5-2011

An Ecology of Philanthropy: Community Composition and Nonprofit Revenue in the United States

Wendie Neesa Choudary

University of Arkansas, Fayetteville

Follow this and additional works at: http://scholarworks.uark.edu/etd

Part of the Civic and Community Engagement Commons, and the Demography, Population, and Ecology Commons

Recommended Citation

http://scholarworks.uark.edu/etd/88

This Thesis is brought to you for free and open access by ScholarWorks@UARK. It has been accepted for inclusion in Theses and Dissertations by an authorized administrator of ScholarWorks@UARK. For more information, please contact scholar@uark.edu, ccmiddle@uark.edu.
ABSTRACT

There is little doubt that most American cities are currently troubled places because of massive economic shifts that have marked the last two decades. Charitable giving has consistently been seen as the lifeblood of communities around the United States (Backman and Smith 2000). The primary purpose of this study is to examine the relationship between community composition and charitable giving. The impact of community characteristics (community composition, organizational composition, and community deterioration) on charitable revenues will be assessed using revenue data from the 2006-2007, 501(c)(3), 990, charitable organization forms along with United States county census data. One-way ANOVA and regression analysis examine the independent community composition variables as well as each block of variables and their relationships to the level of charitable revenue. Findings suggest there are important philanthropic differences across regions. In addition, independent community characteristics as well as the aggregate block compositions have significant impacts on county-level charitable revenue.
This thesis is approved for recommendation to the Graduate Council.

Thesis Director:

________________
Dr. Kevin Fitzpatrick

Thesis Committee:

________________
Dr. Shauna Morimoto

________________
Dr. Anna Zajicek
THESIS DUPLICATION RELEASE

I hereby authorize the University of Arkansas Libraries to duplicate this thesis when needed for research and/or scholarship.

Agreed

________________________________________
Wendie Neesa Choudary
ACKNOWLEDGMENTS

I would like to acknowledge the chair of my committee, Dr. Kevin M. Fitzpatrick, for his everlasting support and guidance throughout this laborious process of developing my idea, obtaining data, and writing the thesis. Dr. Fitzpatrick’s hands-off approach allowed me to develop my own ideas, utilize new research skills, and channel my sociological imagination. Incontestably, working with Dr. Fitzpatrick has been an invaluable learning opportunity.

In addition, I would like to thank my committee members, Dr. Shauna Morimoto and Dr. Anna Zajicek, for their support in this project. Professor Morimoto met with me on multiple occasions, imparting her esteemed wisdom in various capacities, reminding me to keep thinking and continue moving forward. I would also like to thank Dr. Zajicek for stepping in during one of many transitions in this multitudinous process, providing instrumental advice. I would further like to thank Ling Ting for providing me with the appropriate data management skills to carry out this demanding project.

Furthermore, the lessons learned in the academic environment from these notable figures as well as those lessons acquired in the classroom will carry me through to the next step in my academic career.
# TABLE OF CONTENTS

<table>
<thead>
<tr>
<th>CHAPTER</th>
<th>SECTION</th>
<th>PAGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>INTRODUCTION</td>
<td>1</td>
</tr>
<tr>
<td>2</td>
<td>BACKGROUND AND THEORY</td>
<td>6</td>
</tr>
<tr>
<td>3</td>
<td>DATA AND METHODS</td>
<td>26</td>
</tr>
<tr>
<td>4</td>
<td>RESULTS</td>
<td>41</td>
</tr>
<tr>
<td>5</td>
<td>CONCLUSIONS</td>
<td>47</td>
</tr>
<tr>
<td></td>
<td>REFERENCES</td>
<td>54</td>
</tr>
<tr>
<td></td>
<td>APPENDIX</td>
<td>62</td>
</tr>
</tbody>
</table>
CHAPTER 1 INTRODUCTION

A communities’ willingness to donate capital creates important opportunities for community members to live higher qualities of life than without these monetary donations (Backman and Smith 2000). Charitable giving provides goods and services to the underprivileged as well as to the growth and development of a community. While much literature has focused on individuals’ willingness to give within a community, little if any research has examined what compositional/structural features of communities are related to these fluctuations in charitable donations.

The sociospatial perspective of the new urban sociology is the primary focus of the study. A sociospatial sociologist seeks to understand settlement spaces in which people reside and give specific cultural meanings and value; discover processes that occur within space; and interpret the role that economic, religious, and social institutions play in creating or destroying these places (Gottdiener and Hutchinson 2006). In order to capture the circumstance of contemporary life among people in metropolitan regions, certain location or spatial factors such as the clustering of homes in a given area, the conglomeration of businesses, banks, hospitals, and farms; and all other spatial phenomena and socioeconomic contingencies that affect metropolitan life should be included in any study of philanthropy (Gottdiener and Hutchinson 2006).

