, 2005; Froelich, 1999; Marlar, 2014; Wade, 2000). NPSEs differ considerably from traditional NPOs in the focus of their mission, their resource-mobilization activities, norms, values and strategies (Boschee & McClurg, 2003; Dart, 2004; Haugh, 2007; Lasprogata & Cotten, 2003). Hence, the current SE literature displays a large lacuna in research examining the establishment, resource needs, and financial performance of NPSEs. My research aims to contribute in addressing this gap by studying the role of regional socioeconomic factors in the establishment of human service NPSEs in the U.S. and the effects of dependencies formed by density of these firms on their financial performance.

**Socioeconomic Context and Regional Density of NPSEs – The Research Gaps**

Research on SE has largely taken an actor-specific approach, focusing primarily on the characteristics of individual social entrepreneurs (Bornstein, 2004; Haugh, 2012). There is little

research explaining the role of context or institutional conditions in SE (Dorado & Ventresca, 2013). Particularly, there is a lack of research on the extent to which different political, economic, social or cultural factors support or discourage the establishment and performance of social ventures (Doherty, Haugh, & Lyon, 2014; Peattie & Morley, 2008). An important area of inquiry is how these factors relate to resource-mobilization in SE (Austin et al., 2006; Desa & Basu, 2013).

Social entrepreneurs have been glorified as individuals with system-changing ideas who transform institutional conditions (Drayton, 2002; Hartigan, 2006; Light, 2006), who are skilled at implementing bricolage (i.e., making do with whatever is at hand) to circumvent resource-constraints (Baker & Nelson, 2005; Desa, 2012), and who often deliberately choose to operate in resource-constrained regions (Di Domenico et al., 2010). As a result, researchers have studied social ventures extensively in resource-constrained environments (e.g., Alvord et al., 2004; Brown & Ashman, 1996; Nicholls, 2006). While this approach has improved our understanding of how social ventures operate in underdeveloped economies that possess unfavorable socioeconomic conditions (Desa, 2012), little is known about the *opposite* relationship (i.e., how favorable socioeconomic conditions influence social enterprises) especially in developed economies such as U.S., that have well-established institutional frameworks. Put alternatively, the importance of socioeconomic conditions in developed economies and their role in providing resources for start-up social enterprises has been consistently downplayed in the SE literature. As stated by Bacq and Janssen (2011, p. 387), "the issue of influence of the external environment on the individual, the process, and the organization has only received little, if not to say no, attention in the social entrepreneurship literature." In fact, in an effort to highlight their heroic ability to navigate environmental barriers, it has even been argued that social entrepreneurs "rarely allow

the external environment to determine whether or not they will launch an enterprise" (Dacin, Dacin and Matear, 2010; p. 48). Such perspectives undermine the role of the environment in the creation and operation of NPSEs. Particularly, little research explains how regionally-embedded socioeconomic factors influence the formation rate and financial performance of NPSEs. And this issue is exacerbated by the fact that a major portion of SE research utilizes single-firm case studies or small samples, and lacks examination of large scale datasets (Short et al., 2009).

Studying regional socioeconomic factors is necessary in order to fully understand where and why NPSEs are established as well as the implications of these choices for their performance. For example, are NPSEs more likely to be formed in regions with vast sources of charitable finance available to them, or in regions with many social problems? Studying these factors also directly contributes to our understanding of the unique institutional context in which SE is most likely to thrive – a research need highlighted repeatedly in the literature (Austin et al., 2006; Bacq & Janssen, 2011; Haugh, 2006; Peattie & Morley, 2008; Short et al., 2009).

The socioeconomic factors influencing nonprofit activity can largely be classified into demand and supply side factors (Grønbjerg & Paarlberg, 2001). Certain factors suggest the existence of social needs and a scarcity of resources to meet such needs in a region; for example, high unemployment and poverty rates indicate severe socioeconomic conditions in a region (Park & Kim, 2014). These indicators are referred to in the literature as demand side factors (Saxton & Benson, 2005; Twombly, 2003). Contrarily, indicators such as federal funding and household charitable giving rate suggest the availability of resources in a region that are valuable to nonprofit organizations (Grønbjerg & Paarlberg, 2001; Van Slyke & Brooks, 2005). These indicators are referred to as supply side factors (Corbin, 1999; Saxton & Benson, 2005). In essence, the presence of demand or supply side factors in a region indicates the scarcity or

availability of critical resources that are necessary for the functioning of NPOs. The results of prior empirical studies have been mixed that have examined the extent to which one set of these factors exerts a greater influence on nonprofit activity over the other (Ben-Ner & Hoomissen, 1992; Gamm & Putnam, 1999; Salamon & Anheier, 1998; Skocpol, Ganz, & Munson, 2000; D. H. Smith & Shen, 2002). For example, Grønbjerg and Paarlberg (2001) found that supply-side factors such as availability of human resources have a stronger influence on NPO establishment than demand-side factors such as poverty. On the contrary, Park and Kim (2014) found that demand-side factors such as unemployment and presence of large minority groups have a greater influence on NPO establishment than supply side factors such as household income. Still, others have found that both demand and supply side factors predict nonprofit activity in a region (W. Bielefeld & Murdoch, 2004).

Additionally, paradoxical arguments exist even in relation to a specific factor such as poverty, with some researchers suggesting that government support increases for NPOs conducting anti-poverty efforts (Joassart-Marcelli & Wolch, 2003), whereas contrary evidence suggests that conditions of poverty reduces the availability of government support for NPOs operating in those regions (Garrow, 2011). These conflicting findings in the nonprofit literature generate an interesting research opportunity for SE because NPSEs rely on both demand and supply side factors (Austin et al., 2006). Therefore, from the perspective of my study, an important research question to be answered is, "Do human service NPSEs favor locations where socioeconomic factors indicate resource availability or resource scarcity?"

Whereas the mission of NPSEs is to resolve a societal problem (e.g., poverty), environments with vast prevailing social problems often lack critical resources (e.g., finance) necessary for conducting social entrepreneurship. Therefore, such environments are likely to

serve as an impediment to NPSEs' survival and growth. On the other hand, resource-rich environments such as regions with high-income populations may be able to provide critical financial resources to NPSEs; however, such regions are also likely to lack social problems such as poverty and unemployment, thereby becoming irrelevant for the NPSEs' mission of human service. Such paradoxes highlight important research gaps in terms of socioeconomic context surrounding SE, which, in the case of NPSEs, have not been addressed.

Another area of inquiry that has largely lacked attention in SE research is the regional agglomeration (density) of social enterprises. Organizational density has been a popular topic of inquiry in the research domain of entrepreneurship and traditional NPOs (e.g., Bell, 2005; W. Bielefeld & Murdoch, 2004; Jonghoon, Wezel, & Jun, 2011; Lecy & Van Slyke, 2013). The entrepreneurship literature suggests that favorable socioeconomic conditions characterized by the availability of resources vital for organizations positively influence the organizational founding rates (Chang, Chrisman, Chua, & Kellermanns, 2008). Further, this research also suggests that increasing density has major implications for the competitive positioning of organizations (Folta, Cooper, & Baik, 2006), that knowledge spillovers resulting out of agglomeration may be beneficial for incumbent organizations (Gilbert, McDougall, & Audretsch, 2008; McCann & Folta, 2011), and in certain cases, when the resource needs of organizations do not overlap, the density of organizations in a region can actually be beneficial for all (Baum & Oliver, 1996). In the literature on traditional nonprofits, there have been limited efforts at understanding the location choice and establishment of NPOs (e.g., Bielefeld, 2000; W. Bielefeld & Murdoch, 2004; Grønbjerg & Paarlberg, 2001; Lecy & Van Slyke, 2013). Specifically, from the perspective of NPSEs, there is a tremendous lack of research on the institutional conditions influencing NPSE regional agglomeration. For example, does increasing regional density of

NPSEs spur competition or cooperation among such firms? Moreover, since NPSEs target a specific social issue and rely on earned income in addition to philanthropic sources of revenue, the regional factors influencing their location choice may differ significantly from those of NPOs as well as commercial firms. Particularly, what SE research still lacks is a theoretical understanding and empirical evidence of the socioeconomic factors influencing the regional density of NPSEs and the subsequent effects of density on their financial performance.

## Research Questions

Considering the research gaps highlighted above, my dissertation aims at answering the following research questions.

1) How do socioeconomic factors influence the location choice to establish human services NPSEs in the U.S.?
2) How do county-level factors of resource-availability versus scarcity influence the agglomeration (density) of human services NPSEs?
3) How does the agglomeration of human services NPSEs influence their financial performance?

## Proposed Research Agenda and Contribution

Using the tenets of organizational ecology theory (Hannan & Freeman, 1977; M. T. Hannan & Freeman, 1993), the present study argues that regional socioeconomic factors indicating resource availability are more likely to influence the formation of social ventures than factors indicating resource constraints. This counterintuitive suggestion goes against the general understanding of social enterprises as firms that deliberately choose to operate in resource-constrained environments due to their focus on identifying and solving social issues (Bhatt & Altinay, 2013; Desa, 2012; Di Domenico et al., 2010). Specifically, I contend that the choice of

location in the formation of nonprofit social enterprises is likely to follow the pattern of natural selection based on resource availability, as per the tenets of organizational ecology. Additionally, the growing density of NPSEs in the region is likely to form a curvilinear (inverted U-shaped) relationship with their financial performance due to the combined mechanisms of cooperation and competition under organizational ecology.

Organizational ecology theory examines the selection processes that influence the births and deaths of organizations in a given environment (Hannan & Freeman, 1977; Sheth & Sisodia, 2002). The theory suggests that socioeconomic contextual factors influence the rate of organizational founding (H. E. Aldrich & Wiedenmayer, 1993; Baum & Oliver, 1996). Additionally, the theory explains the dynamics of competition and cooperation among the firms in the given environment and suggests that the increasing density of firms initially provides benefits by way of mutualism and resource-sharing, but later on creates competitive interdependence (Agarwal, Sarkar, & Echambadi, 2002).

The principles of organizational ecology theory have implications for the establishment and financial performance of NPSEs. In the context of SE, organizational ecology theory suggests that the favorable characteristics of a regional environment – i.e., socioeconomic factors indicating greater resource-availability – are likely to positively influence the founding rates of NPSEs, especially because economically favorable conditions matter as much for social ventures as they do for commercial ventures (Estrin, Mickiewicz, & Stephan, 2013). Moreover, NPSEs' likelihood of achieving their mission depends critically on their ability to obtain valuable resources (Austin et al., 2006; Desa & Basu, 2013). Hence, as per organizational ecology theory, the founding rates of NPSEs are likely to be initially higher in regions with socioeconomic factors that offer greater resources. However, as the density of NPSEs in a given region

increases, the resulting interdependence for available resources would lead to density-dependence (Amburgey & Rao, 1996). Subsequently, the financial performance of NPSEs would depend on their effective management of such dependencies via mechanisms of competition and cooperation.

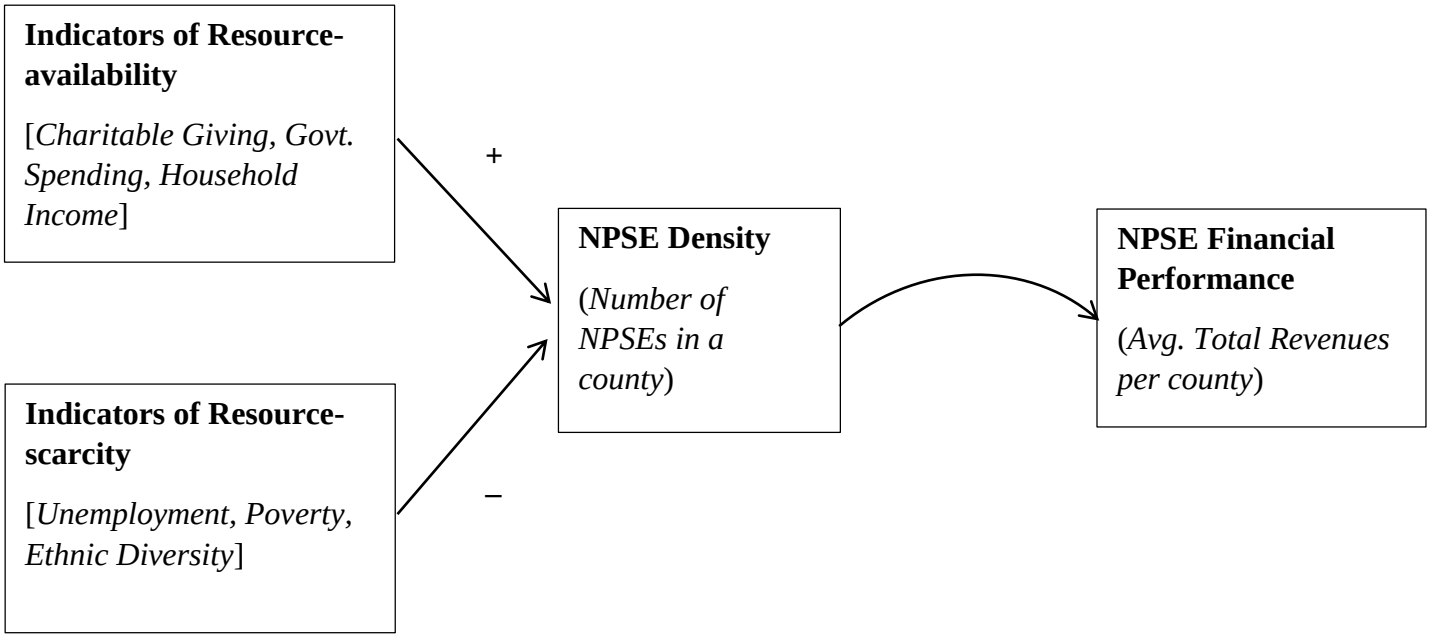
In summary, the underlying argument for my study is that 1) the regional-level socioeconomic factors indicating resource-availability is likely to influence the formation rates of NPSEs more strongly than those indicating resource-constraints; and, 2) the resulting increase in the density (agglomeration) of NPSEs in the region is likely to have both positive and negative effects on their financial performance due to the combined tenets of cooperation and competition under organizational ecology. Thus, whereas a favorable resource environment is likely to influence the founding of NPSEs, their financial performance is likely to be contingent on the density dynamics of the region and their ability to manage the dependencies created by the density. In order to test my arguments, I developed a conceptual model and tested it using archival data on human services NPSEs obtained from the National Center for Charitable Statistics (NCCS) – a data repository approved by the U.S. Internal Revenue Service (IRS), and the U.S. Census Survey data.

Currently, we do not have a full understanding of the ecology of social enterprises. This study applies the principles of organizational ecology theory to provide a greater understanding of such ecology and provide new insights into the socioeconomic factors influencing the founding of NPSEs as well as the effects of their founding rate on their financial performance. While calls for examining socioeconomic factors in SE have been made by several researchers (Austin et al., 2006; Bacq & Janssen, 2011; Haugh, 2006; Peattie & Morley, 2008; Short et al., 2009), the agglomeration (density) of social enterprises is a relatively new topic in SE that

requires further clarity, especially in terms of its relationship with the financial sustainability of social enterprises.

Additionally, from a practitioner perspective, this study provides research-based evidence on the important economic and sociocultural factors that aspiring social entrepreneurs should pay attention to, before establishing a nonprofit social enterprise. New social enterprises are more likely to fail than commercial ventures (Renko, 2013). Therefore, paying careful attention to contextual factors that enable or constrain their activities may increase the likelihood of survival and success of NPSEs. Hence, aspiring social entrepreneurs may find it useful to establish their firms in regions where they can avail these sources. Figure 1 contains the proposed overall model for my study.

Figure 1. Socioeconomic Indicators, NPSE Density and Financial Performance of NPSEs



## Chapter 2: Literature Review

The field of social entrepreneurship (SE) has been studied from various perspectives and several authors have attempted to divide or categorize the domain into sub-areas in order to facilitate a more focused approach to research (e.g., Austin et al., 2006; Pache & Chowdhury, 2012; Weerawardena & Mort, 2006; Zahra et al., 2009). These different approaches, while contributing to the development of the literature, have also contributed to the growing miscellany of viewpoints and no consensus regarding the SE phenomenon (Choi & Majumdar, 2014), primarily due to the over-emphasis on case-studies and a lack of research efforts utilizing established theories, multivariate methods, and formal, testable hypotheses (Short et al., 2009). Hence, few multi-level studies synthesize the different approaches to SE based on common theoretical arguments. For example, a number of scholars suggest that social entrepreneurs are driven by pro-social emotions that motivate them to establish their base in resource-constrained environments (Bhatt & Altinay, 2013; Desa, 2012; Di Domenico et al., 2010). While others suggest that social entrepreneurs value the economic outcomes of their efforts just as much as, if not more than, the social outcomes (Hockerts, 2006; Thompson, 2002) and that they must navigate several environmental barriers in order to achieve such outcomes (Robinson, 2006). This perspective highlights the role of institutional factors and resource-availability in SE. However, little research exists that attempts to reconcile such diverse and conflicting arguments. Such a synthesis is necessary to secure boundaries around and legitimize the field of SE (Short et al., 2009). The goal of this dissertation is to contribute in achieving this synthesis, to some degree, by using organizational ecology theory.

## Organizational Ecology

Organizational ecology, rooted in evolutionary economics and sociology, examines the births, deaths and dependencies among firms in a given population (Baum & Oliver, 1996; Hannan & Freeman, 1977, 1984). The theory uses the term 'ecology' because it establishes its principles on a biological model of organic evolution. As per the law of evolution, the genetic properties of organisms must match the environmental conditions in which they exist. If there is a good match, the organisms will survive and reproduce; if not, they will perish. This filtering process is referred to as natural selection (Fisher, 1958). Similarly, organizational ecology highlights the primary role of environmental selection in the survival and success of organization populations. Specifically, the theory suggests that socioeconomic factors, competition for scarce resources, and mutual dependencies among firms based on complimentary functions determine organizational founding and mortality rates (Baum & Oliver, 1996). Further, the theory also suggests that increasing density of firms in a given environment creates dependencies among them (Amburgey & Rao, 1996), and such dependencies may spur founding rates and reduce organizational mortality when the resource needs of firms do not overlap each other (Baum & Oliver, 1996).

Under organizational ecology, the environment is conceptualized as a resource-provider (Peli, 2009). Hence, the central tenet of the theory is that the availability of resources from an environment increases organizational populations as well as the level of competition among the populations (Boeker, 1991; Hannan & Freeman, 1989). Thus, as a dominant theory of environmental selection, organizational ecology suggests that environmental determinants, rather than an organization's strategic choice or adaptation, predicts its survival and success (Hannan & Freeman, 1984). Several researchers have used organizational ecology to provide theoretical

support for their studies. Using a sample of organizations in the U.S. brewing industry, Boeker (1991) conducted a study examining the dynamics of competition and environmental characteristics and their relation to the strategic actions of organizations. He found that factors such as density of firms, demand for brewers, price regulation and tax policy within a state influenced the sales and population of brewers. His study shows that organizational ecology offers tremendous value in studying the dynamics of environment, density, and competition among organizations. In the present study, I use organizational ecology to study these dynamics in a nonprofit context.

## Organizational Ecology and Social Enterprises

Organizational ecology acknowledges a firm's dependence on resources and recognizes that the environment provides opportunities as well as constraints to organizations. Additionally, the theory has implications for organizational legitimacy, acquired through managing the environment. For example, new organizations have to gain legitimacy in the society by institutionalizing themselves in the environment because the stakeholders may not fully understand the nature of the new ventures and their conformity to the existing rules may be in question (Aldrich & Fiol, 1994). This is equally true of nonprofit organizations and commercial firms (Singh, Tucker & House, 1986). However, when nonprofit organizations start displaying commercial aspects in their operations as is the case with NPSEs, the question that arises is – how do the tenets of organizational ecology such as legitimization and subsequent resource acquisition apply to this mixed form of organization? Hence, given the research gaps highlighted in the earlier chapter, there is a need to examine how the pattern of natural selection as well as the dynamics of competition and cooperation suggested by organizational ecology influence the establishment and survival of NPSEs.

Prior research has examined a variety of organizational phenomena using organizational ecology (Phan & Stata, 2002; Specht, 1993). This body of work also shows that selection theory can be effectively utilized to explain organizational founding and survival (Peli, 2009). Specifically, Specht (1993) and Peli (2009) have advanced our understanding of organizational founding and survival by using the tenets of selection process under organizational ecology to study commercial enterprises. The combined arguments of these authors suggest that 1) resources in an environment are strongly related to organizational founding rates, 2) the subsequent density of organizations has an impact on resource availability, and 3) the type and amount of change in the resources determine the selection of a particular organizational population by the environment. These propositions are clearly important; however, they are directed at commercial enterprises, whose resource needs are different from those of nonprofit organizations since both these forms address different market segments within industries (Abzug & Webb, 1999). Specifically, the ecological and institutional processes are different for nonprofit and for-profit sector and therefore the rules of competition for resources are also different for both these sectors (Baum and Oliver, 1996). As a result, an application of organizational ecology to study resource-acquisition and density dynamics in a nonprofit context, especially to enterprising nonprofits, would advance theoretical development and our understanding of the field.

Research suggests that the dynamics of resource mobilization, employee attraction and venture formation in NPSEs are significantly different from those in commercial firms (Austin et al., 2006; Dorado, 2006). NPSEs seldom have access to the same capital markets as commercial enterprises due to their inherent characteristics such as lack of external ownership, reinvestment of earned-income into the social cause, no distribution of dividends, and tax-exempt status

(Austin et al., 2006; Bhatt & Altinay, 2013; Dorado, 2006; Mair & Marti, 2006). For these reasons, often the primary funding sources for NPSEs are community resources, donors, government, private foundations and revenue-generating services rather than traditional venture capitalists, banks or financial institutions (Emerson, 2003; Haugh, 2007; Sharir & Lerner, 2006). NPSEs also rely more heavily on volunteer support rather than paid employees (Austin et al., 2006) and may receive assets by way of donations, which are not available to commercial firms (Haugh, 2007). From this perspective, the resource environment for NPSEs is quite different from that of commercial enterprises. In fact, under certain circumstances, the factors suggesting resource availability for one may not suggest the same for the other. For example, the presence of a large number of customers who are willing and able to purchase the firms' products represents a resource abundant environment for commercial firms. On the other hand, the customers (beneficiaries) of NPSEs, although having a high demand for the enterprises' products and services, do not usually have the required purchasing power, and therefore may not act as a source of income for these organizations. (Austin et al., 2006; Dees, 1998a). Put simply, social and commercial enterprises address different market segments (Desa & Basu, 2013), and the type and sources of their human and financial capital requirements are different. Therefore, some factors that indicate resource-abundance for commercial firms may in fact represent resource-constraints for social enterprises.

However, the SE literature has rarely taken this anomaly into account and has largely assumed that resource-constrained environments represent the same conditions for both commercial and social enterprises. I contend that the terms "resource-constraints" and "resource-availability" have different connotations for NPSEs and commercial enterprises. In particular, the socioeconomic factors of some environments may provide resources specific to the needs of

NPSEs, even though such environments may be considered resource-constrained from a traditional business perspective. For example, regions with high poverty rates represent resource-constrained environments for a business firm, but the corresponding high levels of government spending in those regions represent resource-availability for an NPSE. As a result, the dynamics of NPSE formation and performance may undertake a different trajectory than that of commercial enterprises and the combined tenets of organizational ecology put forth by authors such as Peli (2009) and Specht (1993) are likely to operationalize differently for this process, as explained below.

Social enterprises address problems created by the failures of commercial markets and governments (Dees, 2007; Robinson, 2006). However, environments characterized by failures of traditional institutions are scarce in resources and thereby likely to favor efficiency of incumbents (Peli, 2009). How then, does new social enterprise formation occur successfully? Since resource-availability signify different scenarios for social and commercial firms, I contend that NPSEs are likely to establish themselves in areas where socioeconomic factors indicate an abundance of resources *specific* to such enterprises (e.g., a high rate of charitable-giving, government spending, established foundations, volunteer support and household income). This, in turn, helps the new NPSEs pass through natural selection without changing their structures because resource abundant environments favor effectiveness more than efficiency (Peli, 2009). Research by Townsend and Hart (2008) underscores this argument by proposing that social enterprises are more likely to adopt a non-profit form (versus a for-profit form) in environments where the resources are available for its social goals (versus economic goals). Thus, the choice of location in the initial formation of NPSEs is likely to adopt the pattern of natural selection as per organizational ecology, where a venture's resource needs must match the properties of its

environment. However, as the density of NPSEs in a region increases, they are likely to exert and experience greater resource-dependencies among each other because the environment contains finite resources that gradually deplete with an increasing formation rate (Specht, 1993). Research suggests that NPSEs are facing increasing pressures for resources as competition intensifies and donor support as well as government grants decrease in number (Macedo & Pinho, 2006). Hence, whereas the nonprofit structure of a firm is likely to bring in resources initially via its legitimization in the environment and improve its revenues, the eventual increase in the density of similar firms in a region is likely to create competition for these limited resources, thereby reducing the average revenues for all the firms in the region. Stated alternatively, the density of NPSEs is likely to be greater in regions of resource-abundance, and such density is likely to have both positive and negative effects on the overall NPSE revenues in the region.

I begin the discussion of this process by first explaining resource mobilization for NPSEs. Next, I explain the regional socioeconomic factors that indicate the availability of resources specific to NPSEs' needs. This is followed by a discussion of socioeconomic factors that indicate scarcity of resources for NPSEs. Subsequently, I explain the regional agglomeration of NPSEs based on favorable socioeconomic factors, and the resource-dependencies such agglomeration creates. Finally, I explain the impact of such agglomeration on the enterprises' financial performance. Throughout this explanation, I concurrently develop the study's hypotheses corresponding to each stage of the process.

## NPSE Resource Mobilization

Table 2 provides a comparison of funding sources available to businesses, NPOs and NPSEs. As shown in the table, NPSEs have the option to avail funding from philanthropic as well as commercial sources (Froelich, 1999). However, Eikenberry and Kluver (2004) note that

changes in public policies and government initiatives (e.g., more performance-based contracts than grants) have led to a change in the resource-mobilization practices undertaken by NPSEs. Accordingly, government agencies have started giving social-welfare contracts to for-profit organizations rather than extending risk-free grants to NPSEs. Charitable foundations have also started focusing on performance-based models of philanthropy by demanding ROI (return on investment) and SROI (social return on investment) from NPSEs and exerting greater control over their activities. And in many cases, the funders themselves pressurize NPSEs to become "more market-like" (Eikenberry & Kluver, 2004, p. 133). Thus, the competition for scarce resources and a compulsion to become financially stable has forced NPSEs to divert their attention and energy from pursuing their social mission to identifying additional sources of income. This, in turn, puts the social community at risk. For example, NPSEs' pursuit of commercial revenues can shift the focus of their services from the poor to those that are able to afford them.

Table 2. Funding Sources for Commercial Ventures, NPOs and NPSEs

| **Commercial Enterprise / Business** | **Traditional Nonprofit Organization (NPO)** | **Nonprofit Social Enterprise (NPSE)** |
|---|---|---|
| Personal Investment | Personal Investment | Personal Investment |
| Friends and Family Support | Friends and Family Support | Friends and Family Support |
| Equity Finance | Govt. Grants and Contracts | Govt. Grants and Contracts |
| Bank Loan | Individual Donations | Individual Donations |
| Venture Capital | Fundraising | Fundraising |
| Angel Investments | Corporate Donations/Gifts | Corporate Donations/Gifts |
| Crowdfunding | Foundation Grants | Foundation Grants |
| Sale of Goods/Services | Community Development Funds | Community Development Funds |
| | Investment Income | Investment Income |
| | Fee-for-Service | Fee-for-Service |
| | | Sale of Goods/Services |
| | | Bank Loan |
| | | Venture Capital |
| | | Angel Investments |
| | | Crowdfunding |
| | | Ownership in For-Profit Entity |

Eikenberry and Kluver (2004) suggest that NPSEs opting for commercial sources of revenue are likely to do so more out of necessity rather than choice. This is because NPSEs must maintain a precarious balance of financial stability and social mission fulfillment (Austin et al., 2006; Foster & Bradach, 2005; Froelich, 1999). In other words, NPSEs will not pursue commercial revenue sources and jeopardize their social mission if the traditional sources of nonprofit funding are sufficiently and continuously available to them. Likewise, earned income does not replace the traditional sources of funding for NPSEs because a social entrepreneurship model supplements, not replaces, a nonprofit organization (Truong & Sanchez, 2012). Therefore, I argue that new NPSEs are initially likely to prefer resource environments that provide greater access to traditional philanthropic sources of funding to improve their legitimacy and ensure financial stability without dissolving their social mission. In support, Austin et al. (2006, p. 12) argue that social enterprises "must rely perpetually on these [traditional] sources since the operations rarely, if ever, will attain breakeven without some donor support."

As per organizational ecology, the characteristics of an organization must match the properties of its environment (Amburgey & Rao, 1996). Therefore, NPSEs are likely to be established in regions that can initially provide them opportunities to avail government grants and private donations – sources of revenue that are traditionally associated with nonprofit funding and therefore more likely to ensure a match between NPSEs and their resource environment. Nonprofit managers often lack necessary business skills to initiate commercial operations, and are usually overburdened with the challenges of meeting the social goals of their stakeholders (Clark, 2012; Foster & Bradach, 2005), this means that pursuing commercial sources of revenues very early in the process of NPSE formation may create a disconnect between the NPSE and its environment (i.e., stakeholders and other important constituents). The

challenge of initiating and successfully running an enterprise is formidable as it is, and even more so for a nonprofit entity (Foster & Bradach, 2005). As Clark (2012, p. 34) puts it, "most nonprofit cultures are influenced by the assumption that a nonprofit is not a business and should not have strategic goals." Additionally, commercial income may not be a priority for newly formed NPSEs because such income can jeopardize the legitimacy of NPSEs (Eikenberry & Kluver, 2004) and legitimacy is critical during the developmental stages of NPSEs (Dart, 2004). Thus, according to the ecology perspective, NPSEs would prefer traditional philanthropic sources of nonprofit funding in their choice of establishment location because such sources grant legitimacy to new NPSEs and keep their social missions intact. This, in turn, can ease their passage through the process of natural selection. As explained in the next section, certain regional socioeconomic factors may indicate the availability of such resources for NPSEs.

**Socioeconomic Factors Indicating Resource Availability for NPSEs**

The environment plays a critical role in the founding of an organization since it defines the criteria for resource mobilization, legitimacy and stakeholder support for the organization (Baum & Oliver, 1991; Townsend & Hart, 2008). Natural selection suggests that the conditions in the environment at the time of firm founding as well as the subsequent changes in such conditions determine the fit between the firm and the environment and ultimately the firm's survival prospects (Ben-Ner & Hoomissen, 1992). For example, resource conditions in mature markets, where the sources of legitimacy and revenues are well-established, are more likely to influence firm founding and survival than conditions in newly established markets that lack such sources (Gamm & Putnam, 1999). Conditions of resource availability or scarcity have also been suggested to influence a new firm's flexibility to choose its location in the market (Gamm & Putnam, 1999), and these conditions are often reflected in the socioeconomic characteristics of a

given region (Grønbjerg & Paarlberg, 2001). Hence, regional socioeconomic factors can be important indicators of resource availability or scarcity in that region.

Literature on nonprofit management has studied several socioeconomic indicators in trying to understand the founding, survival and performance of NPOs. For example, Joassart-Marcelli and Wolch (2003) examined the rate of government spending on antipoverty services in metropolitan areas in southern California. They found that NPOs operating in the area of human services are heavily dependent on government spending in addressing regional poverty issues. Thus, in their study, the amount of government spending for a metropolitan area emerged as an important socioeconomic factor influencing nonprofit activity. In another study, W. Bielefeld, Murdoch, and Waddell (1997) examined the influence of income levels, population age and social diversity on the location of NPOs. The authors found that NPOs were more likely to be established in regions with higher levels of income, old-aged residents and a greater amount of minority population. Thus, income levels, age, and ethnic diversity emerged as important socioeconomic indicators of NPO location in their study. Similarly, several other indicators such as the level of social cohesion and demand heterogeneity (Ben-Ner & Hoomissen, 1992), small and stable communities (Gamm & Putnam, 1999), and religious diversity in a region (Grønbjerg & Paarlberg, 2001) have been found to influence the rate of nonprofit activity in a region.

From the perspective of social entrepreneurship, indicators of both philanthropic and commercial sources of revenue in a region may be important because social enterprises utilize both these sources as shown in Table 2 (Dees, 1998a; Eikenberry & Kluver, 2004). Hence, prior to their launch, new NPSEs are likely to consider the availability of both these types of sources. The charitable giving rate, government spending level (number of grants and contracts), and

household income of a region are important socioeconomic factors that indicate whether NPSEs may be able to avail the financial resources necessary for their operations.

### *Charitable Giving*

One of the primary sources of revenue for nonprofit entities is the individual donors who provide them with monetary and non-monetary resources (Wade, 2000). Charitable donations, including non-monetary gifts given in kind, are one of the major ways in which NPOs fund themselves (Blackwood et al., 2008; Froelich, 1999). The nonprofit status of NPOs has been a potent means to attract voluntary and philanthropic resources from individuals. Extant research suggests that NPSEs also rely in large part on traditional philanthropic sources of finance such as donors and government grants (Austin et al., 2006; Sunley & Pinch, 2012). As Sunley and Pinch (2012, p. 119) state, "it is unrealistic to expect most SEs [social enterprises] in deprived urban areas to move radically and substantially away from charitable and public sector funding as these funding sources are too closely tied to their skills, capabilities and priorities." Research suggests that those social entrepreneurs who decide to obtain pro-bono finance from external sources rather than self-finance the venture during the early stages of social venture formation, have a greater probability of establishing and running a successful venture (Katre & Salipante, 2012). This means that successful NPSEs are more likely to obtain charitable donations during their initial stages.

The rate of charitable giving in the U.S. has considerably grown over the years and the total charitable giving for 2013 was reported to be an estimated $335.17 billion with individual contributions representing approximately 72% of this amount (Kalugyer, 2014). Charitable giving by U.S. individuals has been largely directed at religious institutions and nonprofits in the area of human services, education, and health, among others (Clotfelter & Ehrlich, 2001).

Research suggests that individual motivation to donate may be driven by several factors such as personal beliefs and attitudes, tenure of residence, employment status, personal attributes, sense of community, and prior receipt of assistance from a charitable organization (Chang, Okunade, & Kumar, 1999; Clary & Snyder, 1995). Additionally, the context and culture surrounding an individual also influences charitable giving. For example, an environment of liberal political and cultural ideology (Wolpert, 1995), a culture of elite philanthropy (Ostrower, 1997; Prince, File, & Gillespie, 1993), an increase in disposable income (Schervish & Havens, 1998; Steinberg, 1990) and opportunities to participate in civic and charitable activities (Van Slyke & Brooks, 2005) improve the individuals' likelihood to make charitable donations. Therefore, since both individual and environmental variables influence people's motivation to donate, founders of new NPSEs are likely to be attracted to regions where socioeconomic factors and characteristics of the residing population are conducive to their fundraising efforts.

NPSEs conduct fundraising activities in order to obtain donations (Austin et al., 2006; Burnett, 1992; Gras & Mendoza-Abarca, 2014). These activities are aimed at garnering the trust of communities, building reputation, and strengthening the relations with key donors and stakeholders by effectively communicating to them the firm's capabilities (Austin et al., 2006; Dee & Henkin, 1997). Powerful donors help NPSEs by providing legitimacy and recognition and thereby enabling them to be embedded in the environment (Froelich, 1999; Galaskiewicz, Bielefeld, & Dowell, 2006). Since NPSEs succeed by way of developing strong local networks of donors and obtaining support from such networks (Katre & Salipante, 2012), regions witnessing a greater density of NPSEs are likely to be characterized by inhabitants that are committed to the goals of the NPSEs and are willing to support them through charitable donations. Stated alternatively, new NPSEs are likely to be founded in regions having high

charitable giving rates. Research on social cohesion - which is the extent to which a society is socially and economically homogenous (Easterly, Ritzen, & Woolcock, 2006) - provides more insights on this issue. People in socially cohesive communities that espouse shared values and believe in facing shared challenges are more likely to participate in civic and charitable activities, which in turn positively influence the rate of charitable giving (Beauvais & Jenson, 2002; Van Slyke & Brooks, 2005). NPSEs also require strong social cohesion and support in order to come into existence (Haugh, 2007). From this perspective, NPSEs and their donors are likely to coexist in socially cohesive societies whose populace is willing to contribute to the efforts of NPSEs.

As per organizational ecology, the survival and vitality of organizations depend on the match between their structures and the resources available from their environments. Therefore, the type and amount of change in the available resources dictate the type of organization selected (Amezcua, Grimes, Bradley, & Wiklund, 2013; Peli, 2009). Charitable donation is also a unique type of resource available specifically to nonprofit firms, and indicates the socioeconomic conditions of a region and the changes therein. For example, during the 'Great Recession' of 2007 in the U.S., the income from charitable contributions declined substantially for all types of nonprofit organizations except religious institutions due to mass erosion of individual wealth (Grusky, Western, & Wimer, 2011). Contrarily, the revival of the U.S. economy during the last four years has seen a corresponding increase in the total amount of charitable donations made to nonprofit organizations (Kalugyer, 2014). Thus, the changes in the rate of charitable giving are indicative of the social and economic conditions of a region that directly suggest the availability or unavailability of philanthropic resources for NPSEs in that region. Organizational ecology would suggest that an increase in charitable donations represent conditions that are conducive to

the founding of NPSEs since a nonprofit structure is best suited to match an environment offering greater philanthropic resources. Therefore, an increase in the charitable giving rate for a region is likely to influence the rate of NPSE founding in that region. Subsequently, I hypothesize:

*Hypothesis 1: Charitable giving will positively influence the density of human services NPSEs.*

### *Government Spending*

Government grants and contracts comprise a second major revenue stream for nonprofit organizations and have been the traditional sources of finance for NPOs. Historically, the relationship between government and nonprofit organizations has been complex and dynamic since their activities may supplement, complement or stand in conflict with each other's (Akingbola, 2005; D. R. Young, 2000). However, underlying this relationship is a mutual goal to provide the citizens a wide range of essential goods and services under conditions where traditional welfare and market mechanisms fail to provide them. This is done by privatizing the services traditionally provided by the government such that NPOs deliver those services using the funding obtained from government by way of grants, contracts or fee-for-service arrangements (Smith & Grønbjerg, 2006). Such an arrangement is beneficial to both the parties for several reasons. First, the government can avoid transaction costs and reduce bureaucratic inefficiencies since it is cheaper and more efficient for it to contract externally rather than expand welfare activities internally (D. R. Young, 2000). Second, in addition to financial resources, the NPOs can obtain legitimacy, valuable information, expertise and technical assistance from the government (Saidel, 1991). Third, the NPOs may be in a better position to

obtain accurate information on the heterogeneity of demand because they are established within communities in need, and by the virtue of such proximity, they may be able to avoid unnecessary information overload usually faced by the government and differentiate their services as per the preferences of the citizens (Coase, 1988; D. R. Young, 2000). In short, the arrangement between NPOs and state, local or federal government to provide welfare services is usually mutually beneficial to both the parties, which makes the procurement of government grants and contracts a valuable resource-mobilization activity for NPOs.

Government grants have been the foundation of nonprofit financing in the United States (Guo, 2007; Salamon, 1987, 1995). The U.S. government was the largest contributor to nonprofit finances during the 20$^{th}$ century and has continued to be a major source of revenues for NPOs (O'Neill, 2002; Salamon, 1987, 1995; Van Slyke, 2002). For instance, in 2004, the federal government spent an estimated $317 billion on nonprofit organizations (Czerwinski, 2007). However, as a percentage of overall nonprofit revenues, the income received from government sources has been on a steady decline as more nonprofits start relying on private sources for their funding needs (Eikenberry & Kluver, 2004; Froelich, 1999). For example, whereas the government was the single largest financer of U.S. NPOs in 1980s (Salamon, 1987), its share in the total revenues of NPOs in 2005 and 2009 was reduced to 29% and 32% respectively (Blackwood et al., 2008; Roeger, Blackwood, & Pettijohn, 2012). Even post-recession, in 2012, the share of government income in the total revenues for NPOs in the U.S. remained at 32.3% (McKeever & Pettijohn, 2014). This trend has been attributed to an increase in the number of NPOs and subsequent competition for grants and contracts along with the increasing constraints on government's spending ability due to the problems associated with NPO's performance measurement (Carman, 2008; Froelich, 1999; Macedo & Pinho, 2006; Marlar, 2014; Van Slyke,

2007). On the other hand, government support is critical to early-stage NPOs since it provides the highly needed legitimacy for startup charities (Saidel, 1991). This means that the availability of government grants and contracts is a coveted and limited resource for NPOs. As such, this resource is likely to be even more important for NPSEs, as explained below.

The previously mentioned figures on government support are inclusive of *all* nonprofit charities in the U.S., which include a large number of traditional NPOs such as religious institutions, public universities, and social/recreational clubs that do not strictly fall under the purview of NPSEs. Specifically, from the perspective of human services NPSEs, the focus of this study, government grants and contracts are likely to hold a greater importance because NPSEs' mission is to address critical social problems plaguing general public such as poverty and illiteracy – one of the fundamental purposes for which the government extends grants and contracts (Lynn Jr, 2002; Rich, 1989).

Research suggests that government provides funding in areas where critical human services are needed such as underdeveloped regions where the traditional market mechanisms fail to improve life conditions (Garrow, 2011; Joassart-Marcelli & Wolch, 2003). Such regions would represent resource constraints from a traditional business perspective since they perform poorly on economic parameters such as the residing population's income and purchasing power. However, from the perspective of nonprofit entities, such regions can be said to represent resource opportunities since NPSEs are more likely to obtain grants and contracts from the government by virtue of operating in such regions. Put alternatively, the amount of government grants and contracts issued in a region are indicative of adverse social conditions in that region, but they simultaneously also represent a favorable economic opportunity for NPSEs in that region. In fact, in absence of government support or assistance from a philanthropic foundation

in such regions, new NPSEs are likely to find it very challenging to raise capital required for successful operations (Austin et al., 2006). As mentioned earlier, the traditional resource-providers such as venture capitalists and banks are averse to providing finance to new NPSEs. Additionally, private donors who have the capability to contribute significant amount of finance to new NPSEs are more likely to be residing in upper to middle class localities rather than the poor communities that NPSEs aim to serve, thereby making successful fundraising difficult for NPSEs since these donors may find it difficult to evaluate the NPSEs' operations from their remote location. Moreover, the socioeconomically underprivileged and therefore usually poor communities are not likely to be in a position to pay market rates for NPSEs' goods and services. Hence, another important source of revenue – the customer – is also likely to be a weak resource for new NPSEs. In this situation, philanthropic dollars from the government in the form of grants and contracts are likely to become one of the most important and necessary financial resources for new NPSEs, without which it would be difficult for them to sustain their operations. Especially the human services NPSEs that ensure the provision of basic services to poor populations are not very likely to succeed without government funding (Austin et al., 2006; Joassart-Marcelli & Wolch, 2003).

Organizational ecology suggests that environmental conditions at the time of founding determine the type of organization that is selected (H. Aldrich, 2007; Baum & Oliver, 1996; Hannan & Freeman, 1989). As stated by Garrow (2011, p. 446), under organizational ecology, "the ability of the organization to obtain resources is seen as a function of the fit between the organization and the ecological niche in which the organization is located." The ecological niche for NPSEs is characterized by provision of basic services to underprivileged populations and greater governmental interest in their operations (due to their activities fulfilling public policy

initiatives). Since this ecological niche is matched by NPSEs' characteristics namely, the focus on solving social problems and a reliance on government funding, those regions receiving greater attention from the government by way of public spending are likely to be the perfect locations for NPSE establishment as per the tenets of organizational ecology. Therefore, NPSEs are more likely to be established in regions experiencing a greater availability of government grants and contracts.

*Hypothesis 2: Government spending will positively influence the density of human services NPSEs.*

### *Household Income*

One of the defining characteristics of NPSEs is that they rely on commercial income by way of sale of goods and services in addition to philanthropic sources of revenues. In fact, the ability of NPSEs to generate earned income is a primary factor differentiating them from NPOs (Boschee & McClurg, 2003). Therefore, another socioeconomic indicator that can influence the availability of finance to NPSEs and subsequently their decision on location is the average household income in the region where the NSPE decides to operate. A high level of regional household income is likely to benefit NPSEs in two ways. First, a high or at least moderate level of income among the community members would ensure that they are able to purchase the products or services that NPSEs offer. Second, an increase in household income is likely to result in a greater likelihood of charitable giving, which is one of the primary sources of revenue for NPSEs. Both these arguments are explained below.

NPSEs indulge in commercial activities by way of sale of goods and services and receive income in various forms such as tuition for imparting education or training, fees for providing

basic amenities, or rent for leasing property (Haugh, 2005; Williams, 2003). However, in order for such income to accrue to a NPSE, adequate demand and a consumer base for the NPSE's goods and services must exist. Individuals consuming NPSEs' goods and services are very important stakeholders and NPSEs are accountable to these consumers by way of their trading activities, in a fashion similar to commercial firms (Allan, 2005). This is because, in addition to procuring charitable resources from the philanthropic market, NPSEs also compete for resources with commercial firms in traditional markets where the conventional principles of economics apply (Lasprogata & Cotten, 2003). This means that the products and services of social enterprises undergo the same criteria of evaluation as those of commercial firms when they are targeted at traditional consumers, thereby requiring NPSEs to rely on the same consumer-oriented strategies for their commercial activities as traditional businesses. Toby Sherman, director of food services for Greystone Foundation, in an interview with Harvard business professor, James Austin, states:

> If your expectation is that people are going to support your business because of who you are and what you do as an organization, those people may come to you once. Thereafter, most people buy based on what they need as consumers; they will evaluate your product on price, quality and service – not pity. (Lagace, 2002).

The above arguments suggest that consumer identification and satisfaction holds as much importance for an NPSE as for a traditional business venture. Therefore, NPSEs are likely to evaluate potential markets and consumers for their products and services in a manner similar to commercial firms. Social entrepreneurs have been found to follow the same operational processes as their commercial counterparts while procuring resources and developing organizational structures (Meyskens, Robb-Post, Stamp, Carsrud, & Reynolds, 2010). For example, social entrepreneurs undergo a strict evaluation of their business model and a due

diligence procedure similar to that of commercial entrepreneurs in the process of obtaining funding from philanthropic foundations (Shapiro, 2012). Additionally, research suggests that institutional frameworks in a country equally influence both social and commercial entrepreneurship (Estrin et al., 2013). Therefore, the socioeconomic characteristics of a potential market that are favorable for commercial firms are likely to appeal to NPSEs as well.

A thorough understanding of consumer markets is likely to be very important for NPSEs because resources and opportunities available to them from such markets are valuable yet considerably fewer than those available to commercial firms (Austin et al., 2006; Dees, 1998a). A high level of household income in a region is a socioeconomic indicator of demand growth, urbanization and a well-developed market, and represents a favorable context for new venture formation (Davidsson & Wiklund, 2001; Reynolds, Storey, & Westhead, 1994). As a result, an increase in the income levels of population in a region positively influences the rate of new venture formation in that region (S. Y. Lee, Florida, & Acs, 2004). Since NPSEs compete with businesses to capture market share and often implement the same resource-utilizing strategies as traditional enterprises (Boschee & McClurg, 2003; Dees, 1998a; Meyskens et al., 2010), the regional factors of income and wealth that spur the establishment of traditional enterprises may also influence the formation of new NPSEs. Specifically, the entrepreneurship literature suggests that higher income is associated with greater human capital, population growth and higher intensity of industrial activity in a region – factors that increase the establishment rate of new enterprises (Armington & Acs, 2002; Bird & Wennberg, 2014; S. Y. Lee et al., 2004). From this perspective, an increase in the average household income in a region is likely to influence the formation of new NPSEs in that region.

Second, regions with higher income and wealth are likely to benefit NPSEs because the residents in such regions have been found to indulge in higher levels of charity (Ostrower, 1997; Schervish & Havens, 2001; Van Slyke & Brooks, 2005). Therefore, an NPSE's fundraising efforts are more likely to succeed if it is able to establish itself and develop a strong network in a region having a high level of average household income. Research in nonprofit literature suggests that an increase in income positively influences the rate of charitable giving (Schervish & Havens, 1998, 2001; Van Slyke & Brooks, 2005). For example, using survey data on the residents of metropolitan Atlanta, Van Slyke and Brooks (2005) conducted an empirical examination of socioeconomic factors influencing the rate of charitable giving and found that an increase in income has a positive effect on charitable giving. Specifically, a 10% increase in income resulted in a 9.3% increase in giving. Similarly, using data from a multitude of government records and surveys, other scholars have concluded that a positive change in income, wealth and economic growth is associated with a greater tendency for charitable giving among individuals (e.g., Havens, O'Herlihy, & Schervish, 2006; Schervish & Havens, 1998, 2001). Charitable contributions, as explained earlier, are one of the fundamental sources of income for new NPSEs. Therefore, being located in high-income regions would render a greater probability of success for NPSEs' fundraising efforts since residents in these regions are more likely to donate to social causes.

Additionally, over the years, the wealthy citizens of United States have developed a culture of 'elite philanthropy' that has benefitted social purpose organizations tremendously (Ostrower, 1997). Elite stakeholders can benefit NPSEs in several ways. First, a dedicated and continuous financial support from just a handful of wealthy donors may equal or even exceed the contributions from hundreds of low-income donors, thereby saving NPSEs a significant amount

of time and fundraising efforts and allowing them to devote more time to their mission-related activities. Second, powerful donors in high income communities may serve as board members on NPSE and bring their expertise and networks as resources for the NPSE, thereby improving the NPSE's reputation during its initial stages (Galaskiewicz et al., 2006; Moore, Sobieraj, Whitt, Mayorova, & Beaulieu, 2002). Third, NPSEs may be able to charge competitive market rates for their products and services if they are targeted at wealthy customers by the virtue of locating in high income regions. In fact, by promoting the importance of their social mission, NPSEs may be able to gain a competitive advantage in high income markets since customers often prefer to contribute to the NPSE's social mission by way of purchasing its products, provided that the price and quality of the NPSE's products matches those of commercial firms (Allan, 2005). Summarizing these benefits, it can be argued that an increase in the average household income of a region is representative of a favorable socioeconomic condition, which indicates resource-availability for NPSEs.

The evolutionary view under organizational ecology assumes that firms possess an inherent structural inertia, and as the environment changes, natural selection replaces inert firms with those firms whose structure matches the new environment (Hannan & Freeman, 1984, 1989). From this perspective, an increase in the household income of a region represents a positive change in its socioeconomic environment that favors economic exchange, thereby requiring traditional NPOs to be replaced by NPSEs. This is because an increase in average household income is an indicator of economic growth and developing markets that are less likely to rely on the charitable services of traditional NPOs. Correspondingly, the philanthropic sources of support such as government grants would be difficult to obtain for NPOs in such regions, thereby requiring them to conduct commercial activities in the pursuit of their social mission

(i.e., NPSEs). Since a populace with higher levels of income is conducive for NPSEs' resource requirements as explained earlier, the regions witnessing an increase in household income would now match the structure of NPSEs as per the tenets of organizational ecology, thereby ensuring that natural selection favors NPSEs over traditional NPOs. Therefore, an increase in the household income of a region is likely to have a positive effect on the density of NPSEs in that region.

*Hypothesis 3: Household income will positively influence the density of human services NPSEs.*

## Socioeconomic Factors Indicating Resource Constraints for NPSEs

The previous section explained how the positive factors in the resource environment of a region (i.e., availability of resources specific to NPSEs) is likely to influence NPSE density. In the next sections, I show how the *negative* factors in the resource environment (i.e., unavailability of resources specific to NPSEs), as characterized by three socioeconomic indicators namely, poverty rate, unemployment rate and ethnic/racial diversity may influence NPSE density over time. These regional conditions indicate a presence of demand-side factors, but a corresponding lack or shortage of supply-side factors that may have a significant influence on NPSEs.

### *Poverty Rate*

Poverty is a problem of global magnitude that has largely remained stable over the course of last three decades (Bruton, Ketchen, & Ireland, 2013). Moreover, poverty can be measured at a regional level as well as on a national scale, such that regions with stark differences in their level of development and socioeconomic characteristics can be found even within a country

(Webb, Kistruck, Ireland, & Ketchen Jr, 2010). In the U.S., regional poverty and economic inequality has a long history of being a result of social and economic policies, and regions experiencing high levels of poverty especially in the rural areas are characterized by fewer opportunities for employment, unstable infrastructure, low rates of investment and social and spatial isolation (Tickamyer & Duncan, 1990). From the perspective of NPSEs, high poverty levels in a region may significantly reduce the availability of finance from certain sources important to NPSEs, as explained below.

NPOs in the U.S. have historically enjoyed a certain level of competitive advantage over for-profit firms by way of non-rivalry in the provision of public welfare services and being able to offer their products at below-market rates or at no cost at all (Ben-Ner, 2002). At the same time, nonprofits have suffered certain disadvantages by not being entrepreneurial and by having to rely on government grants and private donations for survival. This structure has traditionally worked well for NPOs as it has helped them address the needs of populations in distressed regions by acting as agents of the government and procuring donor trust by focusing purely on mission-related activities (Joassart-Marcelli & Wolch, 2003; Smith & Grønbjerg, 2006; Twombly, 2001; D. R. Young, 2000). However, this situation has changed drastically since the advent of social entrepreneurship. Particularly, by introducing the commercial logic into nonprofit activities, NPSEs have created a disarray in the traditional image of an NPO (see Eikenberry & Kluver, 2004). This disarray may have serious implications for NPSEs' ability to procure resources in regions of poverty. Specifically, when NPSEs operate in high poverty regions, the individual donor support for NPSEs, a significant part of NPSEs' funding mix, is likely to reduce for two reasons. First, most stakeholders believe that nonprofits should refrain from trade and commerce (Dees, 1998a; Froelich, 1999). Therefore, conducting business in poor

regions, where the residents aspire for cost-free welfare only further tarnishes the image of NPSEs in the eyes of the average donor. As a result, commercial activities by NPSEs reduce the trust and confidence of its stakeholders, especially valuable donors (Eikenberry & Kluver, 2004; Foster & Bradach, 2005; D. R. Young & Salamon, 2002). Moreover, the donors may presume that the NPSE is self-sufficient and does not require their support, leading them to withdraw their support and make donations to other worthy organizations (Gras & Mendoza-Abarca, 2014; Gronbjerg, 1991). Second, poor residents are unlikely to be in a position to donate to NPSEs due to low income. Hence, individual and private donations are likely to be a weak source of finance for nonprofits operating a business model in poor regions.

A lack of donations may not be a significant problem for NPSEs operating in urban or economically developed regions (since they can survive by way of earned income). However, in the regions of poverty, where consumers are rarely in a position to pay market rates or provide a sustained stream of revenues to firms, losing a steady stream of donations may pose a considerable risk for NPSE survival and may force them to exit. Likewise, revenue from sale of goods and services is also likely to be a weak source of income for NPSEs in high-poverty regions because the beneficiaries (customers) are rarely in a position to pay competitive market rates for the NPSEs' products (Austin et al., 2006). With reference to NPSEs, Foster and Bradach (2005, p. 98) note, "In many earned-income ventures, the intended users can't afford the products or services." Thus, private donations, income from trade, and support of well-established infrastructure are resources that are difficult to obtain for NPSEs operating in regions of poverty. In such situations, the philanthropic income received from government and charitable foundations is likely to be the only major source of NPSE funding. However, as consistently found in the literature, these charitable streams of revenues have also been fast declining due to a

tremendous increase in the number of NPOs over the years and a subsequent increase in the competition for scarce resources (Allen, 2013; Dees, 1998a; Froelich, 1999; Gronbjerg & Salamon, 2002). Specifically, since government/foundation grants also form the traditional funding sources for NPOs, the NPSEs operating in high-poverty regions are likely to face an overlap with resource requirements of NPOs, thereby creating an environment of competition between them. This argument is supported by Joassart-Marcelli and Wolch (2003), who suggest that nonprofits increasingly turn to the government for support when they operate in resource-poor or economically distressed environments and may not succeed without such support. Subsequently, since NPSEs in poor regions are likely to face a competition with NPOs for the scarce and valuable grants, and since NPOs are likely to possess greater legitimacy and likelihood of obtaining such grants due to their non-commercial nature (Gras & Mendoza-Abarca, 2014), new NPSEs are less likely to be formed in regions of increasing poverty rate in absence of philanthropic sources of revenues.

Organizational ecology suggests that organizations with a nonprofit structure require philanthropic support such as government grants when operating in poor regions (Garrow, 2011; Joassart-Marcelli & Wolch, 2003). Further, organizational ecology suggests that the type and amount of resources in the environment determine the type of organizational population to be selected. Since the customers of NPSEs in poor regions may not be a significant source of revenue, the commercial activities of NPSEs may not match the availability of income via trade and require the NPSEs to rely more on the philanthropic sources in their funding mix. Consequently, if the philanthropic income is in short-supply or difficult to obtain due to competition with NPOs, the natural selection process would be unlikely to choose populations of NPSEs. Put alternatively, high levels of poverty in a region indicate a resource-constrained

environment for NPSEs and are eventually likely to negatively affect NPSE density as per the tenets of organizational ecology.

*Hypothesis 4: Poverty rate will negatively influence the density of human services NPSEs.*

### *Unemployment Rate*

In the traditional entrepreneurship literature, low levels of unemployment have been found to be both, the cause as well as the outcome of business creation and growth (I. Bull & Winter, 1991). Research on the establishment and growth of commercial firms has found that, whereas the establishment of new firms is a necessary requirement for the economic development of a region, the likelihood of starting a new firm depends on the availability of skilled labor and support services, among other resources in a region (Begley, Tan, & Schoch, 2005; Galbraith & De Noble, 1988; B. Kirchhoff & Acs, 2000; B. A. Kirchhoff & Phillips, 1988).

SE research shows that establishing a new social venture by nascent entrepreneurs is even more difficult than forming a commercial venture (Renko, 2013). A major reason for this is the wide scope of social ventures' activities, which benefits the general public instead of a specific group of individuals. Therefore, the probability of stakeholders such as customers, employees and investors committing to the social venture's commercial goals is likely to be very low since the benefits do not accrue to these people directly (Murphy & Coombes, 2009; Renko, 2013). In an environment of high unemployment, it is likely that such a commitment would be difficult to obtain since unemployed individuals are more likely to be concerned about their own financial problems – for example, high levels of unemployment have been found to be correlated with low

levels of volunteering (Ewing, Govekar, Govekar, & Rishi, 2002). Therefore, in such situations, it would be difficult to recruit volunteers – the primary workforce for NPSEs (Amin, 2009; Austin et al., 2006). Furthermore, the novelty and innovation in products and services that social enterprises are famous for, is also likely to add to the ventures' woes since social innovations bring along the problems of high development expenses, demand uncertainty, and decrease in legitimacy (Renko, 2013). For these reasons, the support from core constituents of commercial markets (i.e., employees, customers and investors) is likely to be very limited and difficult to obtain for NPSEs when they operate in regions of high unemployment.

First, regions of high unemployment often reflect a low level of human capital and low-skilled labor. On the other hand, a high level of human capital, especially advanced education and managerial experience, is important for successful entrepreneurial entry into markets (Florida, 2002a, 2002b; Ho & Tan, 2008; Kim, Aldrich, & Keister, 2006; Möller, 1990; Partridge & Rickman, 1997). Successfully running an NPSE requires a blend of higher-level business skills such as formulating complex strategies for balancing multiple goals, developing a strong internal governance system, calculating break-even income/cost levels, setting effective prices for products/services, and developing marketing techniques (M. Bull & Crompton, 2006; Lyon & Ramsden, 2006; Moreau & Mertens, 2013). However, research suggests that those individuals who possess such skills frequently leave areas of unemployment to find better opportunities elsewhere, leaving behind the most unprivileged members of the community who are often not only unemployed and low-skilled but are also in need of education, training and support for emotional and psychological problems (Borzaga, Loss, & Nyssens, 2006; Florida, 2002a; E. McKeever, Jack, & Anderson, 2015; O'Shaughnessy, 2008; Yankow, 2004). Hence, a growing rate of regional unemployment is only likely to aggravate the challenges for NPSE formation.

Second, a major problem for NPSEs established in high unemployment regions is that although they purport to prepare individuals in these regions for mainstream markets requiring higher skills, the jobs these NPSEs create are primarily low-skilled and do not assist workers in moving on to better employment opportunities (Cooney, 2013). Additionally, the ability of NPSEs to guarantee employment to disadvantaged workers depends strongly on the availability of wage subsidies from the government and other philanthropic support, in absence of which, NPSEs cannot afford to pay higher wages to their employees (Cooney, 2013; Gardin, 2006). Hence, without government support, NPSEs are unlikely to have sufficient finance for their employment, growth and training activities in regions of high unemployment.

Third, a NPSE competes with commercial and other non-profit organizations based on the superiority, quality and affordability of its products in order to fulfill its economic goals, however, in regions of high unemployment it recruits people who face multiple difficulties in being employed (e.g., learning problems, past offences, long-term unemployment) and have poor business skills, ultimately leading to a fledgling business model (Cook, Dodds, & Mitchell, 2003; Gawell, 2013; Hynes, 2009; McBrearty, 2007; Peattie & Morley, 2008). Therefore, according to the tenets of organizational ecology theory, a mismatch is likely to be created between the internal competency and external environment of NPSEs, resulting in them not being selected by the environment. The only strong resource base for NPSEs when they operate in disadvantaged areas such as high unemployment regions is likely to be grants from the government and foundations or donations from the general public and corporations (Austin et al., 2006; Chapman, Forbes, & Brown, 2007; Hynes, 2009; Jiao, 2011). Several other SE scholars have found that government and public support forms a substantial portion of the funding mix for NPSEs operating in marginalized regions and the NPSEs are often highly dependent on such

support (e.g., Gawell, 2013; Hynes, 2009; McBrearty, 2007; O'Shaughnessy, Casey, & Enright, 2011; Seanor & Meaton, 2007).

From a resource perspective, regions of high unemployment are likely to present significant constraints on successful formation and operation of NPSEs' business model, and in absence of support from government, foundations and other philanthropic sources, NPSE survival in such regions is likely to be challenging. Subsequently, as per organizational ecology theory, the commercial model of nonprofits is unlikely to be selected in marginalized regions. Therefore, I hypothesize:

*Hypothesis 5: Unemployment rate will negatively influence the density of human services NPSEs.*

### *Racial/Ethnic Diversity*

Diversity is a multidimensional concept in sociology that explains differences among individuals in terms of their gender, age, race, ethnicity, religious beliefs, education or socioeconomic status (M. B. Anderson, 1996; S. Y. Lee et al., 2004; Thomas & Darnton, 2006). The concept is based on the premise that each individual is unique, and since individuals are interrelated with the society, any change in the society will affect different members of the society in different ways (M. B. Anderson, 1996). While diversity may manifest in several forms, it is examined in this study from the viewpoint of race and ethnicity, since that is the generally understood and widely accepted form of diversity researched in the U.S. (Sparber, 2010).

A bulk of research on ethnic diversity has largely focused on commercial entrepreneurship either in technology industries or urban areas and metropolitan cities where the

necessary infrastructure, resources, opportunities for developing human capital and business support for ethnically diverse entrepreneurs already exist (e.g., D. Audretsch, Dohse, & Niebuhr, 2010; Barrett, Jones, & McEvoy, 1996; Jennifer Lee, 2001; S. Y. Lee et al., 2004; Ottaviano & Peri, 2006; Ram, Jones, Abbas, & Sanghera, 2002; Saxenian, 1999; Thomas & Darnton, 2006; Yoon, 1997). Subsequently, little empirical research explains the role of ethnic diversity in spurring social entrepreneurship in the marginalized regions of United States.

Although NPSEs incorporate commercial aspects of operation, their ultimate goal has a social nature and therefore their business activities must ultimately lead to resolving a social problem. This, in turn, requires the NPSEs to mobilize support and resources within a community. However, in culturally heterogeneous communities, mobilizing mass support and resources for the NPSE's social goal is likely to be challenging because individuals in such communities have been found to be lacking trust in each other, have little confidence in government bodies, rarely conduct charity or engage in volunteering work, and are socially withdrawn (Putnam, 2007; Wickes, Zahnow, White, & Mazerolle, 2014). According to Putnam (2007, p. 150), residents of such regions have "less expectation that others will cooperate to solve dilemmas of collective action". This may pose a hindrance for the successful achievement of NPSEs' social goals since NPSEs rely extensively on collective action and community support in order to achieve their mission (Moreau & Mertens, 2013; Peredo & Chrisman, 2006; Sarpong & Davies, 2014). Thus, when the needs and demands of a particular ethnic segment of the population collide with those of the other, fulfilling them may be quite difficult for NPSEs due to a lack of unanimous support for the issue. Moreover, NPSEs are theoretically supposed to be founded in marginalized regions such as areas of high poverty or income inequality; however, empirical research suggests that social cohesion and community belongingness are especially

likely to be missing in such regions (Letki, 2008; Twigg, Taylor, & Mohan, 2010) because the competition for scarce resources in such regions is likely to create negative racial perceptions and conflicts (Burns & Gimpel, 2000; Putnam, 2007; Sampson & Groves, 1989; Wickes et al., 2014). Therefore, it is likely to be challenging for NPSEs to develop trustworthy social networks and supportive social capital in a resource deprived region that is also ethnically diverse, despite recognizing that local support and community networks are necessary for NPSEs to flourish (Bhatt & Altinay, 2013; Katre & Salipante, 2012).

Human participation in activities fostering social welfare is an essential factor for the survival and success of all nonprofit human service organizations (Anheier, 2014; Kil, 2012). Similarly, NPSEs also require the help of people who actively work as volunteers, members and clients to fulfill the NPSEs' social goals (Austin et al., 2006; Moreau & Mertens, 2013). Specifically, developing extensive community networks and generating favorable social capital are indispensable activities for the successful functioning of NPSEs, which makes community support and network relationships the foundation upon which new NPSE formation occurs. However, when a community is fragmented, non-cohesive, and full of diverse or conflicting needs, its members are unlikely to support the aim of the NPSE, which may be perceived as catering to only one section of the community. This argument is supported by Alesina and Glaeser (2004) who find that regional fractionalization, as characterized by ethnic heterogeneity, reduces the generosity extended to poor populations. Similarly, empirical research suggests that the inhabitants of racially diverse regions are less likely to indulge in social activities or support redistribution of income due to the fear of providing unfair advantage to other races (Alesina & Ferrara, 1999; Alesina & La Ferrara, 2002). In fact, community opposition is an increasingly common reaction to controversial human service activities in the United States (Takahashi &

Dear, 1997). Research in the nonprofit literature also provides further evidence for this argument. For example, several studies on the location of NPOs providing services to children and homeless individuals in the United States have found that the NPOs tend to locate in areas where local communities are willing to host and support such organizations, donations and volunteer support is sufficiently available and the overall culture is open to accepting controversial human service facilities (J Lee, Wolch, & Walsh, 1998; Wolch, Moon, & Lee, 1990; Wolch & Walsh, 1998).

In summary, increasing racial or ethnic diversity in a region is likely to create significant problems in mobilizing community support and procuring resources such as volunteers, information, and donations for the NPSE's human service mission. Subsequently, such a region projects a resource-constrained environment for NPSEs, which means that the NPSEs must rely on the government or other external source of support for their resource needs. Particularly, a change in the ethnic composition of the region is likely to alter the previous match between the NPSE's mission and activities on one hand and the sources of support from the community on the other (i.e., greater diversity is likely to increase the demands of the community but reduce the availability of resources from that community). This creates a mismatch between the environment and the NPSE as per the tenets of organizational ecology. Additionally, because diversity reduces the unique strengths of NPSEs, namely collective support and social cohesion, the commercial model of NPSEs that relies on community action is likely to fail unless philanthropic resources are obtained from sources outside the community (e.g., government grants, foundation support, corporate finance). Therefore, as per organizational ecology, the selection process in ethnically diverse regions is unlikely to choose NPSEs that rely solely on

locally-generated resources to solve the social issue. Simply stated, NPSEs are likely to face increasing survival challenges as ethnic diversity grows in a region. Hence, I hypothesize:

*Hypothesis 6: Ethnic diversity will negatively influence the density of human services NPSEs.*

**Agglomeration of NPSEs, Resource Dependencies and Financial Performance**

Organizational density or agglomeration has been a subject of considerable interest in management and entrepreneurship literatures (Acs & Varga, 2005; Bell, 2005; Cumming & Johan, 2010; Folta et al., 2006; Freedman & Kosová, 2012; Gilbert et al., 2008; Jonghoon et al., 2011). The principle underlying agglomeration suggests that firms may choose to cluster in a region with similar or complementary industries in order to obtain the benefits of a pooled market of skilled labor, specialized inputs and services, and knowledge resulting out of spillover effects (D. B. Audretsch & Dohse, 2007; Gilbert et al., 2008; Krugman, 1991; Marshall, 1920; Saxenian, 1996). These benefits have been referred to in the literature as *economies of agglomeration* (Arthur, 1990; Folta et al., 2006) and have led several scholars to undertake studies highlighting the positive effects of agglomeration. For example, Pinch, Henry, Jenkins, and Tallman (2003) argue that firms situated in close proximity to each other are able to rapidly disseminate knowledge, which develops learning capabilities and generates cluster-level competitive advantage. Similarly, in their study on the effects of agglomeration in the U.S. biotechnology industry, McCann and Folta (2011) found that the size of agglomeration is associated with firm performance by increasing their probability of patenting. However, there also exist several studies that have highlighted the potential negative effects of agglomeration, especially at very high levels of organizational density in a region (Pouder & John, 1996; Prevezer, 1997). Thus, for example, Miller and Eden (2006) found that high local density of

firms within a host country negatively influences the performance of foreign subsidiaries. Similarly, in a study of the hotel industry in Manhattan, J. A. Baum and Mezias (1992) found that the benefits of agglomeration vanish in densely populated areas as the increasing number of hotels leads to price rise, competition and a high likelihood of failure. In essence, research suggests that agglomeration may provide favorable as well as unfavorable outcomes for firms within a region.

The positive and negative aspects of agglomeration are best captured by the processes of legitimation and competition under organizational ecology (Carroll & Hannan, 1989). Specifically, researchers studying the effects of agglomeration on organizational mortality suggest that during the initial stages, an increasing density of firms in a region provides benefits by way of legitimizing the group of newly formed organizations, which helps in securing valuable resources such as talent, information, and capital. Thus, economies of agglomeration accrue to those firms that take a lead in clustering together in a new region. However, as density keeps growing, the corresponding consumption of resources in the region continues until the region reaches its *carrying capacity* – the maximum number of firms that the region's finite resources can sustain (Aldrich, 1990; Specht, 1993). Beyond this point, the increasing density only increases the competition for scarce resources, which ultimately leads to diseconomies of agglomeration and increasing mortality rates. Thus, agglomeration and organizational mortality have been found to share an inverted U-shaped relationship with each other (Petersen & Koput, 1991).

Turning our attention to the nonprofit literature, it can be argued that performance, rather than mortality, may be a larger concern for NPOs and NPSEs because these organizations serve the society and do not consume the profits that they generate. Therefore, if their social mission is

achieved, the founders/managers of such organizations are less likely to be concerned by dissolution than their commercial counterparts, due to the absence of any self-interest in the organizations' activities. Hence, the effects of agglomeration may be significant for the performance of NPSEs. However, Folta et al. (2006, p. 218) note, "Surprisingly few studies have examined the relationship between cluster size and firm performance, despite its central importance to agglomeration theory." This argument is even more applicable in the case of nonprofit literature. In this study, I examine the financial performance of NPSEs since the ability of NPSEs to survive and achieve their social goals depends critically on their financial performance (Aileen Boluk & Mottiar, 2014; Austin et al., 2006; Foster & Bradach, 2005; Seo, 2011; Weerawardena & Mort, 2006). The financial performance of an NPSE in my study is simply the revenue it generates using its overall funding mix. Particularly, I suggest that the process of NPSE agglomeration and its effect on the NPSEs' financial performance is likely to follow the same trajectory as the inverted U-shaped relationship explained above.

Research on agglomeration has mostly been conducted at the industry level (e.g., D. B. Audretsch & Feldman, 1996; Aziz & Norhashim, 2008; Li & Geng, 2012; Miller & Eden, 2006). This is because firms within an industry have been known to use similar operational processes, utilize similar resources, cater largely to the same customers, and be influenced similarly by the socioeconomic and political environment of the region – all of which describe the commonalities and complementarities that are required to develop interconnections among the agglomerated firms (Aziz & Norhashim, 2008; Porter, 1998, 2001). From the industry perspective, NPSEs operating in the human service sector can also be said to operate in a single industry since they cater to the same type of customers across communities (e.g., poor, unemployed, unhealthy, children, elderly), obtain support from the same pool of resources (e.g., foundation support,

government grants) and utilize similar tactics in their action plan (e.g., recruit volunteers, conduct trade, obtain donations). Therefore, the arguments presented in the literature for industry level agglomeration may also apply to the agglomeration of human service NPSEs.

The first argument is that proximity between firms and complementing entities such as suppliers, service providers, and related institutions in a region creates greater opportunities for interaction, networking and knowledge exchange that are valuable in the early stages of agglomeration (Aziz & Norhashim, 2008; Enright, 1998, 2000; Porter, 1998; Van den Berg, Braun, & Van Winden, 2001). In turn, such interaction and exchange of resources between closely situated organizations strengthens the legitimacy of the industry during its incipient stage and attracts new participants and complementing services, thereby generating economies of agglomeration (Aldrich, 1990; Carroll & Hannan, 1989; Schmitz & Nadvi, 1999). This argument readily applies to NPSEs. For example, governments, foundations, funding agencies, clients and other nonprofit organizations may confer a high degree of legitimacy upon NPSEs' activities because such activities may be pragmatically as well as morally appealing to them (Dart, 2004; Ko, 2012). Consequently, several NPSEs may be an outcome of partnership arrangements between different entities such as government agencies, corporations and NPOs (D. Young, Kerlin, Teasdale, Soh, & Kickul, 2012). Additionally, NPSEs obtain favorable social capital and resources from their local community networks (Bhatt & Altinay, 2013; Haugh, 2007; Moreau & Mertens, 2013). In fact, Sarpong and Davies (2014) find that establishing cross-sector partnerships, engaging the community, and building capacities through collective action are necessary practices for gaining legitimacy and are invariable for social enterprises. This means that a tight coupling may occur between NPSEs and their institutional environment, resulting in a

greater exchange of knowledge and resources between the NPSEs as well as their complementary services, leading to economies of agglomeration for NPSEs.

The second argument made by the agglomeration literature is the need for "supporting institutions" (Feser, 1998; Porter, 1998). Such institutions include key players in a region such as the local government bodies, funding agencies, small businesses, multi-national corporations, universities, consumers, suppliers and other intermediaries (Aziz & Norhashim, 2008; Feser, 1998; Häussler & Zademach, 1996; Porter, 1998). These entities provide the necessary support for agglomeration by creating complementarities that facilitate the exchange of resources and tacit knowledge. Turning to the SE literature, it can be seen that NPSEs also rely on a support network of a variety of institutions and stakeholders (Austin et al., 2006; Dees, 1998a; Katre & Salipante, 2012). For example, Tanimoto and Doi (2007) find that multiple institutions such as technology firms in the Silicon Valley, companies such as Ben & Jerry's and Tully's coffee, university research organizations such as Yale School of Management and Harvard Business School, grant-giving foundations such as Ashoka and Hewllet Foundation, supportive membership organizations such as Social Enterprise Alliance, and other social enterprises such as Greystone Bakery have collectively developed a conducive environment for agglomeration of social enterprises in the San Francisco Bay area (Tanimoto & Doi, 2007).

The above arguments suggest that the initial agglomeration of human services NPSEs in a region is likely to be associated with the availability of a comprehensive support network for the NPSEs' activities, which increases their legitimacy and attracts additional supporters. Significant in this support network are the sources of finance for NPSEs' funding mix such as customers, government bodies, foundations, donors, and corporate entities (Foster & Bradach, 2005; Haugh, 2005; Truong & Sanchez, 2012). As a result, the financial revenues for NPSEs are

likely to see an increase with the increasing support to and acceptance of NPSEs during the early agglomeration. Stated alternatively, the initial increase in NPSE density is likely to generate economies of agglomeration and positively influence the financial performance of NPSEs due to the presence of a strong support network. However, as NPSE density approaches the carrying capacity of the region, the finances available from the sources in their support network are likely to level out, and subsequently step into a decline phase, as explained below.

The environment has finite resources, and an increasing density of organizations without a corresponding and sufficient increase in the resources would create a shortage of resources and ultimately resource dependencies. This phenomenon is readily apparent in the nonprofit sector (Eikenberry & Kluver, 2004; Froelich, 1999; Macedo & Pinho, 2006). In fact, a shortage of traditional resources for NPOs is one of the prime reasons why NPSEs are formed (Hainsworth, 2014; D. R. Young & Salamon, 2002). However, even NPSEs must utilize resources. Therefore, when the density of NPSEs exceeds the carrying capacity of a region, the resulting scarcity of resources tilts the balance to create dependencies that are likely to affect NPSEs' financial performance.

Several factors may contribute to the resource dependencies of NPSEs. First, while commercial firms and NPOs form a part of NPSEs' support network, these organizations may also compete with the NPSEs by way of locating in the same region or conducting business in similar products or services (Dees, 1998a; Moreau & Mertens, 2013). Such competition is particularly likely if the resource needs of NPSEs overlap with those of the other organizations (Baum & Oliver, 1996). Second, the government contracts for social welfare that used to be a prerogative of NPOs are now increasingly extended by the government to commercial firms as well (Ramia & Carney, 2003; Salamon, 1992). Moreover, such contracts are rapidly becoming

scarce (Allen, 2013; Wade, 2000). This means that the support from government may also start deteriorating as density increases. Third, the low ability of disadvantaged regions to generate sufficient resources for NPSEs means that such regions would reach their carrying capacity sooner, rather than later, thereby giving rise to resource dependencies. Subsequently, the regional support network that was available to NPSEs during their nascent years may start weakening simply because of resource-scarcity. This argument is underscored by Garrow (2011) who argues that the likelihood of nonprofit organizations receiving funding from the government is dependent on three aspects, namely environmental resources, relational density and competition. She states, "As relational density of the niche increases past the carrying capacity for government support, competition should become more severe and reduce the ability of organizations in the niche to obtain government funding" (p. 449). Additionally, the lack of business skills and competence in developing market-oriented strategies is likely to put NPSEs at a disadvantage in the competition for deteriorating resources (Lyon & Ramsden, 2006). Research suggests that social enterprises refrain from developing strategic plans, use informal approaches in business, face major difficulties in convincing finance providers such as banks and venture capitalists, price their products and services below market rates, and are unable to hire high-skilled employees due to financial limitations (Austin et al., 2006; M. Bull & Crompton, 2006; Chapman et al., 2007; Cooney, 2013; Hynes, 2009; McBrearty, 2007). All of these factors may lead to financial difficulties for NPSEs, and even more so when they face competition from other NPSEs by way of high density.

Furthermore, commercial activities of NPSEs are often frowned upon by their beneficiaries, and run the risk of eroding the trust of the community (Dees, 1998a; Eikenberry & Kluver, 2004; Foster & Bradach, 2005). Therefore, a high level of NPSE density in a region

(indicating excessive commercialization of social services) may dilute the trust of its residents in the social mission of the NPSEs, thereby diminishing their financial support (e.g., charitable donations). This challenge is further exacerbated by research suggesting that a violation of legitimacy by a single NPSE may create generalized negative perceptions of NPSEs among the community members, thereby damaging the legitimacy of all NPSEs in the region (Ko, 2012). It is easily conceivable that the higher the number of NPSEs in a region, the greater the probability that at least one of them would fail to meet its social obligations. In summary, by exceeding the regional carrying capacity, NPSE density is likely to run the risk of facing stringent constraints on resources as well as a loss of legitimacy and community support – all of which are integral to the NPSEs' financial performance. Therefore, the financial performance (revenues) of NPSEs is likely to eventually start declining as their density continues to increase.

As per organizational ecology, increasing density creates dependence, which in turn generates both positive and negative outcomes (Aldrich, 1990; Lomi, Larsen, & Freeman, 2005; Pe'er & Keil, 2013; Pouder & John, 1996). The positive outcomes include legitimacy, knowledge sharing and increased access to potential employees and suppliers (H. Aldrich, 1999; Pe'er & Keil, 2013), which are likely to be manifested in the initial community support for and legitimization of NPSEs often found in the literature, thereby creating more opportunities for revenue generation. Subsequently the negative outcomes of increasing density include diminishing returns, smaller potential gains, increased competition, and barriers to entry (Aldrich, 1990; Lomi et al., 2005), which are likely to be manifested in lower margins of profit, restraints on growth, and difficulties in maintaining permanent streams of revenue for NPSEs in their later stages, also witnessed in the literature. Therefore, as per the tenets of organizational

ecology and density dependence, agglomeration and financial performance of NPSEs are likely to share a curvilinear (inverted U-shaped) relationship. Hence, I hypothesize:

*Hypothesis 7: NPSE density in a region will have a curvilinear (inverted U-shaped) relationship with the average NPSE revenues of that region.*

Table 3 lists all the hypotheses for my study.

Table 3. Study Hypotheses

| |
|---|
| ***Hypothesis 1:*** *Charitable giving will positively influence the density of human services NPSEs.* |
| ***Hypothesis 2:*** *Government grants will positively influence the density of human services NPSEs.* |
| ***Hypothesis 3:*** *Household income will positively influence the density of human services NPSEs.* |
| ***Hypothesis 4:*** *Poverty rate will negatively influence the density of human services NPSEs.* |
| ***Hypothesis 5:*** *Unemployment rate will negatively influence the density of human services NPSEs.* |
| ***Hypothesis 6:*** *Ethnic diversity will negatively influence the density of human services NPSEs.* |
| ***Hypothesis 7:*** *NPSE density in a region will have a curvilinear (inverted U-shaped) relationship with the average NPSE revenues of that region.* |

## Chapter 3: Methodology and Statistical Analysis

This chapter explains the process I followed to measure and test the variables and relationships in my model. Specifically, it provides the details on study design, chosen sample and steps in data collection, explanation of study variables and their measurement, and the detailed statistical steps in analyzing the relationships hypothesized in the study.

### Study Design

The study had a longitudinal design and used secondary data from the Internal Revenue Service (IRS) Core Files and U.S. Census survey to examine the hypothesized relationships. Longitudinal study designs are appropriate when measuring a change in study variables, either retrospectively or prospectively (Singer & Willett, 2003). Since my study examines the effects of socioeconomic indicators of resources on NPSE density and their financial performance over time, a longitudinal design fitted the requirements aptly and is consistent with other studies in similar settings (e.g., Kil, 2012; Lecy & Van Slyke, 2013). Likewise, the use of secondary data is justified when there is a need to study entire population or large segments of the population, and when comprehensive information is to be obtained on a broad range of variables (Vartanian, 2010). The nature of my study's variables (e.g., unemployment rate and ethnic diversity) entailed an examination of comparatively large segments of population and changes in a broad range of variables. Additionally, the use of secondary data has been common among scholars examining the effects of contextual factors on the location choice and density of organizations (Chang et al., 2008; Desa & Basu, 2013; Jonghoon et al., 2011; S. Miller & Eden, 2006). Therefore, the chosen study design and data-type seemed appropriate for my proposed model.

## Sample

For the purposes of this study, macroeconomic and organizational data were aggregated at the regional level. The study focused on U.S. counties and therefore the *regions* as described in the hypotheses refer to counties. County-level data were considered appropriate for this study because they provide the required specificity and substantiality of information on the social, economic and demographic factors to be examined. Given the nature of the variables in my study, selecting a higher level (i.e., state-level) data was likely to create a small sample size and reduce the rigor of analysis, whereas a lower level (i.e., zip-code-level) data was likely to create problems in data collection and measurement (e.g., measuring population per zip-code). Additionally, social welfare in certain states such as Indiana and California has been conventionally organized at the county level (Grønbjerg & Paarlberg, 2001). Hence, county-level data seemed appropriate since they have been used previously in studies of similar nature (Bielefeld, 2000; Grønbjerg & Paarlberg, 2001; Van Slyke & Brooks, 2005).

Specifically, the data on socioeconomic factors was obtained for 3144 U.S. counties and county-equivalents. The data on NPSE density, and NPSE financial performance (dependent variable) was purchased from the National Center for Charitable Statistics. The data was obtained for organizations classified as NPSEs and then aggregated at the county level. For example, if a county had 100 registered nonprofit organizations and only 30 of those organizations fulfilled the criteria (described later) to be classified as an NPSE, the county-level density of NPSEs was coded as 30. Thus, all the variables in the final data set were aggregated at the county-level. I provide more details on the measurement and coding of variables in the later sections.

The first step in analyzing my proposed model was to identify the sample of NPSEs to be studied. Identifying and examining social enterprises has been a very difficult endeavor in the literature primarily because of the lack of a concise and specific definition of social enterprise (Abu-Saifan, 2012; Bull, 2008; Dart, Clow, & Armstrong, 2010; Dees, 1998a). However, since I sample from a nonprofit organizational population in my study, the conceptualization of NPSEs becomes comparatively easier since the literature provides two clear conditions to define NPSEs – 1) they must have exclusive social goals, and 2) they must generate earned income in addition to charitable income (Abu-Saifan, 2012; Austin et al., 2006; Boschee & McClurg, 2003; Dart, 2004; Goerke, 2003; Haugh, 2007; Lasprogata & Cotten, 2003; Robinson, 2006). Therefore, for identifying the NPSE sample for my study, I used the definition provided earlier in the dissertation - they are nonprofit organizations that work primarily towards the betterment of disadvantaged individuals, communities and/or society, and are able to generate revenues from traditional sources of nonprofit funding as well as trading or commercial exchange (Boschee & McClurg, 2003; Haugh, 2007). Based on this characterization, the NPSEs included in my study were those organizations that fulfilled *each* of the following three requirements:

1) Registered as either a 501c (3) or 501c (4) organization (i.e., non-profit entity)

2) Operating in human services area (i.e., exclusive social goals for community benefit)

3) Generating earned income besides obtaining philanthropic support (i.e., dual goals)

Thus, the NPSE sample for my study were those 501c(3) and 501c(4) organizations registered in the human services category of IRS's National Taxonomy of Exempt Entity (NTEE) code-list that possessed sources of earned income. The primary reason for selecting this sample was that it perfectly met the criteria of NPSEs described in this study.

***501(c)(3) organizations***

The IRS provides a classification for registering nonprofit organizations. Under section 501(c)(3) of the Internal Revenue Code (IRC), the federal tax law provides exempt status to certain nonprofit organizations. These organizations are exempt from federal income tax and are eligible to receive tax-deductible charitable contributions. The three most common types of 501(c)(3) organizations are charitable, educational and religious.

In order to be registered under section 501(c)(3), an organization must have one of the exempt purposes described under section 501(c)(3), must refrain from participating in political campaigns, must restrict its lobbying activities, must not use its earnings for the benefit of any private individual or shareholder, and must not have business as its primary purpose (but may have it as a related activity to support its core purpose) (IRS, 2014). The list of exempt purposes includes many purposes such as advancement of religion, reduction of neighborhood tensions, and relief of the underprivileged populations. Since my study focused exclusively on human services nonprofits, I used the activities listed under the NTEE code list to identify the functional areas of 501(c)(3) organizations. The NTEE code list is a helpful tool because it categorizes nonprofit organizations into 10 major categories based on their core purpose, with human services being an important category. More information on the NTEE code list is provided later in this chapter.

***501(c)(4) organizations***

Under section 501(c)(4) of the IRC, the IRS makes another provision for formation of organizations that operate exclusively for conducting social welfare. Accordingly, those organizations that are "primarily engaged in promoting in some way the common good and general welfare of the community" [Reg. 1. 501(c)(4)-1(a)(2)(i)] (Reilly, Hull, & Allen, 2003, p.

3) are allowed to register as social welfare organizations under section 501(c)(4). The 501(c)(4) section allows these organizations exemption from paying federal tax. However, the contributions made to these organizations are not tax deductible. Primarily, a 501(c)(4) social welfare organization must work for the general benefit of people at large or community as a whole, without promoting the benefits of a private group of individuals (Reilly et al., 2003). It may enter into lobbying activities for political purposes, but cannot have business as its primary activity. However, it may still conduct business as a supplementary activity to accomplish its primary purpose of social welfare (Reilly et al., 2003).

Given their ability to use trade as a supporting activity to fulfill their social missions and their primary focus on social advancement, it is discernable how certain types of 501(c)(3) and 501(c)(4) organizations in the human services category of NTEE code list may be classified as social enterprises.

***NTEE Code List***

The National Taxonomy of Exempt Entities (NTEE) is a classification system of tax-exempt organizations developed by scholars and practitioners at the National Center for Charitable Statistics (NCCS) in the 1980s to simplify the complex categorization of nonprofit entities by the IRS (L. Lampkin, Romeo, & Finnin, 2001; Sumariwalla, 1986). It is one of the few reliable sources of nonprofit data in the U.S. (Bielefeld, 2000). The NTEE code list categorizes nonprofits into 10 major categories, 26 major groups, and 450 different sub-categories. The major advantage of using the NTEE code list for my study was that it provides a strong basis to identify human services NPSEs, since human services is a distinct category under its code list. Additionally, the NTEE is a comparatively richer and far more comprehensive system of classification that categorizes nonprofits into more groups than other similar systems,

thereby providing more granularity and accuracy in identifying the purpose of a nonprofit organization (Salamon & Anheier, 1992). Finally, despite some of its drawbacks (described later in the limitations section), it remains one of the most widely used and nationally recognized nonprofit classification systems in the literature (Child & Grønbjerg, 2007; MacIndoe & Whalen, 2013).

Table 4 lists the 10 major categories of nonprofits under the NTEE. The major category for human services is represented as 'V'. The human services sub-sector is the largest category of the nonprofit sector, representing 35.5% of all public charities in the United States (McKeever & Pettijohn, 2014). This category includes organizations operating to fulfill critical needs of individuals in areas such as employment, crime prevention, housing/shelter, child and elderly care, disability care, and rehabilitation, among others (Boris, 2010; Norris-Tirrell, 2014). Additionally, human services organizations receive funding from a variety of sources including private contributions, program service revenues, grants, and other avenues of earned income (Lecy & Van Slyke, 2013; Salamon, 2012). Lately, these organizations have also been experiencing several challenges in accomplishing their social and economic objectives, thereby requiring them to develop innovative ways to balance these dual goals (Norris-Tirrell, 2014). Therefore, the human services sector provides a timely opportunity to examine the organizations classified as NPSEs in my study. It is also worth noting here that although the major category VII in Table 4 is named 'Public/Societal Benefit', it is not relevant for my study since the scope of organizational activity under this category is broad and generic; for example, forming associations, providing financial support, protecting civil rights, and conducting research in various disciplines (NCCS, 2007). In other words, organizations under this category do not directly participate in allaying social issues of a more immediate and short-term nature (e.g.,

driving under the influence or domestic violence) and therefore, are not categorized as human services organizations for examination.

Table 4. NTEE Major Categories [adapted from NCCS (2007)]

| **Organizational Purpose** | **NTEE Category** |
|---|---|
| Arts, Culture, and Humanities | I |
| Education | II |
| Environment and Animals | III |
| Health | IV |
| Human Services | V |
| International | VI |
| Public, Societal Benefit | VII |
| Religion Related | VIII |
| Mutual/Membership Benefit | IX |
| Unknown | X |

Within the 10 major categories listed by the NTEE, alphabetical codes have been assigned to groups under each category in order to identify the core purposes of nonprofit organizations. Table 5 provides a list of 26 major groups within the 10 categories. For my study, the primary group under examination was group code 'P' under the human services category (major category V). This code includes organizations that are formed to provide services to specific groups such as elderly, children, immigrants, disabled, aging, homeless, blind or deaf (NCCS, 2007). Additionally, while the group P includes the primary human services, organizations under certain other codes also fall under the purview of human services such as code J for job training and rehabilitation of unemployed populations and code L for housing needs of low-income and disabled populations (Grønbjerg, 2001; NCCS, 2007). Therefore, within the major category 'V', I focused on services dealing with critical human needs namely, crime and legal issues, employment, food and nutrition, housing and shelter, public safety, sports and recreation, youth development, and other human services. I only included codes where the organizations listed provide social services directly versus providing support services such as technical or management assistance, funding support, and research support (Kil, 2012). Table 6 provides the list of codes relevant to my study. I used each of these codes in the initial data collection.

Table 5. NTEE Group Codes for Major Categories [adapted from NCCS (2007)]

| NTEE Major Category | Group Code (Sub-category) |
|---|---|
| Arts, Culture, and Humanities (I) | A – arts, culture and humanities |
| Education (II) | B – education |
| Environment and Animals (III) | C – environmental quality, protection<br>D – animal-related |
| Health (IV) | E – health care<br>F – mental health and crisis intervention<br>G – diseases, disorders & medical disciplines<br>H – medical research |
| **Human Services (V)** | I – crime & legal-related<br>J – employment<br>K – food, agriculture & nutrition<br>L – housing & shelter<br>M – public safety, disaster relief<br>N – recreation & sports<br>O – youth development<br>**P – human services** |
| International (VI) | Q – international, foreign affairs |
| Public, Societal Benefit (VII) | R – civil rights, social action & advocacy<br>S – community capacity building<br>T – philanthropy, voluntarism, grant-making<br>U – science and technology<br>V – social science<br>W – public/societal benefit |
| Religion Related (VIII) | X – religion-related |
| Mutual/Membership Benefit (IX) | Y – mutual and membership benefit |
| Unknown (X) | Z – unknown |

Table 6. NTEE Human Services Code List for NPSE Sampling

| |
|---|
| I-20: Crime Prevention<br>I-21: Youth Violence Prevention<br>I-23: Drunk Driving-Related<br>I-30: Correctional Facilities<br>I-31: Half-Way House for Offenders & Ex-Offenders<br>I-40: Rehabilitation Services for Offenders<br>I-43: Inmate Support<br>I-44: Prison Alternatives<br>I-50: Administration of Justice, Courts<br>I-51: Dispute resolution, Mediation services<br>I-60: Law enforcement agencies<br>I-70: Protection against and prevention of neglect, abuse, exploitation<br>I-71: Spouse Abuse Prevention<br>I-72: Child Abuse Prevention<br>I-73: Sexual Abuse Prevention<br>I-80: Legal services<br>I-83: Public interest law, Litigation<br>I-99: Crime, legal related |
| J-20: Employment procurement assistance, Job training<br>J-21: Vocational Counseling<br>J-22: Job Training<br>J-30: Vocational rehabilitation<br>J-32: Goodwill industries<br>J-33: Sheltered Employment<br>J-40: Labor unions, organizations<br>J-99: Employment, job-related |
| K-20: Agricultural programs<br>K-25: Farmland preservation<br>K-26: Livestock breeding, development, management<br>K-28: Farm bureau, Grange<br>K-30: Food service, free food distribution programs<br>K-31: Food banks, food pantries<br>K-34: Congregate meals<br>K-35: Eatery, agency, organization sponsored<br>K-36: Meals on wheels<br>K-40: Nutrition programs<br>K-50: Home economics<br>K-99: Food, agriculture and nutrition |
| L-20: Housing development, construction, management<br>L-21: Low Income and Subsidized Rental Housing (renamed Public Housing)<br>L-22: Senior Citizens' Housing<br>L-24: Independent Housing for People with Disabilities<br>L-25: Housing Rehabilitation<br>L-30: Housing search assistance<br>L-40: Low-cost temporary housing<br>L-41: Homeless Shelters<br>L-50: Housing owners, renter's organizations<br>L-80: Other housing support services<br>L-81: Home Improvement & Repairs<br>L-82: Housing Expense Reduction Support<br>L-99: Housing shelter |
| M-20: Disaster preparedness and relief services<br>M-23: Search and rescue squads, services<br>M-24: Fire prevention, Protection, Control<br>M-40: Safety education<br>M-41: First Aid<br>M-42: Automotive Safety<br>M-99: Public safety, disaster preparedness and relief |

N-20: Recreational and sporting camps
N-30: Physical fitness and community recreational facilities
N-31: Community recreational centers
N-32: Parks and playgrounds
N-40: Sports training facilities, agencies
N-50: Recreational and social clubs, leagues
N-52: Fairs, county and others
N-60: Amateur sports clubs, leagues
N-61 to N-70: Clubs and Leagues for various sports
N-80: Professional athletic leagues
N-99: Recreation, sports, athletics

O-20: Youth centers, multipurpose
O-21 to O-23: Boys clubs, Girls clubs, Boys & Girls clubs
O-30: Adult, child matching programs
O-31: Big brothers, Big sisters
O-40: Scouting organizations
O-41: Boy scouts of America
O-42: Girl scouts of the U.S.A.
O-43: Camp fire
O-50: Other youth development programs
O-51: Youth community service clubs
O-52 to O-55: Youth Development (Agricultural, Business, Citizenship Programs, Religious Leadership)
O-99: Youth Development

P-20: Multipurpose human services organizations
P-21: American Red Cross
P-22: Urban League
P-24: Salvation Army
P-26: Volunteers of America
P-27: YMCA, YWCA, YWHA, YMHA
P-28: Neighborhood centers, Settlement houses
P-29: Thrift Shops
P-30: Children's, Youth Services
P-31: Adoption
P-32: Foster Care
P-33: Child Day Care
P-40: Family Services
P-42: Single Parent Agencies
P-43: Family Violence Shelters
P-44: In-Home Assistance
P-45: Family Services for Adolescent Parents
P-46: Family Counseling
P-50: Personal Social Services
P-51: Financial Counseling, Money Management
P-52: Transportation, Free or Subsidized
P-58: Gift distribution
P-60: Emergency Assistance (Food, Clothing, Cash)
P-61: Traveler's Aid
P-62: Victim's Services
P-70: Residential, Custodial Care
P-72: Halfway House (Short-term Residential Care)
P-73: Group Homes
P-74: Hospices
P-75: Supportive Housing for Older People
P-80:
P-81: Senior Centers
P-82: Developmentally Disabled Centers
P-83: Women's Centers
P-84: Ethnic & Immigrant Centers
P-85: Homeless Centers
P-86 & P-87: Blind & Visually Impaired, and Deaf & Hearing Impaired Centers
P-99: Multipurpose and other human services

## Data Source

The data for the study was obtained from the core files maintained by the National Center for Charitable Statistics (NCCS) and the publicly available U.S. census survey data. The NCCS core files have been the primary source of information used by scholars examining the geographical aspects of the U.S. nonprofit sector (McDougle, 2015). As a pioneer in developing the comprehensive NTEE classification system, the NCCS has maintained core business files of nonprofit organizations registered with the IRS. These core files contain Form 990 – the tax return form filed by organizations exempt from income tax. Although class 501(c) organizations are exempt from income tax, they are still required to file a return with the IRS as long as their yearly gross receipts exceed $25000. The objective is to make these organizations disclose their financial and other activity to the stakeholders and thereby become more transparent. Thus, the information on form 990 is available to general public for evaluation. This information provides valuable insights into the nonprofit organization's structure, revenues, governance, and expenses; resulting in form 990 often being considered "the best source of data for researchers" (L. M. Lampkin & Boris, 2002, p. 1675). The IRS Business Master File and the accompanying form 990 has been a valuable data source for several scholars of nonprofit literature. It has been used to examine organizational density and expenditure (Kil, 2012), availability of government funding (Lecy & Van Slyke, 2013), donor support (Thornton & Belski, 2010), organizational founding (Saxton & Benson, 2005) financial vulnerability (Greenlee & Trussel, 2000) governance mechanisms (Yetman & Yetman, 2012), administrative efficiency (Frumkin & Kim, 2001) as well as lobbying activities (Suárez & Hwang, 2008) of nonprofit organizations. For the present study, I used it to obtain data on NPSE density, NPSE asset base (control), charitable giving per county, and NPSE revenues per county.

Data on the socioeconomic indicators in my study was obtained using the American Community Survey (ACS) conducted by the U.S. census bureau and the Bureau of Labor Statistics (BLS). County-level data from the U.S. census survey is available through the American FactFinder website (http://www.factfinder.census.gov) maintained by the U.S. department of commerce as well as the records maintained at the NCCS website (http://www.nccsweb.urban.org). As a part of the larger U.S. census survey, the ACS provides 1-year, 3-year and 5-year county-level data estimates on a variety of socioeconomic and demographic variables such as income, education, ethnic diversity, and employment levels in the U.S. This data has considerable benefits for macroeconomic studies and has been used in previous research similar to the present study (e.g., Saxton & Benson, 2005; Peck, 2008; Kil, 2012). For my study, I used the county-level data estimates available from the census and the data from the BLS website to analyze the socioeconomic indicators in my model namely, the independent variables of household income, poverty rate, unemployment rate, ethnic diversity and government spending, as well as the control variables of county-level population and business establishments.

## Data Collection

The overarching framework for my study was to measure the hypothesized effects of independent variables measured at time 1 on the dependent variables measured at time 2 and time 3. Therefore, I collected the data for each socioeconomic indicator in my model at time 1 (2009), the data on NPSE density at time 2 (2011) and the data on NPSE financial performance at time 3 (2013). Table 7 provides a synopsis of the data collection time points for the variables in my model.

Table 7. Data collection years and variables

| **2009** (Time 1) | **2011** (Time 2) | **2013** (Time 3) |
|---|---|---|
| Charitable Giving Rate<br>Government Spending<br>Household Income<br>Unemployment Rate<br>Poverty Rate<br>Ethnic Diversity | Number of NPSEs per County | NPSE Financial Performance |

I chose 2013 to measure the variable of NPSE financial performance as it is currently the most recent and complete data available on Form 990 through the NCCS Core files. The year 2009 was considered appropriate for measuring the socioeconomic factors because several of these factors started regaining their consistency by the end of 2009 after being temporarily affected by the economic recession in 2008 (Roeger, Blackwood & Pettijohn, 2012). For example, total charitable giving in the U.S. went down 3.6% in 2008-09 but went back up 2% in 2009-10 and has been on a consistent increase since then (Roeger, Blackwood & Pettijohn, 2011; Wing, Roger & Pollack, 2010; Pettijohn, 2013; McKeever & Pettijohn, 2014; McKeever, 2015). Hence, examining the 2009-2013 period ensured that my study did not encounter any anomalies that disrupt the historical patterns of the socioeconomic factors. Additionally, a 5-year time period has been used in prior research to measure the effects of social factors on organizational performance, and several studies of new ventures and organizational density have also considered a 5-year time-frame an appropriate duration for studying the variations in growth, size and performance of ventures (e.g., Batjargal, B., 2003; Davidsson & Delmar, 2006; Lecocq, Leten, Kusters, & Van Looy, 2012; Sine, Mitsuhashi, & Kirsch, 2006). Similarly, the U.S. Census Bureau conducts economic census every five years (NCCS, 2007), so the census data available for the 2009-2013 period perfectly matched the data from the Core files for the same period. Finally, the decision on the duration was also influenced by certain operational restrictions in collecting data prior to 2009. Specifically, the IRS revised its Form 990 starting 2009 and the information on the new form is not comparable to that on the old form as some fields were removed or redefined for the new form, creating difficulties in obtaining data from the Core files of 2008 and earlier. Hence, 2009-2013 was determined to be the most appropriate timeline for analysis.

Prior to commencing data extraction, I conducted an a-priori analysis of the required sample size in order to ensure that the final sample of counties containing NPSEs would be substantial enough to support the statistical analysis. Using the online tool available from Soper (2011), I used the measure of Cohen's d to determine the effect size in my analysis since it is one of the most widely used measures of effect size (Aguinis, Beaty, Boik, & Pierce, 2005). The benchmarks suggested by Cohen for small, medium and large effect sizes are 0.1, 0.3 and 0.5 respectively. The analysis for a simple two-tailed test using Soper (2011) returned minimum required sample sizes of 1102, 154 and 70 for small, medium and large effect sizes respectively (0.95 statistical power; 0.05 p-value).

Next, I searched the NCCS database to find out the number of counties with zero human services nonprofits filing Form 990. There were 62 such counties as of Dec. 2013. Thus, 3082 counties had at least one human service nonprofit for which Form 990 was available. The largest number of organizations in a single county was 4022 (in Los Angeles County, CA).

Finally, to estimate my final sample of NPSEs, I conducted a Form 990 examination for the year 2013 for all human services organizations in 10 randomly selected counties out of 3082 counties. I used an online randomization tool (http://www.miniwebtool.com/random-picker/) to sample the 10 counties. Upon examining the commercial income on form 990 of all organizations, 9 out of 10 counties were found to have at least 2 and a maximum of 373 NPSEs. Based on this estimate, 90%, or approximately 2774 counties in my final sample were expected to have NPSEs, which was considerably higher than the minimum required 1102. This estimate, combined with the evidence that commercial revenues make up the largest component (roughly 50%) of funding mix for human services nonprofits (McKeever & Pettijohn, 2014; Gronbjerg,

2001; Salamon, 1999) added further confidence to the likelihood of identifying a sufficient number of NPSEs and ensuring adequate sample size for my study.

The data collection commenced by first obtaining the 2011 core file (form 990 information) for all 501(c)(3) and 301(c)(4) organizations from the NCCS repository. This data were further filtered by the human services organizations under the NTEE codes listed in Table 6 and then further filtered to those organizations whose latest form 990 indicated earned sources of revenue. The information on earned income is available from lines 7a, 7b, and 9 on Part I of the Form 990, which is organized in a column format in the NCCS data file. Specifically, the column providing information on an organization's program service revenue (i.e., fees charged in return for services or contracts) was used as the measure of earned income, since service and contract fees are the most common form of earned income for nonprofits (Berman, Brooks & Murphy, 2006; Blackwood, Wing & Pollack, 2008). Hence, the value in this column was considered the final criterion in identifying the organization as an NPSE. Lastly, all the NPSEs in the filtered data file were aggregated at the county-level. The final sample resulted in 2780 counties, which was much greater than the minimum required sample of 1102 as per the a-priori analysis.

In the next step, I collected data for the predictor variables of socioeconomic factors, the dependent variable of average NPSE revenues per county and the four control variables in my model. A description of data collection for each of these variables follows.

## Study Variables

*Charitable Giving Per County (2008).* County-level charitable giving was measured by using the data available from NCCS. The NCCS organizes data on average charitable giving by county as reported on the individual IRS tax return Form 1040 Schedule A by households that itemize deductions. Currently, this source is the only comprehensive county-level data on

charitable giving available publicly. Using the information from the individual tax forms filed with the IRS, the records of household charitable giving in the U.S. have been made publicly available by NCCS. However, the data on charitable giving is not available for the years 2009 or 2010, and the year closest to 2009 for which the data is made available is 2008. The unavailability of 2009 data created certain restrictions for my study and the only solution available was to use the data on charitable giving from the closest year available (i.e., 2008). This data contains dollar amount on charitable giving for each county computed from the itemized deductions on the individual tax returns filed by the residents of that county. Accordingly, I obtained the charitable giving amount for 2008 for the 2780 counties in my final sample. The minimum dollar value of charitable giving was 18,000 for Todd county in South Dakota and the maximum was 5,305,042,000 for Los Angeles county in California. The average for all 2780 counties was $55,602,000. Upon examining the descriptive statistics, charitable giving was found to have positive skewness and kurtosis values that extended beyond the acceptable range. Hence, I obtained log transformed values (X to log base 10 of X) to address this issue and used them in the analysis. Logarithm transformation is one of the popular and useful transformations and is appropriate for measured variables when the data is skewed to the right and the variables do not contain zero or negative values (Bland & Altman, 1996; Emerson & Stoto, 1983). Since charitable giving, along with two other variables in my dataset displayed these characteristics, a logarithm transformation was considered appropriate for addressing the departures from normality. The transformation reduced the skewness statistic from 12.23 to 0.164 and the kurtosis statistic from 230.6 to 0.261 for charitable giving.

*Government Spending Per County (2009).* Government spending at the county-level was measured using the data on federal funding obtained from www.usaspending.gov – a U.S.

government website operated by the Department of Treasury's Bureau of Fiscal Service. Under the Federal Funding Accountability and Transparency Act of 2006, this website provides data on the recipients of federal grants and contracts in all U.S. counties along with the details of the agencies providing the funding. For the purpose of my study, funding from all agencies was included while collecting the data. The website provides data on the *number* of grants and contracts as well as the total *dollar amount* of funding per county. I obtained the data on the number of grants/contracts issued in 2009 for the 2780 counties in my sample. I used the number of transactions instead of the dollar amount because my study examines the effects of *availability* of government support rather than the intensity of government support. The minimum number of funding transactions occurred for Grant county in Nebraska (32) whereas the maximum occurred for Los Angeles county in California (133,568). The average for the 2780 counties was 1914 transactions. Upon examining the descriptive statistics, government spending was found to have positive skewness and kurtosis values. Hence, I obtained the log values to address this issue and used them in the analysis. The transformation reduced the skewness statistic from 10.05 to 1.08 and the kurtosis statistic from 133.4 to 0.861 for government spending, thereby making the variable appropriate for analysis.

*Household Income Per County (2009).* Information on household income was obtained using the data from the American Community Survey (ACS) carried out by the U.S. Census Bureau. Using the data search tool available at the American Fact Finder website maintained by the U.S. Department of Commerce (http://www.factfinder.census.gov), I obtained data from ACS on the median household income for the 2780 counties in my sample. A median value was considered more appropriate than an average in measuring household income because probability distributions of income do not follow a normal curve and have historically found to

be highly skewed (e.g., DeNavas-Walt, Proctor & Smith, 2009). Moreover, a mid-point provides a more realistic picture of income, making the median a standard measure of household income in most studies (e.g., McNeil, 1998; DeNavas-Walt, 2010; Kennedy, Kawachi & Prothrow-Stith, 1996). The lowest median household income for 2009 was $18,860 for Buffalo county in South Dakota whereas the highest was $114,200 for Loudoun county in Virginia. I used log transformed values of household income in my analysis because household income varies with the number of people in the household, and thereby median values of this variable may be more skewed towards larger households.

*Poverty Rate Per County (2009).* Poverty rate was measured using the data from the American Community Survey (ACS). Using the data search tool available at the American Fact Finder website (http://www.factfinder.census.gov), I obtained the percentage values for county-level poverty rates for 2009. This data contained the percentage of population in poverty in each county as determined by the Census Bureau's poverty thresholds for 2009 (available at www.census.gov). The percentage values provided a more accurate account of poverty because they inherently control for the variation in population among counties. For 2009, the county of Los Alamos in New Mexico had the lowest poverty rate of 3.1% whereas Ziebach county in South Dakota had the highest poverty rate of almost 62% in my sample of 2780 counties. The average 2009 poverty rate for the counties in my sample was 15.36%.

*Unemployment Rate Per County (2009).* Information on unemployment rate was obtained using the data from the Bureau of Labor Statistics (BLS). The 2009 file of Local Area Unemployment Statistics (LAUS) at BLS provides data on the 12-month average unemployment rate based on the number of individuals employed versus unemployed in the labor force for each county. Therefore, using the data search tool available at the BLS website

(http://www.bls.gov/data/#unemployment), I obtained the percentage values for unemployment in 2009 for each of the 2780 counties in my sample. I used the percentage values of unemployment rather than the actual number of unemployed individuals because doing so automatically controls for the variation in population among counties. The lowest level of unemployment was recorded as 1.6% for Sublette county in Wyoming whereas the highest was 22.6% for Imperial county in California. The average 2009 poverty rate for the counties in my sample was 5.87%.

*Ethnic Diversity Per County (Percentage of Minorities in 2009).* Conceptually, an ethnically diverse population is the one that contains a comparatively greater proportion of minority vis-à-vis the majority racial group. For example, a population with 95% White and 5% Black/other racial groups is less likely to be considered ethnically diverse than a population with roughly the same populations of White, Black and other racial groups. Therefore, for the purpose of my study, I measured the racial/ethnic diversity of a county as a percentage of minority population vis-à-vis the majority population in 2009. Data on ethnic diversity is publicly available from the American Community Survey (ACS). Using the data search tool available at the American Fact Finder website (http://www.factfinder.census.gov), I obtained data from the ACS on ethnic diversity at the county-level.

The U.S. Census Bureau assigns a numerical code to each officially identified race for the purpose of estimating its population. It must be noted here that Hispanic is not considered a race by the Bureau. The Intercensal Estimates report of the U.S. Census Bureau states that Hispanics may be of any race (please refer http://www.census.gov/popest/data/intercensal/county/county2010.html) and therefore the

Hispanic population is already included in the count for all other races. The list of numerical codes assigned to the races by the Bureau is provided in Table 8.

Table 8. Coding of race by the U.S. Census Bureau

| Race | Code assigned by the U.S. Census Bureau |
|---|---|
| All Races Combined | 0 |
| White alone | 1 |
| Black or African American alone | 2 |
| American Indian and Alaskan Native alone | 3 |
| Asian alone | 4 |
| Native Hawaiian and Other Pacific Islander alone | 5 |
| Two or more races | 6 |

I commenced the measurement of this variable by downloading the data file of 2009 population estimates for all racial groups at the county level. This data provides a numerical value for the number of individuals in each race in a given county in 2009. Using these values, I calculated the percentage values of each race for each of the counties in my sample of 2780. For example, if a county had 400 Asians among the total population of 20,000, then a percentage value of 2% was assigned to the Asian population in that county for 2009. The resulting data file provided percentage values for all races in each county, which was then used to identify the largest racial group. Subsequently, the percentages for all other groups (i.e., minorities) were added together to calculate the total minority population vis-à-vis the majority population. For instance, if a county had 42% Whites, 26% Blacks, 18% Asians, 10% American Indians, 3% Native Hawaiians and 1% mixed races, then the total minorities percentage was calculated as the total of all races except the majority (i.e., 58%). In this case, a value of 58% would indicate that the county has considerable racial diversity in its population.

For the counties in my sample, the lowest amount of racial diversity in 2009 was found for Starr county in Texas (0.72%) whereas the highest was recorded for Kauai county in Hawaii (66.03%). The 2009 average for racial diversity in my sample was 12.75%.

*NPSE Density Per County (2011).* County-level NPSE density was measured as the number of NPSEs in a given county in 2011. As explained in the earlier section on data collection, the data to identify NPSEs was obtained from the Core files maintained at NCCS. Specifically, using the data from NCCS, I first obtained the list of all Human Service 501(c)(3) and 501(c)(4) organizations falling under the NTEE codes listed in table 6. In the next step, I selected those organizations that possessed sources of earned income as reported under program service revenue on their form 990. Finally, I aggregated these NPSEs among all U.S. counties

based on their location details provided in the data file. This resulted in a final sample of 2780 counties possessing NPSEs. The lowest number of NPSEs in a county was 1 and the highest was 2006. The average number of NPSEs per county in my sample was approximately 34.

*NPSE Financial Performance (Average NPSE income per county in 2013).* NPSE's county-level financial performance was measured as the average income of all NPSEs in a given county for 2013. For example, if a county had 15 NPSEs whose combined income for 2013 was $300,000, the NPSE financial performance for that county was calculated to be $20,000. In the first step, I downloaded the 2013 Core file for 501c(3) and 501c(4) organizations from NCCS. Next, I filtered the data by Human Services category and further by the NTEE codes provided in Table 6. In the next step, I filtered the organizations by their program service revenues and aggregated them at the county-level to obtain the number of NPSEs in each county for 2013. Finally, for each county, I added the total incomes of all its NPSEs and divided it by the number of NPSEs to obtain the average income for that county. The Core file provides data on the total yearly income for all 501c(3) and 501c(4) organizations, which I used to arrive at the average value for the counties in my sample. The highest average NPSE income for 2013 was $80,973,743 in Northwest Arctic Borough county, Alaska whereas the lowest was $1560 in Nowata county, Oklahoma.

### *Control Variables*

In addition to collecting data on the primary constructs in my study, I also obtained data on a number of variables used as controls in testing the study's hypotheses. Control variables assist in ruling out alternative explanations of the results of hypotheses tests and reducing error terms while increasing the statistical power of the study (Bubnicki, 2005; Schmitt, Klimoski, Ferris, & Rowland, 1991). Accordingly, the following variables were used as controls in my

study: County population, the size of NPSEs per county, the number of business establishments per county, and the number of NPOs per county. The data on control variables was obtained for 2008 and 2011. The year 2008 (instead of 2009) was used as a control for the effects of six socioeconomic factors on density because testing the effects of charitable giving required using control values from 2008 (since the data on charitable giving was not available for 2009). Therefore, using the year 2008 for controls ensured that all six variables were covered. Moreover, controls from the year preceding the data-year of predictor variables have been used in research on organizational density (e.g., Swaminathan, 1996) and is an acceptable practice in longitudinal research (e.g., Ahuja & Lampert, 2001).

*County Population (2008, 2011).* Research suggests that there is a strong positive correlation between regional level population and nonprofit density (Grønbjerg & Paarlberg, 2001). Therefore, any study of organizational density in a region cannot afford to ignore the population dynamics of that region. For my study, the county-level data on NPSE was expected to vary with county-level population. Therefore, controlling for population was necessary in order to remove any potential effects of variation in county population on NPSE density. I used the log values of county population in my analysis to avoid data skewness and kurtosis issues. The data was obtained from the U.S. Census Bureau that provides yearly estimates of population.

*NPSE Size Per County (2008, 2011).* The size of NPSE is an important factor that may influence the results of the hypothesized relationships. For example, an NPSE with several chapters, branches or affiliates may establish a more significant presence in a county or an NPSE with a large size of operations may receive a comparatively larger share of grants and contracts. Additionally, a county with just a single, large NPSE may earn higher 'average' revenue than a county with multiple, small-sized NPSEs. Therefore, controlling for NPSE size was important in

order to remove its potential effects in the model. I used the information on NPSE's total assets provided on form 990 (line 16, Part X) as a proxy for the NPSE's size. The NCCS Core files provided data on NPSE's total assets at the end of the year. Total assets was considered an appropriate proxy for NPSE size because this amount includes information on the NPSE's cash and loans receivable, inventories, investments, and tangible and intangible assets including the value of land, buildings and equipment. Hence, in absence of specific details on the scope of NPSE's activities, the total assets amount represented the best possible evaluation of the size of NPSE's operations. Thus, the NPSE size in each of the 2780 counties in my sample was obtained using the data on NPSE assets obtained from the Core files for 2008 and 2011.

*Number of Business Establishments Per County (2008, 2011).* Social enterprises may adopt a nonprofit as well as a for-profit structure. Since I did not examine for-profit social enterprises in this study, their effects had to be controlled for in order to prevent the dilution of study results. Moreover, as explained earlier in the dissertation, NPSEs may compete with traditional businesses for customer attention as well as certain contracts from the government. Therefore, in order to ensure that county-level businesses did not indirectly contribute to the financial performance of NPSEs in my study, it was necessary to use them as a control variable. Accordingly, I obtained data on the county business patterns for 2008 and 2011 from the U.S. Census survey website. This data provides information on the total number of business establishments in each county along with a classification as per the category of business. For the purpose of my study, I needed to control for all types of businesses since they may affect my predictor variables of poverty and unemployment in a county. Hence, I used the total number of business establishments in each of the 2780 counties in my sample for 2008 and 2011.

*Number of other NPOs Per County (2008, 2011).* Lastly, other NPOs in a county may also consume their share of government grants, charitable contributions and household income; thereby influencing the effects of these variables on NPSE density in my model. I examined only one of the ten categories of 501(c) organizations (i.e., human services) in my study; therefore, the presence of NPOs from the other categories in a county may indirectly contribute to the financial performance of human services NPSEs in my sample. Hence, controlling for the effects of other NPOs in a county was necessary. To do so, I first obtained the county-level data (from the Core files) on all registered 501(c)3 and (c)4 organizations for the years 2008 and 2011. Next, I filtered this data by all NTEE codes *except* those in table 6 (i.e., codes A through H and Q through Z), which provided data for all 501c(3) and c(4) organizations in every other category except Human Services. Finally, I aggregated these organizations among my sample of counties to obtain the number of other NPOs per county for each year - 2008 and 2011.

## Statistical Analysis

This section discusses the analyses performed using the above mentioned variables to test the hypotheses in my model. I tested my model using multilevel modeling (MLM) technique in regression; specifically, I used a linear regression model for testing hypotheses 1 through 6, and a polynomial regression model for testing hypothesis 7. Multilevel modeling is the most common technique used for longitudinal studies and is considered appropriate to analyze nested data such as individuals residing in teams (Braun, Kuljanin, & DeShon, 2013; Luke, 2004; Tabachnick & Fidell, 2007). Additionally, MLM allows the incorporation of nonlinear relationships as well as interaction on nonlinear relationships in a model. In my study, the NPSEs are nested within counties and the hypotheses involve a nonlinear relationship. Therefore, regression using MLM seemed appropriate.

Regression analysis includes many techniques for modeling and analyzing several variables when the focus is on the relationship between a dependent variable and an independent variable (Ramcharan, 2006). Regression analysis thus helps one understand how the typical value of the dependent variable changes when any one of the independent variable is varied, when other independent variables are held fixed. For the hypotheses stated in my study, variables were essentially studied in the context of whether they are dependent variables or independent variables. Furthermore, regression is considered appropriate for examining relationships between socioeconomic indicators, NPSE density, and NPSE revenues because all of these sets of variables in my study are continuous variables. The justification for the use of regression analysis also stems from the fact that such analysis is best suited for examining studies that do not imply causality in relationships or an influence of one variable over another (Cook & Weisberg, 1982; Hastie, Tibshirani & Friedman, 2009). In my study, the hypotheses were focused on finding an association between two variables and not necessarily causation. For example, some NPSEs may choose to locate in a particular region simply because of strong networks or affiliations, regardless of the availability of charitable contributions. Similarly, causation would imply that all counties with a high rate of charitable giving or household income would have dense populations of NPSEs, which is clearly not the suggestion that I make. Thus, regression using MLM was considered the appropriate method for analyzing the data for my study. I conducted the analysis using a combination of SPSS and AMOS software.

I commenced my analysis by conducting an analysis of missing values in my dataset. My research model contains a total of 12 variables, including four control variables. Out of the four control variables, three had at least 2% of the values missing, which made an analysis of missing data necessary. An initial evaluation showed that the largest percentage of missing values for any

of these three variables was 7%. Therefore, to ascertain whether this data were MCAR (Missing Completely At Random), I conducted Little's MCAR test that returned a non-significant p-value ($p>0.05$) with a Chi-square statistic of 33.27 and 56 degrees of freedom. A non-significant p-value in Little's test indicates a failure to reject the null hypothesis of MCAR data. Therefore, the missing data in my study was proven to be MCAR. As MCAR is the least problematic type of missing data, it does not require extensive imputation (Little & Rubin, 2014). I addressed it in the analysis using pairwise deletion (Little, 1992; Marsh, 1998).

As mentioned earlier in this chapter, I used log transformation on the predictor variables of charitable giving, government spending and household income since the data for these variables divulged from normality as evident from the statistics of skewness and kurtosis. The transformation resulted in these variables meeting the acceptable range and the results were also corroborated by the histograms and Q-Q plots of the log converted variables. Therefore, the normality assumption for all predictor variables was considered to be fulfilled.

In the next step, I examined the correlations among the predictor variables in my model to identify and address potential multicollinearity issues. Table 9 provides pairwise correlations among the predictors, control variables and dependent variable of my study.

Table 9. Pairwise correlations, means and standard deviations for the study variables

*Correlations among socioeconomic factors and control variables*

| | M | SD | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1. 2008 NPSE Size | 75465349.40 | 338889583.07 | 1 | | | | | | | | | |
| 2. 2008 NPOs | 59.97 | 191.44 | .86** | 1 | | | | | | | | |
| 3. 2008 Businesses | 2714.48 | 8589.73 | .78** | .94** | 1 | | | | | | | |
| 4. 2008 Population | 4.54 | 0.59 | .44** | .55** | .55** | 1 | | | | | | |
| 5. 2011 NPSE Size | 94802032.74 | 435623006.04 | .88** | .89** | .79** | .44** | 1 | | | | | |
| 6. 2011 NPOs | 65.69 | 219.65 | .85** | .99** | .94** | .53** | .89** | 1 | | | | |
| 7. 2011 Businesses | 2622.89 | 8408.18 | .77** | .94** | 1.00** | .55** | .79** | .95** | 1 | | | |
| 8. 2011 Population | 4.55 | 0.60 | .44** | .55** | .56** | .98** | .44** | .54** | .56** | 1 | | |
| 9. Poverty | 15.36 | 5.87 | - .07** | - .09** | - .10** | - .16** | - .07** | - .09** | - .10** | - .17** | 1 | |
| 10. Diversity | 12.75 | 12.85 | .19** | .22** | .20** | .27** | .19** | .21** | .20** | .28** | .32** | 1 |
| 11. Unemployment | 5.87 | 2.03 | - .04* | - .03 | - .02 | .06** | - .04 | - .03 | - .03 | .05** | .44** | .19** |
| 12. Charitable giving | 4.00 | 0.78 | .42** | .52** | .52** | .94** | .42** | .51** | .52** | .96** | - .26** | .31** |
| 13. Govt. spending | 2.63 | 0.62 | .47** | .58** | .57** | .84** | .48** | .57** | .56** | .85** | - .17** | .30** |
| 14. Household income | 4.63 | 0.10 | .22** | .28** | .27** | .42** | .22** | .27** | .27** | .43** | - .85** | - .10** |
| 15. NPSE Density | 34.24 | 88.47 | .83** | .96** | .93** | .61** | .84** | .96** | .93** | .62** | - .13** | .21** |
| 16. NPSE Performance | 1143624.45 | 2102999.54 | .19** | .19** | .17** | .20** | .22** | .19** | .17** | .20** | - .02 | .08** |

Note: Pairwise correlations. Diversity = Ethnic/Racial diversity. M = Mean; SD = Standard Deviation
The data on control variables of NPSE size, NPOs, Businesses, and Population are from 2008 and 2011.
* $p < .05$; ** $p < .01$; $N = 2780$

Table 9. (Continued)

*Correlations among socioeconomic factors and control variables*

| | M | SD | 11 | 12 | 13 | 14 | 15 | 16 |
|---|---|---|---|---|---|---|---|---|
| 11. Unemployment | 5.87 | 2.03 | 1 | | | | | |
| 12. Charitable giving | 4.00 | 0.78 | - .02 | 1 | | | | |
| 13. Govt. spending | 2.63 | 0.62 | - .06** | .82** | 1 | | | |
| 14. Household income | 4.63 | 0.10 | - .38** | .52** | .41** | 1 | | |
| 15. NPSE Density | 34.24 | 88.47 | - .04* | .58** | .64** | .32** | 1 | |
| 16. NPSE Performance | 1143624.45 | 2102999.54 | .03 | .18** | .23** | .08** | .20** | 1 |

Note: Pairwise correlations. Diversity = Ethnic/Racial diversity. M = Mean; SD = Standard Deviation
The data on control variables of NPSE size, NPOs, Businesses, and Population are from 2008 and 2011.
* $p < .05$; ** $p < .01$; $N = 2780$

There were two correlation coefficients with significantly high values that increased the likelihood of potential multicollinearity issues among certain predictors. First, the correlation between poverty and income (-0.85) was high, negative, and significant at 1% level. Second, the correlation between the log values of charitable giving and government spending (0.82) was high, positive, and significant at 1% level. The non-transformed values of charitable giving and government spending also displayed a similarly high and significant correlation, thereby necessitating an analysis of multicollinearity.

It is worth mentioning here that a certain level of correlation among predictors in macroeconomic studies may be unavoidable due to the interconnection of the operating variables. For example, research suggests that unemployment is often an underlying cause of poverty (Xue & Zhong, 2003); therefore, counties with high poverty may also have high rates of unemployment. Similarly, since poverty and income are the antithesis of each other, counties with high levels of poverty would be unlikely to have high levels of income. From this perspective, a significant and negative correlation of -0.846 between poverty and income was not surprising. Additionally, since my study classifies these variables into two categories – indicators of resource-availability and resource-scarcity - a substantial correlation among some but not all indicators in the same category (e.g., charitable giving and government spending) is unlikely to jeopardize the theoretical contribution of my research questions. Nonetheless, very high correlations between predictor variables may be a sign of multicollinearity, and may raise questions on whether the two variables are indeed separate variables. Furthermore, a high level of correlation among predictors suggests that there may be potential for making the model more parsimonious by reducing the number of predictors. Hence, in order to examine potential existence of multicollinearity, I first conducted an examination of the Variance Inflation Factor

(VIF) on the set of predictor variables. The VIF is a reliable and widely used indicator of multicollinearity (Allison, 1999; O'Brien, 2007; Hair, Anderson, Tatham and Black, 1995; Kennedy, 1992). It provides a magnitude of the inflation in the standard errors associated with a particular beta weight that can be attributed to multicollinearity (Craney & Surles, 2002). Lower levels of VIF are desirable as they provide evidence of smaller variance and lack of dependence among the predictor variables, which in turns improves the results of multiple regression analysis (Allison, 1999). Various cutoff levels for VIF have been recommended in the literature, the smallest and most conservative of them being a value of 4 (O'Brien, 2007; Belsey, Kuh & Welch, 1980; Pan & Jackson, 2008; Rogerson, 2001). Accordingly, using SPSS, I obtained the VIF values for the two pairs of predictors in my model that were highly correlated. The output is provided in Tables 10 and 11.

Table 10. VIF test of multicollinearity between poverty and household income

| *Variable* | *Collinearity Statistics* | |
|---|---|---|
| | *Tolerance* | *VIF* |
| Poverty rate | .719 | 1.391 |
| Government spending | .441 | 2.267 |
| Charitable giving | .441 | 2.269 |
| Ethnic/racial diversity | .821 | 1.218 |
| Unemployment rate | .799 | 1.251 |

*Dependent variable: Household income*

| *Variable* | *Collinearity Statistics* | |
|---|---|---|
| | *Tolerance* | *VIF* |
| Household income | .773 | 1.294 |
| Government spending | .439 | 2.279 |
| Charitable giving | .431 | 2.320 |
| Ethnic/racial diversity | .900 | 1.111 |
| Unemployment rate | .842 | 1.187 |

*Dependent variable: Poverty rate*

Table 11. VIF test of multicollinearity between charitable giving and govt. spending

| *Variable* | *Collinearity Statistics* | |
|---|---|---|
| | *Tolerance* | *VIF* |
| Charitable giving | .833 | 1.201 |
| Ethnic/racial diversity | .777 | 1.287 |
| Unemployment rate | .798 | 1.253 |
| Household income | .316 | 3.161 |
| Poverty rate | .293 | 3.418 |

*Dependent variable: Government spending*

| *Variable* | *Collinearity Statistics* | |
|---|---|---|
| | *Tolerance* | *VIF* |
| Government spending | .851 | 1.176 |
| Ethnic/racial diversity | .773 | 1.294 |
| Unemployment rate | .798 | 1.252 |
| Household income | .323 | 3.098 |
| Poverty rate | .294 | 3.407 |

*Dependent variable: Charitable giving*

For the variables of poverty and income that were inversely and significantly correlated with a coefficient of -0.846, the collinearity diagnostics returned all VIF values less than 4 when regressing both these variables on each other. Similarly, for the variables of charitable giving and government spending that were positively and significantly correlated with a coefficient of 0.816, the diagnostics again returned all VIF values less than 4 when regressing both these variables on each other. Thus, considering the VIF cutoff value of 4 (Pan & Jackson, 2008; Belsey, Kuh & Welch, 1980), multicollinearity did not seem to be a major issue with the predictor variables in the study. However, the VIF values for both poverty and income were greater than 3 and close to the cutoff value when regressed upon the variables of charitable giving and government spending. This result necessitated an additional examination of multicollinearity to ascertain whether each variable in the pair was indeed different from the other. Therefore, I supplemented the VIF examination in SPSS by a Chi-Square test of multicollinearity in the AMOS software.

For the variables of poverty and income, the Chi-square test was significant ($p<0.001$) with a CMIN statistic of 3502.65 and 1 degree of freedom. This significant p-value suggested that the null hypothesis – that poverty and income are the same factor – was rejected. In other words, poverty rate and income level were found to be two different variables, and the high negative correlation between them could have been a result of their representing separate dimensions of a third, higher-order construct (i.e., economic condition of the county). Additional examination of this phenomenon was undertaken later in the analysis, which is described in the next chapter. Similarly, for the variables of charitable giving and government spending, the Chi-square test was significant ($p<0.001$) with a CMIN statistic of 3032.45 and 1 degree of freedom. The significant p-value again led to the rejection of the null hypothesis that charitable giving and

government spending were the same factor. Thus, all four variables of interest were found to be different from each other and appropriate for regression analysis as separate predictors.

Based on these results, I commenced testing the study hypotheses in the next step. I used the SPSS software to test the hypotheses of my study. First, I tested hypotheses 1 through 6 to examine the effects of Time 1 variables (i.e., six socioeconomic factors) on Time 2 variable (i.e., NPSE density). In this stage of hypotheses testing, I used multiple regression with forward selection and a criterion of $p = .05$ while controlling the effects of 2008 county population, business establishments, other NPOs and NPSE size (assets) for each of the six predictors. I tested three regression models in this first stage, the results of which are provided in the following chapter. In the second stage, I used polynomial regression to test hypothesis 7 examining the effect of Time 2 variable (NPSE density) on Time 3 variable (NPSE financial performance). Hypothesis 7 was tested using polynomial regression because it suggested a curvilinear relationship between NPSE density and their financial performance. The detailed results of this analysis are provided in the next chapter.

## Chapter 4: Results

This chapter describes the outcomes of regression analysis conducted to test the seven hypotheses, and explains the results obtained thereof. In the first stage, three different linear regression models were examined to test the linear relationships in hypotheses 1 through 6. In the second stage, a polynomial regression model was used to examine the curvilinear relationship in hypotheses 7.

### *Hypotheses 1 through 6: Linear Relationships*

I began the discussion of the first stage by testing the effects of six socioeconomic factors on NPSE density. Table 12 provides details on the three models (3a and 3b are considered a single model) used in this analysis including the variables studied in each model, the amount of variance explained by the model, unstandardized regression coefficients, standard errors and probability values along with their level of significance.

The first model incorporated the control variables of my study and was treated as the base model for examining the predictor variables in the next stage. As seen in Table 12, each of the control variables was significant with probability values less than 0.01. The model was significant ($F = 9806.68$, $df = 4$, $p = .000$) and explained a total of 93.9% variance in NPSE density. Overall, the results of model 1 showed significant effects of all control variables on NPSE density.

Next, I regressed the dependent variable of NPSE density on all six variables. Specifically, I entered all the control variables in the first step, followed by the six predictor variables in the second step in the SPSS software. The results of this stage of analysis are provided in Table 12 under Model 2.

Table 12. Effects of Socioeconomic Factors in Predicting County-level NPSE Density

Regression Results for Models 1, 2 and 3 – H1 through H6

| *Variable* | *Model 1* | *Model 2* | *Model 3a* | *Model 3b* |
|---|---|---|---|---|
| 2008 NPSE Size | 1.621*** | 1.902*** | 1.909*** | 1.898*** |
| | (0.000) | (0.000) | (0.000) | (0.000) |
| 2008 Other NPOs | 0.349*** | 0.322*** | 0.321*** | 0.323*** |
| | (0.008) | (0.008) | (0.008) | (0.008) |
| 2008 Businesses | -0.002*** | -0.002*** | -0.002*** | -0.002*** |
| | (0.000) | (0.000) | (0.000) | (0.000) |
| 2008 Population | 0.000*** | 9.488*** | 9.462*** | 9.488*** |
| | (0.000) | (0.000) | (0.000) | (0.000) |
| Charitable Giving | | 1.955 | 1.779 | 2.226* |
| | | (1.085) | (1.082) | (1.027) |
| Government Spending | | 15.309*** | 15.116*** | 15.332*** |
| | | (1.230) | (1.227) | (1.229) |
| Household Income | | 7.466 | 23.143*** | |
| | | (9.646) | (5.426) | |
| Poverty Rate | | - 0.327* | | - 0.433*** |
| | | (0.166) | | (0.093) |
| Unemployment Rate | | 0.278 | 0.201 | 0.262 |
| | | (0.237) | (0.234) | (0.236) |
| Ethnic Diversity | | - 0.175*** | - 0.200*** | - 0.171*** |
| | | (0.039) | (0.037) | (0.038) |
| $F$ Statistic | 9806.68*** | 4745.98*** | 5266.93*** | 5274.08*** |
| $R^2$ | 0.939*** | 0.949*** | 0.949*** | 0.949*** |
| $\Delta R^2$ | | 0.010*** | 0.010*** | 0.010*** |

*$* p < 0.05$; $** p < 0.01$; $*** p < 0.001$*

Dependent variable: 2011 NPSE Density. Standard errors are provided in parentheses.

$\Delta R^2$ for models 2, 3a and 3b are in relation to the base model 1. The changes were significant for all three models.

The model was significant (*F = 4745.98, df = 10, p = .000*) and explained a total of 94.9% variance in the outcome variable. The six predictors explained an additional 0.01 (1%) variance over and above the base model of four controls. As seen in the table, three predictors, namely household income, charitable giving and unemployment rate had p-values greater than 0.05 and were not found to be significantly related to NPSE density. While these may have been conclusive results under normal circumstances, in the present scenario, the high correlation and a proxy nature between some of my variables of significance and insignificance raised concerns that the predictors that were significant might be exhibiting suppressor effects (Chatelain & Ralf, 2014), which occurs when one explanatory variable is correlated with another either by the nature of the relationship (e.g., one is the squared term of the other) or because the theory underlying the model mandates it (Voss, 2004). In my case, the latter seemed to be a strong reason for these results. For instance, as mentioned earlier, poverty rate and income levels are essentially proxies for each other. This was evident because the individual effects of both these variables were significant and in the hypothesized directions when tested independently. When a researcher regresses a dependent variable on two independent variables that are normally substitutes of each other, he/she is basically "controlling the relationship between an independent variable and a dependent variable for itself" (O'Brien, 2007; p.684). Under such circumstances, it would be advisable to either remove one of the variables from the analysis or to combine them into a single measure and use the new variable in the analysis, if the theory supports the removal or the combination (O'Brien, 2007). In my study, poverty rate and household income of a county theoretically seem to represent a single construct – the financial condition of that county. Similarly, charitable giving and government spending also represent a single construct - the philanthropic resources available to a county - albeit from different sources. While this argument

may be made conceptually, additional statistical evidence was necessary to validate it, and to check whether these variables were indeed two separate dimensions of a single factor. In order to do so, I conducted a principal component analysis on these predictors, the results of which are explained below.

**Principal Component Analysis**

The principal component analysis was conducted on the four predictors namely income, poverty, government grant and charitable giving in order to evaluate whether they represented two latent factors based on the highly significant pairwise correlations among them. The principal axis method was used to extract the components, and this was followed by a varimax (orthogonal) rotation. The initial extraction using SPSS provided the eigenvalues for the four components that are provided in Table 13.

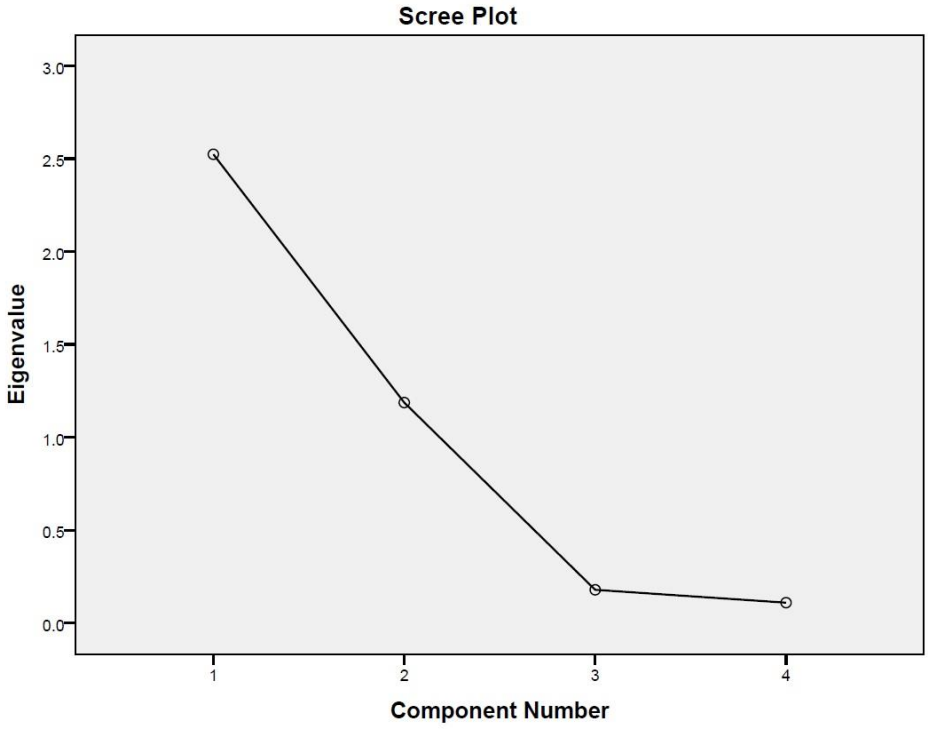
Table 13. Eigen value examination for component retention

| *Component* | *Initial Eigen Values* | | | *Extraction Sum of Squared* | | |
|---|---|---|---|---|---|---|
| | *Total* | *Variance* | *Cumulative* | *Total* | *Variance* | *Cumulative* |
| 1 | 2.525 | 63.1% | 63.1% | 2.525 | 63.1% | 63.1% |
| 2 | 1.187 | 29.7% | 92.8% | 1.187 | 29.7% | 92.8% |
| 3 | 0.179 | 4.5% | 97.2% | | | |
| 4 | 0.110 | 2.8% | 100% | | | |

Extraction method: Principal Component Analysis

As seen in Table 13, the first two components accounted for the maximum amount of variance (92.775% total) and had eigenvalues greater than 1. Based on these results, two components seemed meaningful to be retained and rotated for interpretation (Kaiser, 1960). An additional examination of the scree plot was conducted to corroborate this decision. The scree plot in figure 2 lent further support to the two component rotation. Thus, both the scree plot and the eigenvalues support the conclusion that the four variables may be reduced to two components.

Figure 2. Scree Plot from Principal Component Analysis



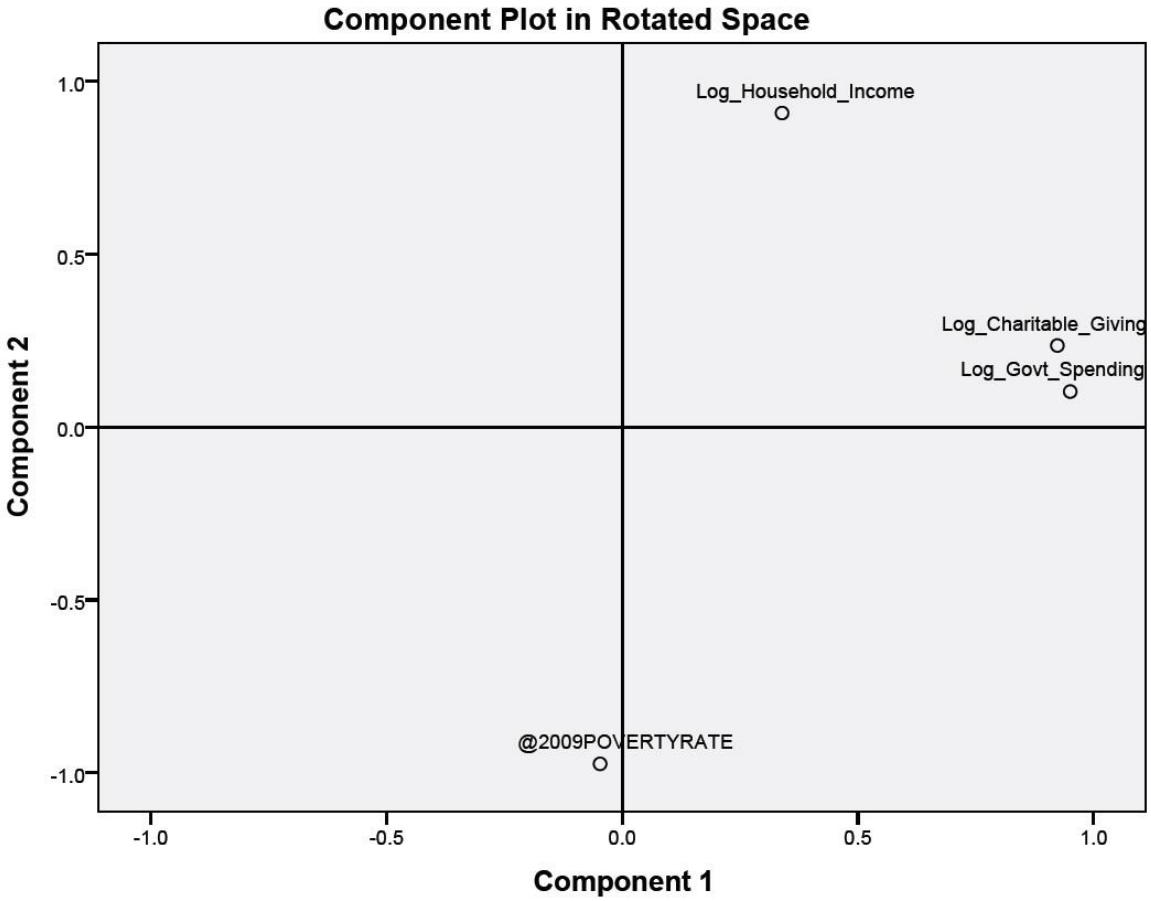
In the next step, I obtained the rotated component matrix using varimax rotation as well as a component plot in rotated space. The factor loadings obtained in the rotated matrix are provided in Table 14.

Table 14. Factor loadings from the rotated component matrix

| *Variable* | *Factor Loadings* | |
|---|---|---|
| | *Component 1* | *Component 2* |
| Charitable giving | .923 | .235 |
| Government spending | .950 | .102 |
| Household income | .339 | .908 |
| Poverty rate | -.047 | -.974 |

As seen in the rotated component matrix, all four factors loaded cleanly on the two components, with charitable giving and government spending loading on component 1 (with factor loadings of 0.923 and 0.950 respectively), and household income and poverty rate loading on component two (with factor loadings of 0.908 and -0.974 respectively), indicating that both these pairs of variables measured a different higher order construct. This conclusion was supported by the examination of the component plot in rotated space (Figure 3).

Figure. 3 Component plot in rotated space



The component plot provides a visual representation of the factor loadings obtained in the rotated matrix. As seen in the plot above, charitable giving and government spending were situated close to each other in the second quadrant, indicating that they loaded highly and positively on the first component. On the other hand, household income and poverty rate being proxies to each other, were situated at the opposite ends of the spectrum. Additionally, household income was situated closer to the central vertical axis and away from government grant and charitable giving, indicating that income and poverty loaded highly and negatively on the second component. Thus, the principal component analysis of the four variables concluded that these variables represented two higher-order constructs. Since government grants and charitable giving represents modes of philanthropy, I renamed component 1 as "County Philanthropic Sources". Similarly, since income and poverty indicate a financial situation, I renamed component 2 as "County Financial Condition". In summary, principal component analysis validated the argument that income and poverty, because of being negatively correlated yet measuring a common construct, exhibited suppressor effects on each other when used together in regression analysis.

Based on the results of principal component analysis, it seemed appropriate to substitute income for poverty and vice versa while running regression analysis on the six predictors. Therefore, in the next stage of the analysis, I incorporated a third regression model entering all predictors except poverty in the first step, and then again entering all predictors except household income in the second step. This was done to examine the proxy effects of these two variables and validate their suppressor effects on one another as suggested by the principal component analysis. The results of this stage of analysis are provided in Table 12 under Models 3a and 3b.

For Model 3a that included all variables *except poverty*, the model was significant ($F$ = 5266.93, $df$ = 9, $p < 0.001$) and explained a total of 94.9% variance in the outcome variable. The

predictors explained an additional 0.01 (1%) variance over and above the base model of four controls. County-level charitable giving was found to be positively related to the number of NPSEs in the county, but the relationship was not significant ($\beta$ = 1.779; p = .10). Government spending at the county level, however, was positively and significantly related to the number of NPSEs ($\beta$ = 15.116; p < .001). Similarly, household income was also significantly and positively related to the number of NPSEs in a county ($\beta$ = 23.143; p < .001). For the hypotheses related to resource-scarcity, ethnic diversity was significantly and negatively related to the number of NPSEs as hypothesized ($\beta$ = -0.2; p < .001). However, the relationship between unemployment and number of NPSEs was positive and not significant ($\beta$ = 0.201; p = .392) thereby failing to support the hypothesis for the effect of unemployment rate on NPSE formation.

For Model 3b that included all variables *except household income*, the model was significant ($F$ = 5274.08, $df$ = 9, $p$ < .001) and explained a total of 94.9% variance in the outcome variable. The predictors explained an additional 0.01 (1%) variance over and above the base model of four controls. County-level charitable giving was found to be positively related to the NPSE density this time, and the relationship was significant at 5% level of significance ($\beta$ = 2.226; p < 0.05). Government spending at the county level was again positively and significantly related to the number of NPSEs ($\beta$ = 15.332; p < .001). Additionally, poverty rate was significantly and negatively related to the number of NPSEs in a county as hypothesized ($\beta$ = -0.433; p < .001). Similarly, ethnic diversity was significantly and negatively related to the number of NPSEs as hypothesized ($\beta$ = -0.171; p < .001). Finally, the relationship between unemployment and number of NPSEs was neither negative nor significant ($\beta$ = 0.262; p = .268).

In summary, model 3 (i.e., 3a and 3b) for testing hypotheses one through six was found to be the most reliable due to the consistency of its results. It provided robust evidence for the

significant effects of county-level government spending, poverty rate, household income and ethnic diversity (i.e., hypotheses 2, 3, 4 and 6) on the number of NPSEs established in the county. It also provided evidence against the hypothesized effects of charitable giving and unemployment rate (i.e., hypotheses 1 and 5). Furthermore, it also provided further validation of the substituting effects of household income and poverty found earlier in the principal component analysis, as both these variables were found to be significant predictors of NPSEs when tested in absence of one another. Hence, for the purposes of this study, both hypothesis 3 (household income) and hypothesis 4 (poverty rate) were considered supported.

In the following paragraphs, I summarize the findings for hypotheses 1 through 6.

*Hypothesis 1*. The first hypothesis suggested that the rate of charitable giving in a county at time 1 would positively influence the number of NPSEs in that county at time 2. The hypothesis was predicated on the theoretical argument of resource availability that suggests an increase in the density of organizations in areas that are rich in resources unique to those organizations (Baum & Oliver, 1996). This hypothesis was not supported in my study. Specifically, while the results provided evidence of a positive and significant relationship between charitable giving and NPSE density ($\beta$ = 2.226; p < .05) in model 3a when household income was removed from analysis, in both models 2 and 3a, when household income was part of the analysis, the regression coefficient for charitable giving failed to differ from zero at 5% level of significance. Since the results for charitable giving were inconsistent across the three models, there was insufficient evidence to support the first hypothesis. The inconsistent results could have been an outcome of multiple factors.

First, the data on charitable giving was not available for years 2009 or 2010, and I was compelled to use the data from the closest year (i.e. 2008). Since the effects of economic recession in the U.S. were experienced severely in 2008, the data on charitable giving for this year is more likely to be an anomaly than a norm. In other words, the areas where populations would otherwise contribute highly to nonprofits were more likely to have contributed less for 2008. It is now known that the income from charitable contributions declined substantially during the 2008 recession for all types of nonprofits except religious institutions due to mass erosion of individual wealth (Grusky, Western, & Wimer, 2011). So, when the data from this year are regressed on the number of NPSEs in 2011 (when the charitable giving rose again), inconsistent results are more likely to be obtained.

Second, charitable giving was computed from the total itemized deduction on the individual tax returns filed by the residents of a county. Currently, this data obtained from the NCCS repository for IRS Form 1040 Schedule A is the only comprehensive and reliable source of information on charitable giving available in the U.S. However, statistics show that a majority of tax-filers in the U.S. use a standard deduction (Lowry, 2014), the data on which is not available from the NCCS. Hence, it is likely that the actual amount of charitable giving per county may be higher than the available data. This could have been another reason why the hypothesized relationship did not hold. The present study was limited by the unavailability of complete data on charitable giving, but future studies could address this issue again when new data is made available by the NCCS.

*Hypothesis 2*. Hypothesis 2 suggested that the amount of government spending in a county for 2009 will positively influence the number of NPSEs in that county in 2011. I tested

this hypothesis using the number of federal grants and contracts issued to 501(c) organizations at the county level. Controlling for NPSE size, other NPOs, businesses and county population, the results of all models provided evidence for a positive and significant relationship between government spending and NPSE density. In model 2, the relationship was significant with a p-value less than .001, an unstandardized coefficient of 15.309 and a standard error of 1.23. Similarly, for model 3, the relationship was significant again when poverty rate was removed from the model ($\beta$ = 15.116; p < .001) as well as when income was removed from the model ($\beta$ = 15.332; p < .001). The standardized coefficient for government spending was 0.104, indicating that on average, for every single federal grant or contract issued in a county in 2009, the number of NPSEs in that county increased by 0.104 in 2011. The availability of government grants and contracts as indicated by their numbers represented the availability of resources for NPSEs in a county. Subsequently, a positive and significant relationship between the availability of these grants/contracts in 2009 and the number of NPSEs in 2011 provided sufficient evidence of a positive influence of government spending on NPSE density, indicating that NPSEs were more (vs. less) likely to establish in regions where government spending was higher (vs. lower). Therefore, hypothesis 2 was supported.

*Hypothesis 3*. For hypothesis 3, I suggested that the household income of a county for 2009 will positively influence the number of NPSEs in that county in 2011. This relationship was tested using log values of median household income for each of the counties while controlling for NPSE size, other NPOs, businesses, and county population.

In model 2, the relationship was not significant when tested jointly with the other variables ($\beta$ = 7.466; p = .439). However, the result of model 2 needed further examination due

to the inclusion of the variable of poverty rate that is theoretically a substitute of median household income. A principal component analysis was conducted on these variables to examine if they exhibited suppressing effects on each other (Chatelain & Ralf, 2012; Voss, 2004). Both household income and poverty rate loaded on a single factor with factor loadings of .908 and -.974 respectively, indicating that they acted as proxies for each other in the model and could be treated as substitutes. Hence, following the suggestions made by O'Brien (2007) for treating substitute variables in regression analysis, I tested household income and poverty rate alternatively in model 3.

In model 3a, median household income was found to have a positive and significant relationship with NPSE density when poverty rate was removed from the model ($\beta$ = 23.143; p < .001). The standardized coefficient for household income was 0.026, suggesting that on average, for every dollar increase in the median household income of a county in 2009, the number of NPSEs in that county increased by 0.026 in 2011. In my study, household income at the county level is treated as a socioeconomic indicator of resource availability for NPSEs. Subsequently, a positive and significant relationship between a county's median household income in 2009 and its NPSEs in 2011 provided a strong evidence of a positive influence of household income on NPSE density, indicating that NPSEs were more (vs. less) likely to establish in regions where household income of residents was higher (vs. lower). Therefore, hypothesis 3 was supported.

*Hypothesis 4*. Hypothesis 4 suggested that the rate of poverty in 2009 will negatively influence the number of NPSEs in 2011. The hypothesis was tested using the data on county-level poverty rate from ACS. Regulating the confounding effects of the four control variables,

the results of all regression models provided evidence for a negative and significant relationship between poverty rate and NPSE density.

For model 2, when all six predictors were tested jointly, the relationship was significant with a p-value less than .05, an unstandardized coefficient of -0.327 and a standard error of 0.166. In model 3b, the relationship was again found to be negative and significant ($\beta$ = -0.433; p < .001) when examined in absence of the variable of household income as per the suggestions of O'Brien (2007). Thus, the hypothesized relationship held for each of the regression models. The standardized coefficient for poverty rate was -0.027, indicating that on average, for every percentage increase in the poverty rate of a county for 2009, the number of NPSEs in that county decreased by 0.027 in 2011. As explained in chapter 2, a high level of poverty in the immediate environment of NPSEs is a socioeconomic indicator of resource constraint for such organizations. Subsequently, a negative and significant relationship between the poverty rate for 2009 and the number of NPSEs in 2011 provided a sufficient evidence of a negative influence of poverty rate on NPSE density, indicating that NPSEs were less (vs. more) likely to establish in regions where poverty levels were higher (vs. lower). Therefore, hypothesis 4 was supported.

*Hypothesis 5*. Hypothesis 5 suggested that the rate of unemployment in 2009 will negatively influence the number of NPSEs in 2011. The hypothesis was tested using county-level unemployment statistics obtained from the Bureau of Labor Statistics. Examining this relationship while controlling for the effects of the four control variables, the overall results supported the existence of a positive association between the two variables, and did not return significant probability values.

In model 2, the relationship was found to be insignificant and in the opposite direction than the one hypothesized. Specifically, the results of model 2 for this relationship provided a p-value of 0.242 with an unstandardized coefficient of 0.278 and a standard error of 0.237. Similarly, in model 3, the effect of unemployment rate on NPSE density was again found to be insignificant when tested alternatively in the presence and absence of both household income and poverty. Particularly, the unstandardized coefficient for unemployment was 0.201 with a p-value of 0.392 when poverty rate was removed from the model, and it was 0.262 with a p-value of 0.268 when household income was removed from the model. Hence, based on these results, hypothesis 5 was not supported.

A potential factor explaining this result could be the ratio of voluntary workforce to paid employees hired by the NPSEs in my sample. The volunteer population in a county is less likely to be affected by the decreasing employment opportunities (i.e., higher unemployment rates) than people looking for paid jobs because the very definition of employment by the Bureau of Labor Statistics contains a requirement for pay or profit. Since the volunteer workforce of NPSEs operates regardless of pay or profits, it is likely that the NPSEs in my sample were able to recruit a greater number of volunteers vis-à-vis paid employees and thereby able to operate effectively even in periods of high rate of unemployment in a county. This may be a potential reason why the relationship between unemployment and number of NPSEs was found to be positive. However, since I did not measure the volunteer base of my sampled NPSEs, I could not validate this argument.

*Hypothesis 6*. For hypothesis 6, I suggested that the ethnic/racial diversity in 2009 will negatively influence the number of NPSEs in 2011. I tested this hypothesis by calculating the

total percentage of minority population vis-à-vis the majority population as a representation of ethnic diversity in each county. After regulating the confounding effects of the four control variables, the results of all regression models provided evidence for a negative and significant relationship between ethnic/racial diversity and NPSE density.

For model 2, when all six predictors were tested jointly, the relationship was significant with a p-value less than .001, an unstandardized coefficient of -0.175 and a standard error of .039. Similarly, in model 3, the relationship was again found to be negative and significant for both instances when household income and poverty were tested alternatively ($\beta$ = -0.2; p < .001 in absence of poverty rate; $\beta$ = -0.171; p < .001 in absence of household income). Thus, the relationship held for each of the regression models. A high level of ethnic/racial diversity in the immediate environment of NPSEs is a socioeconomic indicator of resource constraint for such organizations as per the arguments made in my study. Subsequently, a negative and significant relationship between the county-level minority populations for 2009 and the number of NPSEs in 2011 provided sufficient evidence of a negative influence of ethnic/racial diversity on NPSE density, indicating that NPSEs were less (vs. more) likely to establish in regions where the percentage of minority populations were higher (vs. lower). Therefore, hypothesis 6 was supported.

***Hypothesis 7: Curvilinear Relationship***

Hypothesis 7 suggested a curvilinear relationship between NPSE density and their financial revenues. In the second phase of hypotheses testing, I used polynomial regression to test this curvilinear relationship.

**Polynomial Regression**

Polynomial regression was used to test the hypothesized curvilinear (inverted U-shaped) relationship between the predictor and the dependent variable because it involves a technique to test non-linear relationships using a quadratic equation (Fan & Gijbels, 1996). Following the steps conducted by prior research in testing curvilinear relationships using polynomial regression (e.g., Janssen, 2001; Le et al., 2011), I added the dependent variable of average revenues per county along with the four control variables in the first step of regression. In the second step, I added NPSE density as the independent variable. Finally, in the third step, I calculated the quadratic value of NPSE density (i.e., the squared term) to represent the hypothesized curvilinear effect (Cucina & Vasilopoulos, 2005; Le et al., 2011) and added it to the regression model. If the quadratic term obtained upon running the regression is negative and statistically significant, then a curvilinear relationship can be said to exist between the predictor and the outcome variable (Le et al., 2011). The results obtained after running the model are provided in Table 15.

Table 15. Curvilinear Effect of NPSE Density on NPSE Financial Performance

Results for Polynomial Regression - Hypothesis 7

| *Variable* | *Control* | *Control + Density* | *Control + Density + Quadratic Term* |
|---|---|---|---|
| 2011 Population | 1.465** | 0.785 | 1.211* |
| | (0.560) | (0.593) | (0.594) |
| 2011 Businesses | -61.210* | -45.035 | -34.617 |
| | (29.925) | (30.234) | (30.126) |
| 2011 Other NPOs | -413.526 | -2154.795* | -1143.095 |
| | (818.528) | (960.795) | (972.386) |
| 2011 NPSE Size | 0.001*** | 0.001*** | 0.001*** |
| | (0.000) | (0.000) | (0.000) |
| NPSE Density | | 5707.417** | 4286.803* |
| | | (1657.328) | (1667.580) |
| NPSE Density Squared | | | -5.220*** |
| | | | (0.930) |
| $F$ Statistic | 37.231*** | 32.273*** | 32.445*** |
| $R^2$ | 0.051*** | 0.055** | 0.066*** |
| $\Delta R^2$ | | 0.004** | 0.011*** |

*$p < 0.05$; **$p < 0.01$; ***$p < 0.001$

Dependent variable: 2013 NPSE Financial Performance. Standard errors are provided in parentheses.
$\Delta R^2$ was significant for both the models.

For Table 15, the four control variables from 2011 were entered in SPSS in the first step. The base model of Control was significant ($F = 37.231$, $df = 4$, $p < .001$). In the second step, the independent variable of NPSE density was added to model. The model was significant again ($F = 32.273$, $df = 5$, $p < .001$), and NPSE density was found to be significantly and positively related to NPSE financial performance ($\beta = 5707.42$; $p < .01$). Finally, in the third step, I added the squared term of NPSE density representing the quadratic term to test whether the relationship turned curvilinear. The resulting model was significant ($F = 32.445$, $df = 6$, $p < .001$) and the quadratic term was found to be negatively and significantly related to NPSE financial performance ($\beta = -5.22$; $p < .001$), indicating that a curvilinear relationship existed between NPSE density and average NPSE revenues per county. Thus, county-level density of human services NPSEs was found to have an inverted U-shaped relationship with the county-level financial performance of NPSEs.

While the above result was considered conclusive for supporting hypothesis 7, I supplemented the analysis of curvilinear effects further by testing the effects of each of the codes under human services category *individually* (i.e., codes I, J, K, L, M, N, O and P). I conducted this supplementary exercise to add further validity to the results of hypothesis 7 test. Prior studies have examined organizations in each of the eight codes of human services individually while treating them as industries based on the common properties of organizations within each code (e.g., Hodgkinson & Toppe, 1991; Kapur & Weisbrod, 1998; Schmid, 2002). Hence, examining the predictive effects of each code separately on NPSE financial performance would provide further validation of the curvilinear relationship found in hypothesis 7. Therefore, in the final stage of the analysis, I studied the effects of NPSEs under each code while controlling for the effects of NPSEs under the other seven codes.

I followed the same steps of polynomial regression as described earlier. As an example, for the effects Code-I density, I entered the dependent variable of county-level average revenues in the first step along with the four original control variables and seven additional control variables (i.e., NPSEs under J, K, L, M, N, O & P codes). In the second step, I entered the predictor variable – density of Code-I NPSEs. Finally, in the third step, I calculated the quadratic (squared) term of Code-I NPSEs to represent the hypothesized curvilinear effect and entered it in the analysis. Upon running the regression model, the results provided a quadratic term for Code-I that was negative and statistically significant ($\beta$ = -396.35; p < .000), thereby providing support for a curvilinear relationship. I repeated the same process for each of the other seven Codes. The results of this supplementary analysis including the unstandardized regression coefficients, standard errors, model significance, and adjusted $R^2$ are provided in Appendices A through H. The quadratic terms for all the codes had negative coefficients that were statistically significant at 1% level of significance or lower. Thus, NPSE densities for each of the eight sub-categories under human services category were also found to have an inverted U-shaped relationship with average county-level revenues. A summary of the results for hypothesis 7 is provided below.

*Hypothesis 7.* Hypothesis 7 suggested that the county-level density of NPSEs in 2011 will have a curvilinear (inverted U-shaped) relationship with the county-level average revenues of NPSEs in 2013. The hypothesis was predicated on the theoretical argument of collaboration and competition between organizational populations in response to finite resources in the environment. I tested this hypothesis using a quadratic term of 2011 NPSEs and following the steps under polynomial regression as per the guidelines of prior research (e.g., Janssen, 2001; Le et al., 2011). While testing the relationship, I controlled for the potential effects of four variables

namely, county population, other NPOs, business establishments and NPSE size. The regression results returned a positive and significant coefficient for NPSEs density ($\beta$ = 4286.803; $p < .05$) and a quadratic term (i.e. squared term of NPSE density) with a negative unstandardized coefficient of -5.22, standard error of 0.93 and a significant p-value ($p < .001$), indicating that an inverted U-shaped relationship existed between the number of NPSEs in a county in 2011 and the average NPSE revenues for that county in 2013.

The explanation of NPSE density provided in the earlier chapters suggests that NPSEs are likely to indulge in the dynamics of collaboration as well as competition depending on the availability versus scarcity of resources in their immediate environment; thereby having improved financial performance at lower density levels and poor financial performance at higher density levels. Subsequently, a positive coefficient for the predictor variable (i.e., NPSE density) and a negative and significant coefficient for the quadratic term (i.e., NPSE density squared) provided sufficient evidence of a positive as well as negative influence of NPSE density on average NPSE financial performance. Therefore, hypothesis 7 was supported.

Furthermore, a supplemental examination of NPSE density for each of the eight codes under the human services category also provided significant results for the hypothesized curvilinear relationship. The regression coefficients of quadratic terms for all eight codes were negative and significant at 1% level of significance or lower (please refer Appendices A through H). Specifically, the 2011 density of NPSEs under code I (crime and legal related), code J (employment services), code K (food and nutrition), code L (housing and shelter), code M (public safety and disaster relief), code N (sports and recreation), code O (youth development), and code P (general human services) *independently* exhibited a curvilinear effect on 2013

average county-level NPSE revenues. Stated alternatively, these results substantiated the theoretical arguments made for hypothesis 7.

Table 16 provides a summary of all the hypotheses for the study and their results.

Table 16. Hypotheses results

| *Hypothesis* | *Variables and Direction* | *Type* | *Result* |
|---|---|---|---|
| H1 | Charitable giving ➔ NPSE Density | (+) | Not supported |
| H2 | Government spending ➔ NPSE Density | (+) | Supported |
| H3 | Household income ➔ NPSE Density | (+) | Supported |
| H4 | Poverty rate ➔ NPSE Density | (-) | Supported |
| H5 | Unemployment rate ➔ NPSE Density | (-) | Not supported |
| H6 | Ethnic/Racial diversity ➔ NPSE Density | (-) | Supported |
| H7 | NPSE Density ➔ NPSE Revenues | (+/-) | Supported |

## Chapter 5: Discussion and Conclusion

This chapter provides a discussion of the study's findings in relation to the research questions, its contribution to theory, and implications for future research along with certain limitations of the study.

### Summary of Research

The goal of my study was to examine the role of environmental resources in the location choices and agglomeration of NPSEs, and ultimately the effects of such agglomeration on their revenues. The theoretical argument I put forth is rooted in the tenets of organizational ecology and states that an environment containing higher levels of resources unique to a nonprofit form will attract more NPSEs because of the process of natural selection highlighted under organizational ecology, and the subsequent increase in NPSE density in such regions will initially have a positive effect on their financial performance (due to the cooperative nature of nonprofits) but eventually a negative influence on their revenues (due to increased competition for limited resources leading to density dependence). In order to examine this argument, I developed and tested a conceptual model of the NPSEs' socioeconomic context; specifically, the effects of county-level socioeconomic indicators of resources on the density of NPSEs and the eventual effects of such density on the NPSEs' overall financial performance in the county.

Using county-level archival data on six socioeconomic factors namely, charitable giving, government spending, household income, poverty rate, unemployment rate and ethnic/racial diversity, I conducted a longitudinal analysis of the relationships between these variables and the county-level populations of 501(c) NPSEs, while controlling for county-level population, NPSE size, business establishments and other NPOs. The data on the six indicators was obtained from the U.S. Census Bureau, American Community Survey and the Bureau of Labor Statistics. The

NPSE sample was obtained from the National Center for Charitable Statistics using the data on 501(c) organizations operating in the human services areas, specifically, crime and legal issues, employment, food and nutrition, housing and shelter, public safety, sports and recreation, youth development, and other human services as per the classification under the National Taxonomy of Exempt Entities, as well as a further examination of their service revenues (earned income). I used multilevel modeling and polynomial regression to examine the relationships hypothesized in the model. A total of seven hypotheses were examined, each tested at 5% level of significance. The statistical analysis provided support for five of the seven hypotheses in the study.

In general, the results supported the effects of resource availability and constraints theorized in the study, suggesting that the indicators of a favorable resource environment for NPSEs are likely to have a positive effect on their agglomeration, while those indicating an unfavorable resource environment are likely to have a negative effect on NPSE agglomeration. Moreover, the results also supported the theoretical argument for density dependence, indicating that regional density of NPSEs is likely to have a curvilinear relationship with their revenues. Overall, the results suggest that NPSEs are more likely to agglomerate in areas that are rich in resources unique to these organizations. Hence, the importance of the ecology of NPSEs and its natural selection process cannot be discounted in the survival and operation of NPSEs. These findings highlight the need for additional research on the long-term value of SE in the nonprofit sector by providing an empirical evidence of lower NPSE density in areas with greater needs (e.g., ethnic diversity, higher poverty rates). Furthermore, they also raise questions about the widespread image of SE as a process not constrained by resource-scarcity, and the popular belief that it is the best remedy for solving all types of social issues. Particularly, the results suggest that NPSEs are still likely to rely extensively on their traditional, philanthropic model of

operation despite conducting commercial activities to generate earned income. Hence, it may be too early to expect them to gain self-sufficiency – a characteristic often highlighted of social enterprises (e.g., Boschee, 2001; Emerson & Twersky, 1996). The following paragraphs provide an explanation of the study's findings with respect to the three research questions developed earlier in the dissertation.

The first research question was concerned with examining how regional socioeconomic factors in the U.S. influence the location choices of human services NPSEs. The study results suggest that higher levels of household income, higher rates of government spending, lower levels of poverty rate, and a lower proportion of minority population in a region are factors that are likely to positively influence the location preferences of human services NPSEs in the U.S. Since the effects of charitable giving and unemployment rate were not found to be significant, further examination of these variables by future research is necessary before making any conclusive arguments on NPSE density. However, the preliminary results found in my study indicate that assistance from the government, homogeneity of the resident population, and financial well-being of a county are the critical factors in increasing the density of human services NPSEs in the county. Specifically, these factors are likely to positively influence the number of NPSEs because they adequately characterize and meet the dual resource needs of human services NPSEs (i.e., social and commercial), and thereby help in establishing an environment-organization fit as per the tenets of organizational ecology.

The second research question was concerned with evaluating how NPSE density is influenced by the availability versus scarcity of resources. The results suggest that, by and large, those socioeconomic factors that indicate an availability of financial resources for human services NPSEs are likely to positively influence their density, whereas the factors indicating a

scarcity or competition for financial resources are likely to negatively influence their density. On one hand, these results provide a counterintuitive view of NPSEs' location choices because nonprofit organizations are supposed to establish themselves in areas of greater human need that are characterized by scare financial resources and greater competition (e.g., Park & Kim, 2014; Peck, 2008). On the other hand, these results support the natural selection process under organizational ecology, which argues that a shift in the inherent composition of an organizational population (e.g., NPO to NPSE) is likely to change its resource needs and therefore the populations of the new form may be selected only in the environments that provide resources unique to such a form (Agarwal et al., 2002; Baum & Oliver, 1996; Peli, 2009). The results are also important because they substantiate the conceptual arguments of prior researchers who expressed concerns for an undesirable change in the preferences and focus of nonprofit organizations as a result of adoption of SE (e.g., Dees, 1998a; Eikenberry & Kluver, 2004). In summary, the results provided support for the theoretical argument that the regional socioeconomic factors of resource availability are likely to influence NPSE formation rates more strongly than those of resource scarcity.

The third and final research question was related to examining the influence of NPSE density on their financial performance. The results of the study showed that there exists an inverted U-shaped relationship between county-level density of human services NPSEs and their financial performance. Stated alternatively, NPSE density is likely to have both positive and negative effects on firm earnings, depending on the time period. Specifically, due to the underlying mechanisms of easier legitimization and greater cooperation that are the hallmarks of nonprofit organizations, human services NPSEs are initially likely to witness positive effects of density on their collective revenues. However, as density increases further in an environment of

finite resources, an increased competition arising out of the need for resources and a partly commercial structure of NPSEs is subsequently likely to have negative effects on their collective revenues. Based on this result, it can be argued that nonprofits that incorporate earned-income strategies to supplement their operational model are likely to start displaying the competitive traits of commercial firms as competitive pressures arise out of their agglomeration in a region.

## Contribution to Theory and Practice

The literature on social entrepreneurship is full of praise for individuals and organizations that apply business expertise and market-based skills in the pursuit of solving social problems. Primary among it are the studies that highlight social enterprises as organizations that establish themselves in resource-constrained areas or among marginalized communities and implement innovative strategies to solve social issues (e.g., Brown & Ashman, 1996; Di Domenico et al., 2010; Nicholls, 2006; Peredo & Chrisman, 2006). While this phenomenon is largely looked upon favorably, a few authors have highlighted the potential risks involved in SE when it is conducted by nonprofit organizations (Dees, 1998a; Eikenberry & Kluver, 2004). Specifically, theoretical arguments put forth by these authors express a concern that NPSEs (i.e., nonprofit organizations that generate earned income in order to fulfill their social missions) may run the risk of losing focus of their social missions and ultimately ignore their primary beneficiaries by focusing excessively on commercial activities (Eikenberry & Kluver, 2004). My dissertation is an attempt to contribute to this area of SE research by taking a resource-based approach to NPSE agglomeration using the tenets of organizational ecology theory. In doing so, my research makes several contributions to theory and practice.

First, this study contributes to strengthening the theoretical base of SE literature by providing a greater understanding of the ecology of nonprofit social enterprises; specifically, by

using organizational ecology theory to examine NPSEs' resource needs and location preferences. The current SE literature is characterized by a miscellany of viewpoints and disintegrated case-studies, primarily due to a lack of research efforts utilizing established theories, multivariate methods and formal, testable hypotheses (Choi & Majumdar, 2014; Short et al., 2009). Therefore, the present study contributes to the SE literature by using organizational ecology to develop a conceptual model of NPSE density and testing it using formal hypotheses. In essence, it explores the institutional context of SE – a research need highlighted repeatedly in the literature (Dorado & Ventresca, 2013; Doherty, Haugh & Lyon, 2014; Peattie & Morley, 2008) – and examines how the availability of resources determine the dynamics of density, competition and financial performance of NPSEs. In the process, it highlights that SE in a nonprofit context may alter the inherent composition and resource requirements of nonprofit organizations, thereby changing the organization-environment fit in such a way that populations of human services NPSEs may be less likely to emerge in regions where their services are actually required.

Second, this study highlights the role of natural selection process in SE; specifically, showing that enterprising nonprofits are more likely to thrive in environments that are rich in resources that suit the dual purpose of such organizations, as evident by higher rates of government spending, high household incomes, low poverty rates and low ethnic/racial diversity. This finding underscores the important role of environment and its resources in the successful establishment and financial sustainability of social enterprises. Under organizational ecology, the environment reigns supreme because it provides the resources vital for organizations. Therefore, the environment *selects* out of organizational populations based on the *fit* between the inherent structure of such organizations and the type of resources available. However, research on SE has largely downplayed the role of the environment selection process by repeatedly highlighting the

ability of social enterprises to *adapt* via innovative strategies such as bricolage (e.g., Di Domenico et al., 2010). This has led scholars to study social ventures extensively in resource-constrained environments with weak institutional structures in order to examine their adaptive capabilities (e.g., Alvord et al., 2004; Brown & Ashman, 1996; Nicholls, 2006). While this approach has made tremendous contributions to the literature, it has also left a large research gap in terms of examining the selection process, particularly the effects of environment and resource-availability on SE in developed economies that possess well-established institutional frameworks.

By undertaking a nationwide examination of NPSEs in all U.S. counties, the present study contributes towards filling this gap by explaining the location choices of NPSEs in a country with a relatively strong institutional environment. In doing so, it also highlights the role of supply side factors in influencing the location choice of NPSEs. The nonprofit literature has repeatedly found mixed results when evaluating whether demand side factors exert a greater influence on nonprofit activity than supply side factors or vice versa (e.g., Ben-Ner & Hoomissen, 1992; Gamm & Putnam, 1999; Salamon & Anheier, 1998). My study contributes to this area by suggesting that the answer may depend heavily on the internal structure and activities of the organization. Particularly, for NPOs adopting the commercial traits of an enterprise (i.e., NPSEs), the supply side factors characterized by availability of resources are more likely to hold sway over their location choices than demand side factors.

Third, this study contributes to the limited research on the density of social enterprises, and the dynamics of competition and cooperation among these organizations. Organizational density is a comparatively new research avenue in SE literature, especially because of the extensive focus of SE scholars on individual case studies and research involving only one or few

social enterprises (Short et al., 2009). For example, in their comprehensive review of the SE literature, Granados, Hlupic, Coakes and Mohamed (2011) found that 82% of articles were qualitative in nature with case studies dominating the research, whereas only 6% of the literature had a predictive orientation. Therefore, this study adds value to the literature by examining higher-order (i.e., county level) density dynamics of NPSEs by predicting and testing a curvilinear relationship between NPSE density and their county-level revenues. Subsequently, this study provides insights into the aspects of resource dependencies of NPSEs and shows that nonprofits that adopt social entrepreneurship are likely to face greater competition and reduced financial performance as a result of greater county-level density. This finding provides important insights because nonprofit organizations are generally known to be more collaborative and focus on partnerships (e.g., Austin, 2000; Lasprogata & Cotten, 2003; Samuel, Wolf & Schilling, 2013). Hence, an eventual decrease in the NPSE revenues in counties with higher NPSE densities indicates that the effects of local competition and resource-mobilization strategies are likely to follow the same trajectory in an NPSE setting as they do in a commercial setting.

Finally, this study contributes to reinforcing NPSE as a distinct organizational form by highlighting its resource and location preferences that do not strictly fall under the criteria of a business or a traditional NPO. One of the main goals of SE scholars has been to establish social enterprises as a distinct organizational form, for instance by highlighting its unique innovative capabilities (e.g., Di Domenico, Haugh & Tracey, 2010; Weerawardena & Mort, 2006) or emphasizing its commercial revenue generation ability (e.g., Boschee & McClurg, 2003). My study shows that NPSEs, in addition to the prior arguments of innovativeness and earning capabilities, are also distinct in terms of their unique institutional environment – i.e., they are more likely to thrive in an environment that can provide them both philanthropic and commercial

revenues for their overall resource needs. Therefore, part of the reason why populations of NPSEs may not be as densely established as those of commercial firms or traditional NPOs may be because such an environment is constantly likely to experience a shifting balance between socioeconomic indicators of philanthropic versus commercial support.

Overall, the study's findings contradict some widely-accepted arguments in the existing SE literature. Generally, social enterprises have been known to fill the voids left by the government, work for the betterment of diverse communities and specifically operate in resource-constrained environments by implementing innovative strategies (e.g., Brown & Ashman, 1996; Di Domenico et al., 2010; Nicholls, 2006; Peredo & Chrisman, 2006). However, the present study shows that human service NPSEs may not be a part of these generalizations, at least from a location point of view. More specifically, the results suggest that human services NPSEs are more likely to rely on government support, form a base in financially-stable regions and establish themselves in regions with higher ethnic/racial homogeneity in order to ensure survival and better financial performance. This change in their priorities may arise from their incorporation of commercial activities in addition to their philanthropic model of operation, as per the tenets of organizational ecology.

With respect to creating value for practitioners, the study makes some recommendations. First, it highlights the important role of government as the provider of legitimacy and resources to social enterprises. In the nonprofit literature, the relationship between government and nonprofit organizations has been found to be complex and dynamic since their activities may complement, supplement or stand in conflict with each other's (e.g., Akingbola, 2005; Young, 2000). However, this study suggests that the government has a critical role to play in fostering SE among nonprofit organizations, partly because NPSEs seem to rely heavily on the grants and

contracts obtained from the government despite supplementing their operations by commercial activity. Put alternatively, NPSEs may find it difficult to achieve self-sufficiency in absence of support from the government by way of funding and legitimacy, at least during the initial stages of SE. This argument, in turn, has implications for the public administrative agencies and officers responsible for evaluating NPSEs performance and extending grants and contracts to these organizations. Specifically, using the commercial operations of NPSEs as a justification for decreasing/removing funding extended to them could adversely impact the survival prospects of these organizations. Therefore, public sector agencies should be more flexible in evaluating NPSEs by considering the possibility that the commercial model of an NPSE is more likely to be rooted in necessity than opportunity.

Second, the study offers some suggestions to aspiring social entrepreneurs and nonprofit managers planning to initiate commercial activities for their organization. Particularly, it provides empirical evidence on the important economic and social indicators that aspiring social entrepreneurs should pay attention to prior to initiating an NPSE. New social enterprises are more likely to fail than commercial ventures (Renko, 2013). Therefore, paying careful attention to the contextual factors that enable or constrain their activities may increase the likelihood of survival and success of NPSEs. Hence, aspiring social entrepreneurs may find it useful to conduct their operations in regions where they can avail the critical resources that are indicated by the socioeconomic factors of higher government spending, greater household income, lower poverty rates and greater homogeneity of the resident population.

Lastly, from a stakeholder perspective, NPSEs may experience difficulty in communicating their social purpose and engendering trust among their prime beneficiaries because they seem to locate themselves away from the marginalized areas in the pursuit of

financial resources. It is necessary for nonprofits to have a close interaction with the ultimate recipients of their services; moreover, the extent of support they receive from donors and other resource providers often depends upon their reputation and their ability to communicate information about their activities to these stakeholders (Donovan & Jackson, 1991; Hasenfeld, 1992; Trussel & Parsons, 2007). However, when nonprofits choose to locate away from their ultimate beneficiaries as found in the case of NPSEs, communicating vision and activities to their stakeholders and beneficiaries is likely to become more difficult, which may in turn put their reputation and social missions in jeopardy. Using longitudinal data, future research could explore the impact of NPSEs' location choices on the accomplishment of their social missions.

## Limitations

Even with all the necessary precautions taken, the study was not free from certain limitations. Particularly, there may be some inherent issues in the type of data collected and the operation of the study. First, the 501(c) organizations that incur total revenues less than $25000 in a given year are not legally required to file form 990. Thus, some NPSEs having revenues below $25000 were not included in my study. This constraint may create potential problems in capturing the true density of NPSEs at the county-level since several community-level NPSEs may have a small size, especially during the initial years of their existence. Unfortunately, this problem was unavoidable because complete data on very small NPSEs do not exist yet, and the NCCS database is the only major source of information on nonprofit organizations that provides comprehensive data on all the relevant variables in my model. Despite this limitation, it is worth noting that the inability to collect data on very small NPSEs was not likely to jeopardize the results or contribution of my study. My primary goal was to examine the environmental effects on a specific type of NPSEs, not the effects of NPSEs on the environment (in which case,

obtaining information on small NPSEs may be necessary). Additionally, as per the tenets of organizational ecology, the small size and limited revenues of NPSEs missing from my data were likely to prevent them from exerting power or resource-constraints on the NPSEs examined in my sample. Therefore, the research question on adaptive strategies of NPSEs was not likely to be jeopardized due to the unavailability of data on very small NPSEs. Nonetheless, it would be valuable if future research could address this limitation by using more comprehensive databases for NPSEs that may be developed in the future (e.g., Social Enterprise Alliance Database).

Another limitation for the study was that the amount of additional variance explained by the inclusion of six socioeconomic predictors over the model of control variables, although significant, was quite small (i.e., 1%) for hypotheses 1 through 6. Small percentages of variance explained in $R^2$ may suggest a low importance of the selected predictors and may undermine the overall value of the study. However, there are several justifications for the small change in $R^2$ in the present study. First, several prior studies on nonprofit location choices have often found values of less than 1% for additional variance explained in $R^2$ when socioeconomic factors similar to mine were used as predictor variables (e.g., Bielefeld, Rooney & Steinberg, 2005; Blum, 2000; Joassart-Marcelli & Wolch, 2003). This is likely a result of the scope and nature of nonprofit studies. Specifically, since human services NPSEs have the sole purpose of addressing human needs, the population of a region is likely to explain a considerable amount of variance in their location choices. Similarly, the presence and size of other NPOs and businesses that directly compete with the NPSEs are also likely to exert considerable influence on their location choices, all of which were used as control variables in my study. Therefore, it is not surprising why the model of controls explained a large proportion of variance in NPSE density. In fact, finding $R^2$ in excess of 0.90 and an additional variance of less than 1% is not uncommon in studies of

nonprofit density involving socioeconomic factors such as government grants, income and poverty (e.g., Lecy & Van Slyke, 2012). As Abelson (1985) suggests, miniscule changes in variances are not a problem when there are individually tiny influences that cumulate to produce meaningful outcomes. When NPSE density is examined at a national-level involving all 3144 counties in the U.S., it is likely that this variable could be affected by a plethora of factors whose individual effects may be tiny but meaningful cumulatively. Therefore, it is conceivable why the six predictors in my study could not explain of lot of variance over the base model; however, the small proportion of variance was still significant, suggesting that the small change in $R^2$ did not diminish the importance of the study. Finally, percentage variance explanation is not a full-proof measure of variable effects as argued in the literature on research methods. For example, Abelson (1985; p. 129) argues that it could be a "misleading index of the influence of systematic factors" in certain situations. Similarly, Achen (1990; 173) stated that "$R^2$ is a purely descriptive quantity with little substantive content. It is not a parameter, and it will vary meaninglessly across samples even when the underlying statistical law is unchanged." Given the above arguments, the small yet significant changes in $R^2$ did not undermine the importance of the study.

Third, the NTEE code list that I used for NPSE classification has been criticized by some researchers for having certain misrepresentation of organizational class, such as classifying 'College Park Towers' as an educational institution, when it is in fact a housing complex for senior citizens (Turner, Nygren, & Bowen, 1993). Although the NCCS has undertaken considerable efforts over the course of years to address such concerns, including renaming of certain codes, addition of certain codes and encouraging the identification of errors from member organizations, there was still a likelihood that some of the NPSEs might be misrepresented in my

final dataset. To address this issue to some extent, I visually examined the major purpose classification of the organizations in my sample provided in the Core files downloaded from NCCS to ensure their correct representation. Classification based on the purpose and activity of an organization is more efficient than classification based on the organization's name (Salamon & Anheier, 1992). Therefore, my approach was likely to assist in reducing the effects of misrepresentation to a certain extent, if not completely eliminating them.

Lastly, my study focused only on NPSEs and did not take into consideration for-profit social enterprises (FPSEs). It is worth noting that several social enterprises may choose to adopt a for-profit form due to a variety of reasons such as better access to banks and venture capitalists or greater business competitiveness. The fact that the FPSEs were not examined in my study may undermine certain dynamics of resource dependence. For example, it is possible that the competitive pressures arising for NPSEs may be due to a large presence of FPSEs operating in the same area. Unfortunately, this problem was unavoidable since there does not exist currently a comprehensive database of FPSEs operating in the U.S. While efforts are still continuing to develop such a database (e.g., Social Enterprise Alliance), the progress is not sufficient for the data to be used in my study. Nonetheless, I attempted to address this concern partially by controlling for the effects of all county-level business establishments in my study. Since FPSEs are also likely to be registered as businesses and therefore included in the U.S. Census data on business establishments, controlling for their effects helped in preserving the effectiveness of my results. Nonetheless, I hope that future databases, especially projects such as the Social Enterprise Alliance will provide greater opportunities to researchers to examine all types of social enterprises in order to facilitate the development of this field.

## Implications for Future Research

Social entrepreneurship is still in need of research to establish its theoretical base. While this study was a humble attempt to examine SE in a nonprofit context, it is only a preliminary examination of NPSEs and their resource/location choices. Future research could build upon this study by examining NPSEs in a variety of different contexts. One such useful approach would be to examine NPSEs through the lens of resource dependence theory (Pfeffer & Salancik, 1978). Resource dependence theory (RDT) explains the aspects of inter-organizational relationships that revolve around power gained through the control of resources. Particularly, the theory focuses on the processes of adaptation in organization and suggests that a firm may undertake various tactics in order to adapt itself to the changing environment such as creating alternative sources of resource supply or entering into partnerships and alliances (Casciaro & Piskorski, 2005; Hillman et al., 2009). This approach in SE is likely to provide valuable insights into NPSEs' survival and success, and may provide answers to important research questions such as "how do NPSEs compete in areas of high density." Are they more likely to partner with businesses and other NPOs for survival and financial sustainability? Are they likely to use the services of a volunteer workforce more than paid employees'? Stated simply, combining the insights from RDT with the current findings of organizational ecology is likely to help us understand how the interwoven processes of *selection* and *adaption* operate in conjunction with each other to predict NPSE survival and success.

Future research could also examine potential moderators in the curvilinear relationship identified between NPSE density and their financial performance. Particularly, nonprofit and organizational literatures are rife with studies examining strategies that organizations use to reduce their resource dependency on others such as diversifying their revenue sources or setting

up partnerships with powerful firms (e.g., Austin, 2000; Carroll & Stater, 2009; Casciaro & Piskorski, 2005; Froelich, 1999; Hillman et al., 2009; Suchman, 1995). These strategies may also be relevant for NPSEs since some of the resources important for commercial firms, such as revenues from customers, are also valuable to NPSEs. Therefore, future research could examine whether these strategies may act as moderators in making the curvilinear relationship between density and revenues more positive.

Lastly, future research could also examine other categories of NPSEs besides human services organizations. As shown in Table 4, the IRS defines nine other categories of nonprofits under its taxonomy of exempt entities, and some of the dynamics of NPSE resources and competition may operate differently in those categories depending on their unique characteristics. Hence, examining the ecology of NPSEs in those areas is also likely to be a fruitful avenue for future research.

## Conclusion

Social entrepreneurship is a widely studied phenomena with 1343 articles published just between 1990 and 2010 (Granados et al., 2011). Research on SE has been conducted for nearly a quarter of a century and yet the domain is still in need of a stronger theoretical base, greater amount of empirical research using testable hypotheses, and more multivariate methods to supplement the individual case-studies that have dominated the literature (Short et al., 2009). This study was an attempt to contribute to all of these areas by conducting an empirical analysis of the resource environment and location choices of nonprofit social enterprises. I hope that future research will build upon this study by examining the impact of SE on the values, activities and outcomes of organizations in the nonprofit sector, which will lead to the further development of the field.

## References


Abelson, R. P. (1985). A variance explanation paradox: When a little is a lot.*Psychological Bulletin*, *97*(1), 129.

Abzug, R., & Webb, N. J. (1999). Relationships between nonprofit and for-profit organizations: a stakeholder perspective. *Nonprofit and voluntary sector quarterly*, *28*(4), 416-431.

Abu-Saifan, S. (2012). Social entrepreneurship: definition and boundaries. Technology Innovation Management Review, 2(2), 22-27.

Achen, C. H. (1990). What does "explained variance" explain?: Reply.*Political Analysis*, *2*(1), 173-184.

Acs, Z. J., & Varga, A. (2005). Entrepreneurship, agglomeration and technological change. *Small business economics*, *24*(3), 323-334.

Agarwal, R., Sarkar, M. B., & Echambadi, R. (2002). The Conditioning Effect of Time on Firm Survival: An Industry Life Cycle Approach. *Academy of Management Journal*, *45*(5), 971-994.

Aguinis, H., Beaty, J. C., Boik, R. J., & Pierce, C. A. (2005). Effect size and power in assessing moderating effects of categorical variables using multiple regression: a 30-year review. Journal of Applied Psychology, 90(1), 94.

Ahuja, G., & Morris Lampert, C. (2001). Entrepreneurship in the large corporation: A longitudinal study of how established firms create breakthrough inventions. *Strategic Management Journal*, 22(6-7), 521-543.

Aileen Boluk, K., & Mottiar, Z. (2014). Motivations of social entrepreneurs: Blurring the social contribution and profits dichotomy. *Social Enterprise Journal*, *10*(1), 53-68.

Akingbola, O. A. (2005). *Strategy, human resource management and government funding in nonprofit organizations.* (NR02682 Ph.D.), University of Toronto (Canada), Ann Arbor. ProQuest Dissertations & Theses Full Text database.

Aldrich. (1990). Using an ecological perspective to study organizational founding rates. *Entrepreneurship Theory and Practice*, *14*(3), 7-24.

Aldrich, H. (1999). *Organizations evolving*: Sage publications, 2nd edition, 344.

Aldrich, H. (2007). *Organizations and environments*: Stanford University Press, 416.

Aldrich, H. E., & Wiedenmayer, G. (1993). From traits to rates: An ecological perspective on organizational foundings. *Advances in entrepreneurship, firm emergence, and growth*, *1*, 145-195.

Alesina, A., & Ferrara, E. L. (2000). Participation in heterogeneous communities, *The Quarterly Journal of Economics*, 115(3), 847-904.

Alesina, A., & Glaeser, E. L. (2004). *Fighting poverty in the US and Europe: A world of difference* (Vol. 26): Oxford University Press Oxford, 264.

Alesina, A., & La Ferrara, E. (2002). Who trusts others? *Journal of public economics*, *85*(2), 207-234.

Allan, B. (2005). Social enterprise: through the eyes of the consumer (prepared for the National Consumer Council). *Social Enterprise Journal*, *1*(1), 57-77.

Allen, A. D. (2013). *Vulnerability and resource dependency: A quantitative study of nonprofit organizations in Alabama's Black Belt.* (3599270 Ph.D.), Capella University, Ann Arbor. ProQuest Dissertations & Theses Full Text database.

Allison, P. D. (1999). Multicollinearity. *Logistic Regression using the SAS System: Theory and Application*, 48-51.

Alvord, S. H., Brown, L. D., & Letts, C. W. (2004). Social Entrepreneurship and Societal Transformation: An Exploratory Study. *Journal of Applied Behavioral Science, 40*(3), 260-282.

Amburgey, T. L., & Rao, H. (1996). Organizational Ecology: Past, Present, and Future Directions *Academy of Management Journal, 39*(5), 1265-1286.

Amezcua, A., Grimes, M., Bradley, S., & Wiklund, J. (2013). Organizational Sponsorship and Founding Environments: A Contingency View on the Survival of Business Incubated Firms, 1994-2007. *Academy of Management Journal*, 56(6), 1628-1654

Amin, A. (2009). Extraordinarily ordinary: working in the social economy. *Social Enterprise Journal, 5*(1), 30-49.

Anderson, B. B., Dees, J., & Emerson, J. (2002). Developing viable earned income strategies. *Strategic tools for social entrepreneurs: Enhancing the performance of your enterprising nonprofit*, 191-234.

Anderson, M. B. (1996). *Development and social diversity*: Oxfam, 109.

Anheier, H. K. (2014). *Nonprofit Organizations: An Introduction: Theory, Management, Policy*: Routledge, 464.

Armington, C., & Acs, Z. J. (2002). The Determinants of Regional Variation in New Firm Formation. *Regional Studies, 36*(1), 33-45.

Arthur, W. B. (1990). 'Silicon Valley'locational clusters: when do increasing returns imply monopoly? *Mathematical social sciences, 19*(3), 235-251.

Audretsch, D., Dohse, D., & Niebuhr, A. (2010). Cultural diversity and entrepreneurship: a regional analysis for Germany. *The Annals of Regional Science, 45*(1), 55-85.

Audretsch, D. B., & Dohse, D. (2007). Location: a neglected determinant of firm growth. *Review of World Economics, 143*(1), 79-107.

Audretsch, D. B., & Feldman, M. P. (1996). Innovative clusters and the industry life cycle. *Review of industrial organization, 11*(2), 253-273.

Austin, Stevenson, H., & Wei-Skillern, J. (2006). Social and Commercial Entrepreneurship: Same, Different, or Both? *Entrepreneurship: Theory & Practice, 30*(1), 1-22.

Aziz, K. A., & Norhashim, M. (2008). Cluster-Based Policy Making: Assessing Performance and Sustaining Competitiveness. *Review of Policy Research, 25*(4), 349-375.

Bacq, S., & Janssen, F. (2011). The multiple faces of social entrepreneurship: A review of definitional issues based on geographical and thematic criteria. *Entrepreneurship & Regional Development, 23*(5-6), 373-403.

Baker, T., & Nelson, R. E. (2005). Creating Something from Nothing: Resource Construction through Entrepreneurial Bricolage. *Administrative Science Quarterly, 50*(3), 329-366.

Barrett, G. A., Jones, T. P., & McEvoy, D. (1996). Ethnic minority business: Theoretical discourse in Britain and North America. *Urban studies, 33*(4-5), 783-809.

Batjargal, B. (2003). Social capital and entrepreneurial performance in Russia: A longitudinal study. Organization studies, 24(4), 535-556.

Baum, & Oliver, C. (1991). Institutional Linkages and Organizational Mortality. *Administrative science quarterly, 36*(2), 187-218.

Baum, & Oliver, C. (1996). Toward An Institutional Ecology Of Organizational Founding. *Academy of Management Journal, 39*(5), 1378-1427.

Baum, J. A., & Mezias, S. J. (1992). Localized competition and organizational failure in the Manhattan hotel industry, 1898-1990. *Administrative science quarterly*, 580-604.

Beauvais, C., & Jenson, J. (2002). *Social cohesion: Updating the state of the research*: CPRN, 62.
Begley, T. M., Tan, W. L., & Schoch, H. (2005). Politico-economic factors associated with interest in starting a business: A multi-country study. *Entrepreneurship Theory and Practice, 29*(1), 35-55.
Bell, G. G. (2005). Clusters, Networks, and Firm Innovativeness *Strategic Management Journal, 26*(3), 287-295.
Belsley, D. A., Kuh, E., & Welch, R. E. (1980). *Regression diagnostics: identifying data and sources of collinearity*. Wiley-Interscience, Nueva York, 292.
Ben-Ner, A., & Hoomissen, T. (1992). An Empirical Investigation of the Joint Determination of the Size of the For-Proft, Nonprofit and Government Sectors *Annals of Public and Cooperative Economics, 63*(3), 391-415.
Ben-Ner, A. (2002). The shifting boundaries of the mixed economy and the future of the nonprofit sector. *Annals of Public and Cooperative Economics, 73*(1), 5-40.
Bhatt, P., & Altinay, L. (2013). How social capital is leveraged in social innovations under resource constraints? *Management Decision, 51*(9), 1772-1792.
Bielefeld. (1990). *Nonprofit response to resource environment change. (Volumes I and II).* (9109320 Ph.D.), University of Minnesota, Ann Arbor. ProQuest Dissertations & Theses Full Text database.
Bielefeld. (2000). Metropolitan nonprofit sectors: Findings from NCCS data. *Nonprofit and voluntary sector quarterly, 29*(2), 297-314.
Bielefeld, W., & Murdoch, J. C. (2004). The locations of nonprofit organizations and their for-profit counterparts: An exploratory analysis. *Nonprofit and voluntary sector quarterly, 33*(2), 221-246.
Bielefeld, W., Murdoch, J. C., & Waddell, P. (1997). The influence of demographics and distance on nonprofit location. *Nonprofit and voluntary sector quarterly, 26*(2), 207-225.
Bielefeld, W., Rooney, P., & Steinberg, K. (2005). How do need, capacity, geography, and politics influence giving. *Gifts of money in Americas communities*, 127-158.
Bird, M., & Wennberg, K. (2014). Regional influences on the prevalence of family versus non-family start-ups. *Journal of Business Venturing, 29*(3), 421-436.
Blackwood, A. S., Wing, K. T., & Pollak, T. H. (2008). Facts and Figures from the Nonprofit Almanac 2008: Public Charities, Giving, and Volunteering. *The Nonprofit Sector in Brief*, 8.
Blum, R. W., Beuhring, T., Shew, M. L., Bearinger, L. H., Sieving, R. E., & Resnick, M. D. (2000). The effects of race/ethnicity, income, and family structure on adolescent risk behaviors. *American Journal of Public Health,90*(12), 1879.
Boeker, W. (1991). Organizational strategy: An ecological perspective. *Academy of Management Journal, 34*(3), 613-635.
Boris, E. T., De Leon, E., Roeger, K. L., & Nikolova, M. (2010). *Human service nonprofits and government collaboration: Findings from the 2010 National Survey of Nonprofit Government Contracting and Grants*, Center for Nonprofits and Philanthropy, Urban Institute, 37.
Bornstein, D. (2004). How to Change the World: Social Entrepreneursand the Power of New Ideas (Book). *Chronicle of Philanthropy, 16*(17), 40.
Bornstein, D. (2007). *How to change the world: Social entrepreneurs and the power of new ideas*: Oxford University Press, 368.

Borzaga, C., Loss, M., & Nyssens, M. (2006). Profiles and trajectories of workers in work integration social enterprises. *Social Enterprise–at the crossroads of market, public policies and civil society, Routledge, London*, 169-194.
Boschee. (1998). *Merging mission and money: A board member's guide to social entrepreneurship*: National Center for Nonprofit Boards Washington, 22.
Boschee, J. (2001). Eight basic principles for nonprofit entrepreneurs. Nonprofit World, 19(4), 15-18.
Boschee, & McClurg. (2003). *Toward a Better Understanding of Social Entrepreneurship: Some Important Distinctions, social enterprise alliance*. www.caledonia.org.uk, 7. Download unter: http://www.se-alliance.org/better_understanding.pdf.
Braun, M. T., Kuljanin, G., & DeShon, R. P. (2013). Spurious results in the analysis of longitudinal data in organizational research. Organizational Research Methods, 16(2), 302-330.
Brown, L. D., & Ashman, D. (1996). Participation, social capital, and intersectoral problem solving: African and Asian cases. *World development*, *24*(9), 1467-1479.
Bruton, G. D., Ketchen, D. J., & Ireland, R. D. (2013). Entrepreneurship as a solution to poverty. *Journal of Business Venturing*, *28*(6), 683-689.
Bubnicki, Z. (2005). Modern control theory. Springer Science & Business Media.
Bull, I., & Winter, F. (1991). Community differences in business births and business growths. *Journal of Business Venturing*, *6*(1), 29-43.
Bull, M., & Crompton, H. (2006). Business practices in social enterprises. *Social Enterprise Journal*, *2*(1), 42-60.
Bull, M. (2008). Challenging tensions: critical, theoretical and empirical perspectives on social enterprise. International Journal of Entrepreneurial Behavior & Research, 14(5), 268-275.
Burnett, K. (1992). Relationship fundraising. *A Donor-Based Approach to the Business of Raising Money, Jossey-Bass Publications, London*, 384.
Burns, P., & Gimpel, J. G. (2000). Economic insecurity, prejudicial stereotypes, and public opinion on immigration policy. *Political Science Quarterly*, *115*(2), 201-225.
Callison, J. W., & Vestal, A. (2010). The L3C Illusion: Why Low-Profit Limited Liability Companies Will Not Stimulate Socially Optimal Private Foundation Investment in Entrepreneurial Ventures. *Drake University Law School Research Paper*(11-07), 273.
Carman, J. G. (2008). Nonprofits, funders, and evaluation: Accountability in action. *The American Review of Public Administration*, 39(4), 374-390.
Carroll, G. R., & Hannan, M. T. (1989). Density dependence in the evolution of populations of newspaper organizations. *American sociological review*, 54(4), 524-541.
Carroll, D. A., & Stater, K. J. (2009). Revenue diversification in nonprofit organizations: Does it lead to financial stability?. Journal of Public Administration Research and Theory, 19(4), 947-966.
Casciaro, T., & Piskorski, M. J. (2005). Power imbalance, mutual dependence, and constraint absorption: A closer look at resource dependence theory. Administrative science quarterly, 50(2), 167-199.
Chang, Chrisman, J. J., Chua, J. H., & Kellermanns, F. W. (2008). Regional Economy as a Determinant of the Prevalence of Family Firms in the United States: A Preliminary Report. *Entrepreneurship: Theory & Practice*, *32*(3), 559-573.
Chang, Okunade, A. A., & Kumar, N. (1999). Motives Behind Charitable Bequests. *Journal of Nonprofit & Public Sector Marketing*, *6*(4), 69-85.

Chapman, T., Forbes, D., & Brown, J. (2007). "They have God on their side": the impact of public sector attitudes on the development of social enterprise. *Social Enterprise Journal, 3*(1), 78-89.
Chatelain, J. B., & Ralf, K. (2014). Spurious regressions and near-multicollinearity, with an application to aid, policies and growth. *Journal of Macroeconomics, 39*, 85-96.
Choi, N., & Majumdar, S. (2014). Social entrepreneurship as an essentially contested concept: Opening a new avenue for systematic future research. *Journal of Business Venturing, 29*(3), 363-376.
Child, C. D., & Grønbjerg, K. A. (2007). Nonprofit Advocacy Organizations: Their Characteristics and Activities. Social Science Quarterly, 88(1), 259-281.
Clark Jr, W. H., & Babson, E. K. (2011). How Benefit Corporations are redefining the purpose of business corporations. *Wm. Mitchell L. Rev., 38*, 817.
Clark, W. (2012). Introducing Strategic Thinking into a Non-profit Organization to Develop Alternative Income Streams. *Journal of Practical Consulting, 4*(1), 32-42.
Clary, E. G., & Snyder, M. (1995). Motivations for volunteering and giving: A functional approach. *New directions for philanthropic fundraising*, 8, 111-123.
Clotfelter, C. T., & Ehrlich, T. (2001). *Philanthropy and the Nonprofit Sector in a Changing America*: Indiana University Press, 544.
Coase, R. H. (1988). Notes on the problem of social cost. *The Firm, the Market, and the Law, 157*.
Cook, B., Dodds, C., & Mitchell, W. (2003). Social entrepreneurship: false premises and dangerous forebodings, Center of Full Employment and Equity, The University of Newcastle, 20.
Cook, R. D., & Weisberg, S. (1982). *Residuals and influence in regression*, Chapman and Hall, 240.
Cooney, K. (2012). Mission control: examining the institutionalization of new legal forms of social enterprise in different strategic action fields. *Social Enterprises: An Organizational Perspective, New York: Palgrave-Macmillan*, 198-221.
Cooney, K. (2013). Examining the labor market presence of US WISEs. *Social Enterprise Journal, 9*(2), 147-163.
Corbin, J. J. (1999). A study of factors influencing the growth of nonprofits in social services. *Nonprofit and voluntary sector quarterly, 28*(3), 296-314.
Craney, T. A., & Surles, J. G. (2002). Model-dependent variance inflation factor cutoff values. Quality Engineering, 14(3), 391-403.
Cucina, J. M., & Vasilopoulos, N. L. (2005). Nonlinear personality–performance relationships and the spurious moderating effects of traitedness. Journal of Personality, 73(1), 227-260.
Cumming, D., & Johan, S. (2010). The differential impact of the internet on spurring regional entrepreneurship. *Entrepreneurship Theory and Practice, 34*(5), 857-883.
Czerwinski, S. J. (2007). *Nonprofit Sector: Increasing Numbers and Key Role in Delivering Federal Services*, Diane Publishing (GAO-07-1084T), 19.
Dart, R. (2004). The Legitimacy of Social Enterprise. *Nonprofit Management and Leadership, 14*(4), 411-424.
Dart, R., Clow, E., & Armstrong, A. (2010). Meaningful difficulties in the mapping of social enterprises. Social Enterprise Journal, 6(3), 186-193.

Davidsson, P., & Delmar, F. (2006). *High-growth firms and their contribution to employment: The case of Sweden 1987–96*. Entrepreneurship and the Growth of Firms. Cheltenham: Elgar, 156-178.
Davidsson, P., & Wiklund, J. (2001). Levels of analysis in entrepreneurship research: Current research practice and suggestions for the future. *Entrepreneurship Theory and Practice, 25*(4), 81-100.
Davis, L. N. (1997). *The NGO-Business Hybrid: Is the Private Sector the Answer?* : Johns Hopkins University, Paul H. Nitze School of Advanced International Studies, 132.
Dee, J. R., & Henkin, A. B. (1997). Communication and donor relations: A social skills perspective. *Nonprofit Management and Leadership, 8*(2), 107-119.
Dees. (1998a). Enterprising Non-Profits. *Harvard Business Review, 76*(1), 54-67.
Dees. (1998b). The meaning of social entrepreneurship, *Kaufmann Center for Entrepreneurial Leadership, Kauffman Foundation, 5*.
Dees. (2007). Taking Social Entrepreneurship Seriously. *Society, 44*(3), 24-31.
Dees, Emerson, J., & Economy, P. (2002). *Enterprising nonprofits: A toolkit for social entrepreneurs* (Vol. 186): John Wiley & Sons, 352.
Defourny, J., & Nyssens, M. (2010). Conceptions of social enterprise and social entrepreneurship in Europe and the United States: convergences and divergences. *Journal of social entrepreneurship, 1*(1), 32-53.
DeNavas-Walt, C., Proctor, B. D., & Smith, J. (2009). Income, poverty, and health insurance coverage in the United States: 2003. Washington (DC): US Census Bureau; 2004. Population Reports, 60-226.
Desa, G. (2012). Resource mobilization in international social entrepreneurship: Bricolage as a mechanism of institutional transformation. *Entrepreneurship Theory and Practice, 36*(4), 727-751.
Desa, G., & Basu, S. (2013). Optimization or bricolage? Overcoming resource constraints in global social entrepreneurship. *Strategic Entrepreneurship Journal, 7*(1), 26-49.
Di Domenico, M., Haugh, H., & Tracey, P. (2010). Social Bricolage: Theorizing Social Value Creation in Social Enterprises. *Entrepreneurship: Theory & Practice, 34*(4), 681-703.
Di Domenico, M., Tracey, P., & Haugh, H. (2009). The dialectic of social exchange: Theorizing corporate-social enterprise collaboration. *Organization Studies, 30*(8), 887-907.
Doherty, B., Haugh, H., & Lyon, F. (2014). Social Enterprises as Hybrid Organizations: A Review and Research Agenda. *International Journal of Management Reviews, 16*(4), 417-436.
Donovan, F., & Jackson, A. C. (1991). Managing human service organisations. Prentice Hall.
Dorado, S. (2006). Social Entrepreneurial Ventures: Different Values to Different Process of Creation, No? . *Journal of Developmental Entrepreneurship, 11*(4), 319-343.
Dorado, S., & Ventresca, M. J. (2013). Crescive entrepreneurship in complex social problems: Institutional conditions for entrepreneurial engagement. *Journal of Business Venturing, 28*(1), 69-82.
Drayton, W. (2002). The Citizen Sector: Becoming as Entrepreneurial and Competitive as Business. *California Management Review, 44*(3), 120-132.
Easterly, W., Ritzen, J., & Woolcock, M. (2006). Social cohesion, institutions, and growth. *Economics & Politics, 18*(2), 103-120.
Eikenberry, A. M., & Kluver, J. D. (2004). The Marketization of the Nonprofit Sector: Civil Society at Risk? *Public Administration Review, 64*(2), 132-140.

Emerson, J. (2003). The Blended Value Proposition: Integrating Social and Financial Returns. *California Management Review, 45*(4), 35-51.
Emerson, J., & Twersky, F. (Eds.). (1996). New social entrepreneurs: The success, challenge and lessons of non-profit enterprise creation. *The Homeless Economic Fund, the Roberts Foundation*.
Enright, M. J. (2000). The globalization of competition and the localization of competitive advantage: policies toward regional clustering. In *The globalization of multinational enterprise activity and economic development* (pp. 303-331). Palgrave Macmillan UK.
Enright, M. J. (2000). Regional clusters and multinational enterprises: independence, dependence, or interdependence? *International Studies of Management & Organization*, 114-138.
Estrin, S., Mickiewicz, T., & Stephan, U. (2013). Entrepreneurship, social capital, and institutions: Social and commercial entrepreneurship across nations. *Entrepreneurship Theory and Practice, 37*(3), 479-504.
Ewing, R. L., Govekar, M. A., Govekar, P. L., & Rishi, M. (2002). Economics, market segmentation and recruiting: Targeting your promotion to volunteers' needs. *Journal of Nonprofit & Public Sector Marketing, 10*(1), 61-76.
Fan, J., & Gijbels, I. (1996). Local polynomial modelling and its applications: monographs on statistics and applied probability 66 (Vol. 66). CRC Press, 360.
Feser, E. J. (1998). Old and new theories of industry clusters. *Clusters and Regional Specialization: On Geography, Technology, and Networks*, 8, 18-40.
Fisher, R. A. (1958). *The genetical theory of natural selection*. Oxford University Press, 318.
Florida, R. (2002a). The economic geography of talent. *Annals of the Association of American geographers, 92*(4), 743-755.
Florida, R. (2002b). The rise of the creative class. *The Washington Monthly, 34*(5), 15-25.
Folta, T. B., Cooper, A. C., & Baik, Y.-s. (2006). Geographic cluster size and firm performance. *Journal of Business Venturing, 21*(2), 217-242.
Foster, W., & Bradach, J. (2005). Should nonprofit seek profits. *Harvard business review, 83*(2), 92-100.
Freedman, M. L., & Kosová, R. (2012). Agglomeration, product heterogeneity and firm entry. *Journal of Economic Geography, 12*(3), 601-626.
Froelich, K. A. (1999). Diversification of revenue strategies: Evolving resource dependence in nonprofit organizations. *Nonprofit and voluntary sector quarterly, 28*(3), 246-268.
Frumkin, P., & Kim, M. T. (2001). Strategic positioning and the financing of nonprofit organizations: Is efficiency rewarded in the contributions marketplace?. Public administration review, 61(3), 266-275.
Galaskiewicz, J., Bielefeld, W., & Dowell, M. (2006). Networks and organizational growth: A study of community based nonprofits. *Administrative science quarterly, 51*(3), 337-380.
Galbraith, C., & De Noble, A. (1988). Location decisions by high technology firms: a comparison of firm size, industry type and institutional form. *Entrepreneurship Theory and Practice, 13*(2), 31-48.
Gamm, G., & Putnam, R. D. (1999). The growth of voluntary associations in America, 1840–1940. *Journal of Interdisciplinary History, 29*(4), 511-557.
Gardin, L. (2006). A variety of resource mixes inside social enterprises. *Social Enterprise: At the crossroads of market, public policies and civil society*, 111-136.

Garrow, E. E. (2011). Receipt of Government Revenue among Nonprofit Human Service Organizations. *Journal of Public Administration Research & Theory, 21*(3), 445-471.
Gawell, M. (2013). Social entrepreneurship-innovative challengers or adjustable followers? *Social Enterprise Journal, 9*(2), 203-220.
Gilbert, B. A., McDougall, P. P., & Audretsch, D. B. (2008). Clusters, knowledge spillovers and new venture performance: An empirical examination. *Journal of Business Venturing, 23*(4), 405-422.
Goerke, J. (2003). Taking the quantum leap: Nonprofits are now in business. An Australian perspective. *International Journal of Nonprofit and Voluntary Sector Marketing*, 8(4), 317-327.
Granados, M. L., Hlupic, V., Coakes, E., & Mohamed, S. (2011). Social enterprise and social entrepreneurship research and theory: A bibliometric analysis from 1991 to 2010. *Social Enterprise Journal*, 7(3), 198-218.
Gras, D., & Mendoza-Abarca, K. I. (2014). Risky business? The survival implications of exploiting commercial opportunities by nonprofits. *Journal of Business Venturing, 29*(3), 392-404.
Greenlee, J. S., & Trussel, J. M. (2000). Predicting the financial vulnerability of charitable organizations. *Nonprofit Management and Leadership*, 11(2), 199-210
Gronbjerg, K. A. (1991). How nonprofit human service organizations manage their funding sources: key findings and policy implications. *Nonprofit Management and Leadership, 2*(2), 159-175.
Grønbjerg, K. A., & Paarlberg, L. (2001). Community variations in the size and scope of the nonprofit sector: Theory and preliminary findings. *Nonprofit and voluntary sector quarterly, 30*(4), 684-706.
Gronbjerg, K. A., & Salamon, L. M. (2002). Devolution, marketization, and the changing shape of government-nonprofit relations. *The state of nonprofit America*, 447-470.
Grusky, D. B., Western, B., & Wimer, C. C. (2011). *The Great Recession*: Russell Sage Foundation.
Guo, C. (2007). When government becomes the principal philanthropist: The effects of public funding on patterns of nonprofit governance. *Public Administration Review, 67*(3), 458-473.
Hainsworth, V. (2014). *A quasi-experiment to examine whether social enterprise improves sustainability of nonprofit social service agencies.* (3580267 Ph.D.), Adelphi University, School of Social Work, Ann Arbor.
Hair Jr, J. F., Anderson, R. E., Tatham, R. L., & Black, W. C. (1995). Multiple discriminant analysis. Multivariate data analysis, 178-256.
Hannan, M. T., & Freeman, J. (1977). The population ecology of organizations. *American journal of sociology*, 929-964.
Hannan, M. T., & Freeman, J. (1984). Structural inertia and organizational change. *American sociological review*, 149-164.
Hannan, M. T., & Freeman, J. (1989). Organizational Ecology. *Harvard, Cambridge, MA*.
Hannan, M. T., & Freeman, J. (1993). Organizational ecology. *Harvard University Press*.
Harding, R. (2004). Social enterprise: the new economic engine? *Business Strategy Review, 15*(4), 39-43.
Hartigan, P. (2006). It's about people, not profits. *Business Strategy Review, 17*(4), 42-45.

Hasenfeld, Y. (1992). Theoretical approaches to human service organizations. *Human services as complex organizations*, 24-44.
Hastie, T., Tibshirani, R., & Friedman, J. (2009). Linear methods for regression. In *The Elements of Statistical Learning* (pp. 43-99). Springer New York.
Haugh, H. (2005). A research agenda for social entrepreneurship. *Social Enterprise Journal, 1*(1), 1-12.
Haugh, H. (2006). Social enterprise: beyond economic outcomes and individual returns. *Social entrepreneurship*, 180-205.
Haugh, H. (2007). Community-led social venture creation. *Entrepreneurship Theory and Practice, 31*(2), 161-182.
Haugh, H. (2012). The importance of theory in social enterprise research. *Social Enterprise Journal, 8*(1), 7-15.
Häussler, C., & Zademach, H.-M. (1996). Cluster performance reconsidered: Structure, linkages and paths in the German biotechnology industry, 1996-2003. *Linkages and Paths in the German Biotechnology Industry, 2003*.
Havens, J. J., O'Herlihy, M. A., & Schervish, P. G. (2006). Charitable giving: How much, by whom, to what, and how. *The nonprofit sector: A research handbook, 2*, 542-567.
Hillman, A. J., Withers, M. C., & Collins, B. J. (2009). Resource dependence theory: A review. *Journal of management*, 35, 1404-1427.
Ho, K. W., & Tan, R. (2008). Nonmonotonic relationship between human capital and unemployment: an exploratory study with empirical evidence on Singapore. *Applied Economics Letters, 15*(15), 1177-1185.
Hockerts, K. (2006). Entrepreneurial opportunity in social purpose business ventures. *Social entrepreneurship, 1*, 142-154.
Hodgkinson, V. A., & Toppe, C. (1991). A new research and planning tool for managers: The national taxonomy of exempt entities. *Nonprofit Management and Leadership*, 1(4), 403-414.
Hynes, B. (2009). Growing the social enterprise-issues and challenges. *Social Enterprise Journal, 5*(2), 114-125.
IRS (2014). Applying for 501(c)(3) Tax-Exempt Status. Department of Treasury, Publication 4220 (Rev. 7-2014), 37053T. https://www.irs.gov/pub/irs-pdf/p4220.pdf
Janssen, O. (2001). Fairness perceptions as a moderator in the curvilinear relationships between job demands, and job performance and job satisfaction. *Academy of management journal*, 44(5), 1039-1050.
Jiao, H. (2011). A conceptual model for social entrepreneurship directed toward social impact on society. *Social Enterprise Journal, 7*(2), 130-149.
Joassart-Marcelli, P., & Wolch, J. R. (2003). The intrametropolitan geography of poverty and the nonprofit sector in Southern California. *Nonprofit and voluntary sector quarterly, 32*(1), 70-96.
Jonghoon, B., Wezel, F. C., & Jun, K. (2011). Cross-cutting Ties, Organizational Density, and New Firm Formation in the U.S. Biotech Industry, 1994-98. *Academy of Management Journal, 54*(2), 295-311.
Kaiser, H. F. (1960). The application of electronic computers to factor analysis. *Educational and psychological measurement, 20*, 141-151.
Kalugyer, A. D. (2014). Giving USA: Americans Gave $335.17 Billion to Charity in 2013. *School of Philanthropy News*. Retrieved from www.philanthropy.iupui.edu

Kapur, K., & Weisbrod, B. A. (2000). The roles of government and nonprofit suppliers in mixed industries. *Public Finance Review*, 28(4), 275-308.
Katre, A., & Salipante, P. (2012). Start-Up Social Ventures: Blending Fine-Grained Behaviors From Two Institutions for Entrepreneurial Success. *Entrepreneurship: Theory & Practice, 36*(5), 967-994.
Kennedy, B. P., Kawachi, I., & Prothrow-Stith, D. (1996). Income distribution and mortality: cross sectional ecological study of the Robin Hood index in the United States. Bmj, 312(7037), 1004-1007.
Kerlin, J. A. (2006). Social enterprise in the United States and Europe: Understanding and learning from the differences. *Voluntas: International Journal of Voluntary and Nonprofit Organizations, 17*(3), 246-262.
Kil, H. J. (2012). *The Geographical Distribution of Nonprofit Human Service Organizations and Neighborhood Characteristics.* UCLA Theses and Dissertations, University of California, Los Angeles.
Kim, P. H., Aldrich, H. E., & Keister, L. A. (2006). Access (not) denied: The impact of financial, human, and cultural capital on entrepreneurial entryin the United States. *Small business economics, 27*(1), 5-22.
Kirchhoff, B., & Acs, Z. J. (2000). Births and deaths of new firms. *Entrepreneurship, 2000*, 167-188.
Kirchhoff, B. A., & Phillips, B. D. (1988). The effect of firm formation and growth on job creation in the United States. *Journal of Business Venturing, 3*(4), 261-272.
Ko, S. (2012). Viability of social enterprises: the spillover effect. *Social Enterprise Journal, 8*(3), 251-263.
Krugman, P. R. (1991). *Geography and trade*: MIT press.
Kucher, J. H. (2014). *A comparative examination of the revenue structure of social enterprises and traditional nonprofits in Maryland.* (3614140 D.P.A.), University of Baltimore, Ann Arbor.
Labaree, D. (2010). Teach for America and teacher ed: Heads they win, tails we lose. *Journal of Teacher Education, 61*(1-2), 48-55.
Lagace, M. (2002). Profits for Nonprofits: Earning Your Own Way. *Harvard Business School Working Knowledge*. Retrieved from hbswk.hbs.edu
Lampkin, L. M., & Boris, E. T. (2002). Nonprofit organization data what we have and what we need. American Behavioral Scientist, 45(11), 1675-1715.
Lampkin, L., Romeo, S., & Finnin, E. (2001). Introducing the nonprofit program classification system: The taxonomy we've been waiting for. *Nonprofit and voluntary sector quarterly*, 30(4), 781-793
Lasprogata, G. A., & Cotten, M. N. (2003). Contemplating "enterprise": The business and legal challenges of social entrepreneurship. *American Business Law Journal, 41*(1), 67-114.
Le, H., Oh, I. S., Robbins, S. B., Ilies, R., Holland, E., & Westrick, P. (2011). Too much of a good thing: curvilinear relationships between personality traits and job performance. *Journal of Applied Psychology*, 96(1), 113.
Leadbeater, C. (1997). *The Rise of the Social Entrepreneur*, Demos Papers, Demos, 115.
Lecocq, C., Leten, B., Kusters, J., & Van Looy, B. (2012). Do firms benefit from being present in multiple technology clusters? An assessment of the technological performance of biopharmaceutical firms. *Regional Studies*, 46(9), 1107-1119.

Lecy, J. D., & Van Slyke, D. M. (2013). Nonprofit Sector Growth and Density: Testing Theories of Government Support. *Journal of Public Administration Research & Theory, 23*(1), 189-214.
Lee, J. (2001). Entrepreneurship and business development among African Americans, Koreans, and Jews: Exploring some structural differences. *Migration, transnationalization, and race in a changing New York*, 258-278.
Lee, J., Wolch, J., & Walsh, J. (1998). 'Homeless Health and Service Needs. *Putting health into place: Landscape, identity, and well-being*, 120.
Lee, S. Y., Florida, R., & Acs, Z. (2004). Creativity and entrepreneurship: a regional analysis of new firm formation. *Regional Studies, 38*(8), 879-891.
Letki, N. (2008). Does diversity erode social cohesion? Social capital and race in British neighbourhoods. *Political Studies, 56*(1), 99-126.
Li, J., & Geng, S. (2012). Industrial clusters, shared resources and firm performance. *Entrepreneurship & Regional Development, 24*(5-6), 357-381.
Light, P. C. (2006). Reshaping social entrepreneurship. *Stanford Social Innovation Review, 4*(3), 47-51.
Little, R. J. (1992). Regression with missing X's: a review. Journal of the American Statistical Association, 87(420), 1227-1237.
Little, R. J., & Rubin, D. B. (2014). *Statistical analysis with missing data*. John Wiley & Sons, 408.
Lomi, A., Larsen, E. R., & Freeman, J. H. (2005). Things change: dynamic resource constraints and system-dependent selection in the evolution of organizational populations. *Management Science, 51*(6), 882-903.
Lowry, S. (2014). Itemized Tax Deductions for Individuals: Data Analysis. In *CRS Report for Congress*, Congressional Research Service (R43012), 11.
Lynn Jr, L. E. (2002). Social services and the state: The public appropriation of private charity. *Social Service Review, 76*(1), 58-82.
Lyon, F., & Ramsden, M. (2006). Developing fledgling social enterprises? A study of the support required and means of delivering it. *Social Enterprise Journal, 2*(1), 27-41.
Luke, D. A. (2004). Multilevel modeling, *Quantitative Applications in the Social Sciences* (Vol. 143), 88. Sage Publication.
Macedo, I. M., & Pinho, J. C. (2006). The relationship between resource dependence and market orientation: The specific case of non-profit organisations. *European Journal of Marketing, 40*(5/6), 533-553.
MacIndoe, H., & Whalen, R. (2013). Specialists, generalists, and policy advocacy by charitable nonprofit organizations. *J. Soc. & Soc. Welfare*, 40, 119.
Mair, & Marti. (2006). Social Entrepreneurship Research: A Source of Explanation, Prediction, and Delight. *Journal of World Business, 41*(1), 36-44.
Marlar, L. A. (2014). *Perceived critical issues for future sustainability in Tulsa, Oklahoma nonprofits: A Delphi study.* (3641401 Ph.D.), Oklahoma State University, Ann Arbor.
Marsh, H. W. (1998). Pairwise deletion for missing data in structural equation models: Nonpositive definite matrices, parameter estimates, goodness of fit, and adjusted sample sizes. *Structural Equation Modeling: A Multidisciplinary Journal*, 5(1), 22-36.
Marshall, A. (1920). *Principles of economics: An introductory volumen*: Macmillan and Company.

McBrearty, S. (2007). Social enterprise: a solution for the voluntary sector? *Social Enterprise Journal, 3*(1), 67-77.
McCann, B. T., & Folta, T. B. (2011). Performance differentials within geographic clusters. *Journal of Business Venturing, 26*(1), 104-123.
McDougle, L. M. (2015). The accuracy of the core files for studying nonprofit location how many nonprofits are there? *Nonprofit and Voluntary Sector Quarterly*, 44(3), 609-624.
McKeever, & Pettijohn, S. L. (2014). The Nonprofit Sector in Brief 2014 Public Charities, Giving and Volunteering. *The Nonprofit Sector in Brief*, 17.
McKeever, E., Jack, S., & Anderson, A. (2015). Embedded entrepreneurship in the creative re-construction of place. *Journal of Business Venturing, 30*(1), 50-65.
McNeil, J. M. (1998). Changes in median household income: 1969 to 1996. US Department of Commerce, Economics and Statistics Administration, Bureau of the Census.
Meyskens, M., Robb-Post, C., Stamp, J. A., Carsrud, A. L., & Reynolds, P. D. (2010). Social Ventures from a Resource-Based Perspective: An Exploratory Study Assessing Global Ashoka Fellows. *Entrepreneurship Theory and Practice, 34*(4), 661-680.
Miller, S., & Eden, L. (2006). Local density and foreign subsidiary performance. *Academy of Management Journal, 49*(2), 341-355.
Möller, J. (1990). Unemployment and deterioration of human capital. *Empirical Economics, 15*(2), 199-215.
Moore, G., Sobieraj, S., Whitt, J. A., Mayorova, O., & Beaulieu, D. (2002). Elite interlocks in three US sectors: Nonprofit, corporate, and government. *Social Science Quarterly, 83*(3), 726-744.
Moreau, C., & Mertens, S. (2013). Managers' competences in social enterprises: which specificities? *Social Enterprise Journal, 9*(2), 164-183.
Murphy, P. J., & Coombes, S. M. (2009). A model of social entrepreneurial discovery. *Journal of business ethics, 87*(3), 325-336.
Murray, J. (2012). Choose Your Own Master: Social Enterprise, Certifications and Benefit Corporation Statutes. *Social Enterprise, Certifications and Benefit Corporation Statutes (June 15, 2012), 2*.
NCCS (2007). *National Taxonomy of Exempt Entities - Core Codes*. National Center for Charitable Statistics Publications, Washington DC.
Nicholls, A. (2006). *Social entrepreneurship: New models of sustainable social change*: Oxford University Press.
Norris-Tirrell, D. (2014). The Changing Role of Private, Nonprofit Organizations in the Development and Delivery of Human Services in the United States. *Journal of Health and Human Services Administration*, 37(3), 304.
O'Brien, R. M. (2007). A caution regarding rules of thumb for variance inflation factors. *Quality & Quantity, 41*(5), 673-690.
O'Neill, M. (2002). *Nonprofit nation: A new look at the third America*: John Wiley & Sons.
O'Shaughnessy, M. (2008). Statutory support and the implications for the employee profile of rural based Irish work integration social enterprises (WISEs). *Social Enterprise Journal, 4*(2), 126-135.
O'Shaughnessy, M., Casey, E., & Enright, P. (2011). Rural transport in peripheral rural areas: The role of social enterprises in meeting the needs of rural citizens. *Social Enterprise Journal, 7*(2), 183-190.

Ostrower, F. (1997). *Why the wealthy give: The culture of elite philanthropy*: Princeton University Press.
Ottaviano, G. I., & Peri, G. (2006). The economic value of cultural diversity: evidence from US cities. *Journal of Economic Geography, 6*(1), 9-44.
Pache, A.-C., & Chowdhury, I. (2012). Social Entrepreneurs as Institutionally Embedded Entrepreneurs: Toward a New Model of Social Entrepreneurship Education. *Academy of Management Learning & Education, 11*(3), 494-510.
Pan, Y., & Jackson, R. T. (2008). Ethnic difference in the relationship between acute inflammation and serum ferritin in US adult males. *Epidemiology and infection*, 136(03), 421-431.
Park, S., & Kim, S. (2014). Diffusion of Nonprofit Organizations from an Internal and an External Perspective. *Journal of Management & Public Policy, 5*(2).
Partridge, M. D., & Rickman, D. S. (1997). The dispersion of US state unemployment rates: the role of market and non-market equilibrium factors. *Regional Studies, 31*(6), 593-606.
Peck, L. R. (2008). Do antipoverty nonprofits locate where people need them? Evidence from a spatial analysis of Phoenix. *Nonprofit and Voluntary Sector Quarterly*, 37(1), 138-151.
Pe'er, A., & Keil, T. (2013). Are all startups affected similarly by clusters? Agglomeration, competition, firm heterogeneity, and survival. *Journal of Business Venturing*, *28*(3), 354-372.
Pearce, J., & Kay, A. (2003). *Social enterprise in anytown*: Calouste Gulbenkian Foundation.
Peattie, K., & Morley, A. (2008). Eight Paradoxes of the Social Enterprise Research Agenda. *Social Enterprise Journal, 4*(2), 91-107.
Peli, G. (2009). Fit by founding, fit by adaptation: Reconciling conflicting organization theories with logical formalization. *Academy of Management Review, 34*(2), 343-360.
Peredo, A. M., & Chrisman, J. J. (2006). Toward a theory of community-based enterprise. *Academy of Management Review*, *31*(2), 309-328.
Petersen, T., & Koput, K. W. (1991). Density dependence in organizational mortality: Legitimacy or unobserved heterogeneity? *American sociological review*, 399-409.
Pfeffer, J., & Salancik, G. (1978). *The external control of organizations: A resource dependence approach*. Harper and Row Publishers, New York.
Phan, D. D., & Stata, N. (2002). E-business success at Intel: an organization ecology and resource dependence perspective. *Industrial Management & Data Systems, 102*(4), 211-217.
Pinch, S., Henry, N., Jenkins, M., & Tallman, S. (2003). From 'industrial districts' to 'knowledge clusters': a model of knowledge dissemination and competitive advantage in industrial agglomerations. *Journal of Economic Geography, 3*(4), 373-388.
Porter, M. E. (1998). Cluster and the new economics of competition, *Harvard Business Review*, November-December.
Porter, M. E. (2001). *Clusters of innovation: Regional foundations of US competitiveness*: Council on Competitiveness.
Pouder, R., & John, C. H. S. (1996). Hot spots and blind spots: geographical clusters of firms and innovation. *Academy of Management Review*, *21*(4), 1192-1225.
Prevezer, M. (1997). The dynamics of industrial clustering in biotechnology. *Small business economics, 9*(3), 255-271.
Prince, R. A., File, K. M., & Gillespie, J. E. (1993). Philanthropic styles. *Nonprofit Management and Leadership, 3*(3), 255-268.

Putnam, R. D. (2007). E pluribus unum: Diversity and community in the twenty-first century the 2006 Johan Skytte Prize Lecture. *Scandinavian political studies, 30*(2), 137-174.
Quarter, J. (1992). *Canada's Social Economy: Co-opeartives, Non-profits, and Other Community Enterprises*: James Lorimer & Company.
Ram, M., Jones, T., Abbas, T., & Sanghera, B. (2002). Ethnic Minority Enterprise in its Urban Context: South Asian Restuarants in Birmingham. *International journal of urban and regional research, 26*(1), 24-40.
Ramcharan, R. (2006). Regressions: Why Are Economists Obsessed with Them? *Finance and Development*, 43, 1.
Ramia, G., & Carney, T. (2003). New public management, the job network and non-profit strategy. *Australian Journal of Labour Economics, 6*(2), 253.
Renko, M. (2013). Early Challenges of Nascent Social Entrepreneurs. *Entrepreneurship: Theory & Practice, 37*(5), 1045-1069.
Reynolds, P., Storey, D. J., & Westhead, P. (1994). Cross-national comparisons of the variation in new firm formation rates. *Regional Studies, 28*(4), 443-456.
Reilly, J. F., Hull, C. C., & Allen, B. A. B. (2003). IRC 501 (c)(4) Organizations. Exempt Organizations–Technical Instruction Program for FY 2003.
Rich, M. J. (1989). Distributive Politics and the Allocation of Federal Grants. *American Political Science Review, 83*(01), 193-213.
Robinson, J. (2006). Navigating social and institutional barriers to markets: How social entrepreneurs identify and evaluate opportunities. *Social entrepreneurship*, 95-120.
Roeger, K. L., Blackwood, A. S., & Pettijohn, S. L. (2011). *The Nonprofit Almanac 2011*: Urban Institute Press.
Roeger, K. L., Blackwood, A. S., & Pettijohn, S. L. (2012). *The Nonprofit Almanac 2012*: Urban Institute Press.
Rogerson, P. (2001). *Statistical methods for geography*. Sage Publication.
Saidel, J. R. (1991). Resource interdependence: The relationship between state agencies and nonprofit organizations. *Public Administration Review*, 543-553.
Salamon, L. M. (1987). Of market failure, voluntary failure, and third-party government: Toward a theory of government-nonprofit relations in the modern welfare state. *Nonprofit and voluntary sector quarterly, 16*(1-2), 29-49.
Salamon, L. M. (1992). *America's nonprofit sector: A primer*: Foundation Center, New York.
Salamon, L. M. (1995). *Partners In Public Service: Government-Nonprofit Relations In The Modern Welfare State*, John Hopkins University Press, 328.
Salamon, L. M. (2012). *The state of nonprofit America.* Brookings Institution Press.
Salamon, L. M., & Anheier, H. K. (1992). In search of the non-profit sector II: The problem of classification. *Voluntas: International Journal of Voluntary and Nonprofit Organizations*, 3(3), 267-309
Salamon, L. M., & Anheier, H. K. (1998). Social origins of civil society: Explaining the nonprofit sector cross-nationally. *Voluntas: International Journal of Voluntary and Nonprofit Organizations, 9*(3), 213-248.
Sampson, R. J., & Groves, W. B. (1989). Community structure and crime: Testing social-disorganization theory. *American journal of sociology*, 774-802.
Samuel, O., Wolf, P., & Schilling, A. (2013). Corporate volunteering: Benefits and challenges for nonprofits. *Nonprofit Management and Leadership,* 24(2), 163-179.

Sarpong, D., & Davies, C. (2014). Managerial organizing practices and legitimacy seeking in social enterprises. *Social Enterprise Journal, 10*(1), 21-37.
Saxenian, A. (1996). *Regional advantage*: Harvard University Press.
Saxenian, A. (1999). *Silicon Valley's new immigrant entrepreneurs* (Vol. 32): Public Policy Institute of California San Francisco.
Saxton, G. D., & Benson, M. A. (2005). Social capital and the growth of the nonprofit sector*. *Social Science Quarterly, 86*(1), 16-35.
Schervish, P. G., & Havens, J. J. (1998). Money and magnanimity: New findings on the distribution of income, wealth, and philanthropy. *Nonprofit Management and Leadership, 8*(4), 421-434.
Schervish, P. G., & Havens, J. J. (2001). Wealth and the commonwealth: New findings on wherewithal and philanthropy. *Nonprofit and voluntary sector quarterly, 30*(1), 5-25.
Schmid, H. (2002). Relationships between organizational properties and organizational effectiveness in three types of nonprofit human service organizations. *Public Personnel Management*, 31(3), 377-395.
Schmitt, N., Klimoski, R. J., Ferris, G. R., & Rowland, K. M. (1991). *Research methods in human resources management.* South-Western Publications.
Schmitz, H., & Nadvi, K. (1999). Clustering and industrialization: introduction. *World development, 27*(9), 1503-1514.
Seanor, P., & Meaton, J. (2007). Making sense of social enterprise. *Social Enterprise Journal, 3*(1), 90-100.
Seo, J. (2011). *Resource Dependence Patterns and Organizational Performance in Nonprofit Organizations.* Arizona State University.
Shapiro, R. (2012). *The Real Problem Solvers: Social Entrepreneurs in America*: Stanford University Press.
Sharir, M., & Lerner, M. (2006). Gauging the Success of Social Ventures Initiated by Individual Social Entrepreneurs. *Journal of World Business, 41*(1), 6-20.
Sheth, J., & Sisodia, R. (2002). *The rule of three: Surviving and thriving in competitive markets*: Simon and Schuster.
Short, J. C., Moss, T. W., & Lumpkin, G. T. (2009). Research in social entrepreneurship: Past contributions and future opportunities. *Strategic Entrepreneurship Journal, 3*(2), 161-194.
Sine, W. D., Mitsuhashi, H., & Kirsch, D. A. (2006). Revisiting Burns and Stalker: Formal structure and new venture performance in emerging economic sectors. *Academy of Management Journal*, 49(1), 121-132.
Singer, J. D., & Willett, J. B. (2003). *Applied longitudinal data analysis: Modeling change and event occurrence*. Oxford university press.
Skocpol, T., Ganz, M., & Munson, Z. (2000). A nation of organizers: The institutional origins of civic voluntarism in the United States. *American Political Science Review*, 527-546.
Smith, & Grønbjerg, K. A. (2006). Scope and theory of government–nonprofit relations. *The Nonprofit Sector: A Research Handbook*, 221-242.
Smith, D. H., & Shen, C. (2002). The roots of civil society: A model of voluntary association prevalence applied to data on larger contemporary nations. *International Journal of Comparative Sociology, 43*(2), 93-133.
Smith, J. D., Rochester, C., & Hedley, R. (2005). *Introduction to the Voluntary Sector*: Taylor & Francis.

Soper, D.S. (2011). Effect Size (Cohen's d) Calculator for a Student t-Test [Software]. Available from http://www.danielsoper.com/statcalc
Sparber, C. (2010). Racial diversity and macroeconomic productivity across US states and cities. *Regional Studies*, *44*(1), 71-85.
Specht. (1993). Munificence and carrying capacity of the environment and organization formation. *Entrepreneurship Theory and Practice, 17*, 77-77.
Steinberg, R. (1990). Taxes and giving: New findings. *Voluntas: International Journal of Voluntary and Nonprofit Organizations, 1*(2), 61-79.
Suárez, D. F., & Hwang, H. (2008). Civic engagement and nonprofit lobbying in California, 1998-2003. *Nonprofit and Voluntary Sector Quarterly*, 37(1), 93-112.
Suchman, M. C. (1995). Managing legitimacy: Strategic and institutional approaches. *Academy of management review*, 20(3), 571-610.
Sumariwalla, R. D. (1986). *Toward a national taxonomy of exempt entities*. Paper prepared for Independent Sector. Washington, D. C.
Sunley, P., & Pinch, S. (2012). Financing social enterprise: social bricolage or evolutionary entrepreneurialism? *Social Enterprise Journal*, *8*(2), 108-122.
Swaminathan, A. (1996). Environmental conditions at founding and organizational mortality: A trial-by-fire model. *Academy of management journal*, 39(5), 1350-1377.
Tabachnick, B. G., & Fidell, L. S. (2007). Multilevel linear modeling. In *Using Multivariate Statistics*, Pearson Publications, 781-857.
Takahashi, L. M., & Dear, M. J. (1997). The changing dynamics of community opposition to human service facilities. *Journal of the American Planning Association*, *63*(1), 79-93.
Tanimoto, K., & Doi, M. (2007). Social Innovation Cluster in Action: A Case Study. *Hitotsubashi journal of commerce and management*, *41*(1), 1-17.
Thomas, J. M., & Darnton, J. (2006). Social diversity and economic development in the metropolis. *Journal of planning literature*, *21*(2), 153-168.
Thompson, J. L. (2002). The world of the social entrepreneur. *International Journal of Public Sector Management*, *15*(5), 412-431.
Thornton, J. P., & Belski, W. H. (2010). Financial reporting quality and price competition among nonprofit firms. *Applied economics*, 42(21), 2699-2713.
Tickamyer, A. R., & Duncan, C. M. (1990). Poverty and opportunity structure in rural America. *Annual review of sociology*, 67-86.
Townsend, D. M., & Hart, T. A. (2008). Perceived Institutional Ambiguity and the Choice of Organizational Form in Social Entrepreneurial Ventures. *Entrepreneurship: Theory & Practice*, *32*(4), 685-700.
Truong, V., & Sanchez, D. (2012). Nonprofit Social Enterprise: Models and Funding, *Green for All Youth Employment and Leadership Ladders Working Group*, 16.
Trussel, J. M., & Parsons, L. M. (2007). Financial reporting factors affecting donations to charitable organizations. *Advances in Accounting*, 23, 263-285.
Turner, S. E., Nygren, T. I., & Bowen, W. G. (1993). The NTEE classification system: tests of reliability/validity in the field of higher education. *Voluntas: International Journal of Voluntary and Nonprofit Organizations*, 4(1), 73-94.
Twigg, L., Taylor, J., & Mohan, J. (2010). Diversity or disadvantage? Putnam, Goodhart, ethnic heterogeneity, and collective efficacy. *Environment and planning. A*, *42*(6), 1421.
Twombly, E. C. (2001). Human service nonprofits in metropolitan areas during devolution and welfare reform. *Charting Civil Society*, The Urban Institute, 10.

Twombly, E. C. (2003). What factors affect the entry and exit of nonprofit human service organizations in metropolitan areas? *Nonprofit and voluntary sector quarterly*, *32*(2), 211-235.
Van den Berg, L., Braun, E., & Van Winden, W. (2001). Growth clusters in European cities: An integral approach. *Urban studies*, *38*(1), 185-205.
Van Slyke, D. M. (2002). The public management challenges of contracting with nonprofits for social services. *International Journal of Public Administration*, *25*(4), 489-517.
Van Slyke, D. M. (2007). Agents or stewards: Using theory to understand the government-nonprofit social service contracting relationship. *Journal of Public Administration Research and Theory*, *17*(2), 157-187.
Van Slyke, D. M., & Brooks, A. C. (2005). Why do people give? New evidence and strategies for nonprofit managers. *The American Review of Public Administration*, *35*(3), 199-222.
Vartanian, T. P. (2010). *Secondary data analysis*. Oxford University Press.
Voss, D. S. (2004). *Multicollinearity*. In *The Encyclopedia of Social Measurement*, ed. Kempf-Leonard, Kimberly. San Diego, CA: Academic Press.
Wade, J. A. (2000). *Financial and resource difficulties in the United States nonprofit sector: A review of strategic responses.* (9986970 D.P.A.), University of Georgia, Ann Arbor.
Wallace, N. (2009). Riding Out the Recession. *The Chronicle of Philanthropy*. Retrieved from www.philanthropy.com
Webb, J. W., Kistruck, G. M., Ireland, R. D., & Ketchen Jr, D. J. (2010). The entrepreneurship process in base of the pyramid markets: The case of multinational enterprise/ nongovernment organization alliances. *Entrepreneurship Theory and Practice*, *34*(3), 555-581.
Weerawardena, J., & Mort, G. S. (2006). Investigating social entrepreneurship: A multidimensional model. *Journal of world business*, *41*(1), 21-35.
Wickes, R., Zahnow, R., White, G., & Mazerolle, L. (2014). Ethnic diversity and its impact on community social cohesion and neighborly exchange. *Journal of Urban Affairs*, *36*(1), 51-78.
Williams, C. (2003). *New Trends in Financing the Nonprofit Sector in the United States*: Organisation for Economic Co-operation and Development.
Wing, K., Roeger, K. L., & Pollack, T. H. (2010). *The Nonprofit Sector in Brief: Public Charities, Giving and Volunteering, 2010*: Urban Institute Press.
Wolch, J., Moon, K., & Lee, M. (1990). A geography of children's services in Los Angeles. *Los Angeles, CA: Los Angeles Roundtable for Children*.
Wolch, J., & Walsh, J. (1998). Postmodern urbanism and delivering integrated services to families with children in Los Angeles. *Universities and communities: Remaking professional and interprofessional education for the next century*, 88-118.
Wolpert, J. (1995). Giving and region: Generous and stingy communities. *New directions for philanthropic fundraising*, *1995*(7), 11-30.
Xue, J., & Zhong, W. (2003). Unemployment, poverty and income disparity in urban China. *Asian Economic Journal*, 17(4), 383-405.
Yankow, J. J. (2004). The Geographic Mobility of Displaced Workers: Do Local Employment Conditions Matter? *The Review of Regional Studies*, *34*(2), 120-136.
Yetman, M. H., & Yetman, R. J. (2012). The Effects of Governance on the Accuracy of Charitable Expenses Reported by Nonprofit Organizations. *Contemporary Accounting Research*, 29(3), 738-767.

Yoon, I.-J. (1997). *On my own: Korean businesses and race relations in America*: University of Chicago Press.
Young, D., Kerlin, J., Teasdale, S., Soh, J., & Kickul, J. (2012). The dynamics and long term stability of social enterprise. *Bacq S. and Kickul J.(2012) Patterns in Social Entrepreneurship Research. New York. Edward Elgar Pub*, 217-242.
Young, D. R. (2000). Alternative models of government-nonprofit sector relations: Theoretical and international perspectives. *Nonprofit and voluntary sector quarterly*, *29*(1), 149-172.
Young, D. R., & Salamon, L. M. (2002). Commercialization, social ventures, and for-profit competition. *The state of nonprofit America*, 423-446.
Zahra, Gedajlovic, E., Neubaum, D. O., & Shulman, J. M. (2009). A typology of social entrepreneurs: Motives, search processes and ethical challenges. *Journal of Business Venturing*, *24*(5), 519-532.

## Appendix A: Supplemental Regression Analysis for Code I NPSEs

Curvilinear Effect of Code I NPSE Density on Financial Performance

| *Variable* | *β* | *SE* |
|---|---|---|
| 2011 Population | 0.37 | 0.66 |
| 2011 Businesses | -39.33 | 32.72 |
| 2011 Other NPOs | -2947.12* | 1398.73 |
| 2011 NPSE Size | 0.001*** | 0.00 |
| Code J NPSEs | 7944.93 | 25282.07 |
| Code K NPSEs | 22818.71 | 27914.51 |
| Code L NPSEs | -12401.61* | 5159.94 |
| Code M NPSEs | 15226.86 | 9162.56 |
| Code N NPSEs | -7192.09* | 3665.77 |
| Code O NPSEs | 10940.98 | 16408.86 |
| Code P NPSEs | 20157.87** | 6167.59 |
| Code I NPSE Density | 40318.11* | 19994.29 |
| Code I NPSE Density Squared | -396.35*** | 88.96 |
| | | |
| *F* Statistic | 15.71*** | |
| $R^2$ | 0.07*** | |

** $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$*

Dependent variable: NPSE Financial Performance.

*β* values are unstandardized coefficients. SE = Standard Error.

## Appendix B: Supplemental Regression Analysis for Code J NPSEs

Curvilinear Effect of Code J NPSE Density on Financial Performance

| *Variable* | *β* | *SE* |
|---|---|---|
| 2011 Population | 0.04 | 0.66 |
| 2011 Businesses | -20.24 | 32.89 |
| 2011 Other NPOs | -2494.13 | 1406.45 |
| 2011 NPSE Size | 0.001*** | 0.00 |
| Code I NPSEs | 19840.04 | 19099.33 |
| Code K NPSEs | 9801.11 | 28160.80 |
| Code L NPSEs | -11003.13* | 5155.53 |
| Code M NPSEs | 11131.67 | 9236.02 |
| Code N NPSEs | -8260.37* | 3666.05 |
| Code O NPSEs | 5561.96 | 16324.45 |
| Code P NPSEs | 20273.91** | 6128.48 |
| Code J NPSE Density | 43904.51 | 25877.61 |
| Code J NPSE Density Squared | -1326.51*** | 254.85 |
| | | |
| *F* Statistic | 16.30*** | |
| $R^2$ | 0.07*** | |

** $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$*

Dependent variable: NPSE Financial Performance.

$\beta$ values are unstandardized coefficients. SE = Standard Error.

## Appendix C: Supplemental Regression Analysis for Code K NPSEs

Curvilinear Effect of Code K NPSE Density on Financial Performance

| *Variable* | $\beta$ | *SE* |
|---|---|---|
| 2011 Population | 0.55 | 0.67 |
| 2011 Businesses | -46.97 | 32.75 |
| 2011 Other NPOs | -3277.96* | 1379.13 |
| 2011 NPSE Size | 0.001*** | 0.00 |
| Code I NPSEs | 27339.55 | 19310.16 |
| Code J NPSEs | -472.08 | 25430.29 |
| Code L NPSEs | -12050.38* | 5157.84 |
| Code M NPSEs | 14454.45 | 9174.71 |
| Code N NPSEs | -5282.67 | 3523.55 |
| Code O NPSEs | 11570.38 | 16413.60 |
| Code P NPSEs | 21538.46*** | 6113.57 |
| Code K NPSE Density | 72672.60* | 28977.52 |
| Code K NPSE Density Squared | -3305.56*** | 719.21 |
| | | |
| *F* Statistic | 15.81*** | |
| $R^2$ | 0.069*** | |

** $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$*

Dependent variable: NPSE Financial Performance.

$\beta$ values are unstandardized coefficients. SE = Standard Error.

## Appendix D: Supplemental Regression Analysis for Code L NPSEs

Curvilinear Effect of Code L NPSE Density on Financial Performance

| *Variable* | $\beta$ | *SE* |
|---|---|---|
| 2011 Population | 0.15 | 0.66 |
| 2011 Businesses | -17.29 | 33.16 |
| 2011 Other NPOs | -3826.82** | 1362.65 |
| 2011 NPSE Size | 0.001*** | 0.00 |
| Code I NPSEs | 8264.41 | 19142.82 |
| Code J NPSEs | 2421.81 | 25401.97 |
| Code K NPSEs | 18556.30 | 28064.93 |
| Code M NPSEs | 15478.82 | 9165.73 |
| Code N NPSEs | -7100.99 | 3690.82 |
| Code O NPSEs | 17834.97 | 16660.11 |
| Code P NPSEs | 20465.65** | 6169.79 |
| Code L NPSE Density | 1171.28 | 6037.95 |
| Code L NPSE Density Squared | -41.05*** | 9.80 |
| | | |
| *F* Statistic | 15.52*** | |
| $R^2$ | 0.068*** | |

** $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$*

Dependent variable: NPSE Financial Performance.

$\beta$ values are unstandardized coefficients. SE = Standard Error.

## Appendix E: Supplemental Regression Analysis for Code M NPSEs

Curvilinear Effect of Code M NPSE Density on Financial Performance

| *Variable* | *β* | *SE* |
|---|---|---|
| 2011 Population | -0.07 | 0.66 |
| 2011 Businesses | -29.29 | 33.02 |
| 2011 Other NPOs | -4481.45** | 1354.03 |
| 2011 NPSE Size | 0.001*** | 0.00 |
| Code I NPSEs | 10621.56 | 19170.44 |
| Code J NPSEs | 7454.75 | 25414.51 |
| Code K NPSEs | 28378.29 | 27952.37 |
| Code L NPSEs | -10475.72* | 5200.64 |
| Code N NPSEs | -2418.81 | 3448.92 |
| Code O NPSEs | 8439.47 | 16449.99 |
| Code P NPSEs | 24112.38*** | 6090.45 |
| Code M NPSE Density | 50691.39** | 15005.60 |
| Code M NPSE Density Squared | -858.12** | 322.13 |
| | | |
| *F* Statistic | 14.66*** | |
| $R^2$ | 0.065** | |

* $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$

Dependent variable: NPSE Financial Performance.

$\beta$ values are unstandardized coefficients. SE = Standard Error.

## Appendix F: Supplemental Regression Analysis for Code N NPSEs

Curvilinear Effect of Code N NPSE Density on Financial Performance

| *Variable* | $\beta$ | *SE* |
|---|---|---|
| 2011 Population | 0.24 | 0.66 |
| 2011 Businesses | -27.61 | 32.83 |
| 2011 Other NPOs | -3833.79** | 1360.66 |
| 2011 NPSE Size | 0.001*** | 0.00 |
| Code I NPSEs | 15334.34 | 19092.47 |
| Code J NPSEs | -4488.42 | 25578.30 |
| Code K NPSEs | 10507.54 | 28317.45 |
| Code L NPSEs | -10667.61* | 5167.24 |
| Code M NPSEs | 9958.98 | 9347.68 |
| Code O NPSEs | 14951.95 | 16514.48 |
| Code P NPSEs | 21548.74*** | 6118.41 |
| Code N NPSE Density | 4285.02 | 3628.62 |
| Code N NPSE Density Squared | -28.73*** | 6.47 |
| | | |
| *F* Statistic | 15.70*** | |
| $R^2$ | 0.069*** | |

** $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$*

Dependent variable: NPSE Financial Performance.

$\beta$ values are unstandardized coefficients. SE = Standard Error.

## Appendix G: Supplemental Regression Analysis for Code O NPSEs

Curvilinear Effect of Code O NPSE Density on Financial Performance

| *Variable* | $\beta$ | *SE* |
|---|---|---|
| 2011 Population | 0.18 | 0.66 |
| 2011 Businesses | -21.18 | 33.12 |
| 2011 Other NPOs | -4037.43** | 1359.48 |
| 2011 NPSE Size | 0.001*** | 0.00 |
| Code I NPSEs | 11982.91 | 19115.84 |
| Code J NPSEs | 326.06 | 25528.61 |
| Code K NPSEs | 21267.99 | 28050.15 |
| Code L NPSEs | -8201.14 | 5261.94 |
| Code M NPSEs | 16536.90 | 9157.03 |
| Code N NPSEs | -5670.03 | 3618.41 |
| Code P NPSEs | 21922.54*** | 6132.78 |
| Code O NPSE Density | 26639.17 | 17411.73 |
| Code O NPSE Density Squared | -152.66*** | 40.97 |
| | | |
| *F* Statistic | 15.22*** | |
| $R^2$ | 0.067*** | |

** $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$*

Dependent variable: NPSE Financial Performance.

$\beta$ values are unstandardized coefficients. SE = Standard Error.

## Appendix H: Supplemental Regression Analysis for Code P NPSEs

Curvilinear Effect of Code P NPSE Density on Financial Performance

| *Variable* | $\beta$ | *SE* |
|---|---|---|
| 2011 Population | 0.31 | 0.66 |
| 2011 Businesses | -17.19 | 33.03 |
| 2011 Other NPOs | -3745.24** | 1360.46 |
| 2011 NPSE Size | 0.001*** | 0.00 |
| Code I NPSEs | 11149.51 | 19085.32 |
| Code J NPSEs | 1920.93 | 25351.11 |
| Code K NPSEs | 14274.97 | 28091.48 |
| Code L NPSEs | -8268.08 | 5212.22 |
| Code M NPSEs | 13099.58 | 9199.43 |
| Code N NPSEs | -7084.95* | 3620.03 |
| Code O NPSEs | 16453.69 | 16522.56 |
| Code P NPSE Density | 24376.69*** | 6061.40 |
| Code P NPSE Density Squared | -11.53*** | 2.39 |
| | | |
| *F* Statistic | 15.99*** | |
| $R^2$ | 0.07*** | |

** $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$*

Dependent variable: NPSE Financial Performance.

$\beta$ values are unstandardized coefficients. SE = Standard Error.