In addition to the sociospatial perspective, the ecological premise based on Darwin’s notion of what Herbert Spencer coined as “survival of the fittest” comes into play in terms of understanding how communities compete for resources (Bounds 2004; Gottdiener and Hutchinson 2006). Community members must rely on their families, close friends, and communities to provide certain necessary resources for their survival,
especially considering populations have increasingly grown into massive industrial cities, urban clusters, and metropolitan areas (Bounds 2004). Instead of individuals fighting each other for survival resources, communities tend to fight together for resources, possibly attempting to compete with other communities for these resources. The communities that tend to survive and have the highest quality of life may be the communities that spend more money on themselves via nonprofit giving.

Social scientists are unsure as to precisely what aspects of communities impact charitable giving. The current literature on charitable giving and community suggests social scientists have researched philanthropy through a lens that primarily focuses on individual patterns of giving, examining a wide array of personal motivations and factors such as attitudes, beliefs, income, religion, capital, personality, etc. (Andreoni 1990; Andreoni, Brown, and Rischall 2003; Brooks 2003; Magat 1989; Mesch et al. 2006; Putnam 1995; Radley and Kennedy 1995). Individuals and household donors have their own reasons for giving; however, a community may also have its own meso-level compositional character that influences charitable giving. Earlier sociologists like Durkheim (1893/1997), Tonnies (1887/2001), and Tocqueville (1835/2000) were some of the early pioneers arguing that it was important to look through a different lens in order to better understand patterns of interaction at the community and societal level. Using a similar perspective, one might argue that the amount of charitable giving that takes place in communities, then, could be based on the way these communities are organized rather than on how individuals behave within those communities. Because charitable giving may be related to these macro structures, further analyzing the nexus of community
composition(s) and giving seem necessary in order to better understand this “behavior” within any community context.

Compared to other developed countries, America has one of the highest amounts of non-profit revenue, purportedly because of fewer socialist policies (Rose-Ackerman 1996:707). In other words, U.S. citizens receive less governmental support for social and economic services than many other developed countries. Moreover, there is little doubt that many American cities are deeply troubled places because of massive economic shifts that have marked the last two decades. According to Van Deth (2008:249), many communities today suffer from a "wide variety of social and political ills such as declining feelings of solidarity and community, declining confidence in democracy, deteriorating neighborhoods…a rise in 'minor' forms of criminality, the spread of corruption,” a rise in unemployment, and a rise in low-paying service jobs.

Clearly, the U.S. government will never fully meet all needs of every low income or underprivileged individual, family, or community, considering the current economic and welfare climate. In response, some scholars and policy makers propose grassroots poverty reform, which most likely consists of community action and support (Marwell 2004). Therefore, a resident’s community becomes critical for the development of its capacity to “solve social problems, support individuals, and mobilize residents for collective action” (Backman and Smith 2000:356). In other words, once a community has grown and developed, it becomes its own defense against the ills that may exist within it. According to Eisenberg (1998:1), low-income neighborhoods and communities in urban and depressed rural areas are starting to show progress and signs of revitalization in part because of philanthropic institutions, community organizations, and nonprofit groups. In
hopes of building stable and productive neighborhoods, the work of philanthropic organizations becomes paramount. Research on the relationship between philanthropy and community dynamics needs to be undertaken in order to better understand what makes communities pull together and give back to their community philanthropic groups.

Nonprofit organizations are formed to provide programs and services to the community: health and childcare, educational services, social services, and civic activities (Institute for Economic Advancement 2008). The philanthropic work of nonprofit organizations that typically provide for community needs consists of fundraising; grant writing for philanthropic foundation funds and/or government grants; and soliciting community members (Institute for Economic Advancement 2008). Therefore, the amount of charitable giving in a community is important to a community's growth and defense against its social ills and declining social solidarity. According to the National Philanthropic Trust (2009) and GivingUSA (2009), in 2008, 89 percent of individuals and households, gave to one or more of the following nonprofits: religion, education, charitable foundations, health, public-society benefit sector, arts, culture, and humanities, international affairs, and environment and animals. Additionally, individual giving was an estimated $229.28 billion, 75 percent of the total giving, in 2008 (GivingUSA 2009). Skocpol and Fiorina (1999) have studied the nature of community participation and charitable giving, defining it as the life-blood of the community; thus instead of viewing charitable giving at the individual level, charitable giving at the community level provides new insight into an old problem—What motivates communities to give beyond individual behavior?
Given the expectation that place matters for charitable giving and following the work of contemporary philanthropic, urban, and human ecological sociological literature (e.g. Bounds 2004; Brooks 2005; Clotfelter and Ehrlich 1999; Eckstein 2001; Galper 1998; Marwell 2004; Van Slyke and Brooks 2005; Wang and Graddy 2008,) there are decidedly three potential elements in a community that impact community giving: (1) community composition (e.g. population sociodemographics, density, socioeconomic characteristics) (2) organizational composition (e.g. organizational demographics, banking, economic climate); and (3) community deterioration (e.g. housing composition, poverty, and unhealthy circumstances). Thus, this research examines how these compositional characteristics impact community nonprofit organizations’ charitable revenue in communities.

The research objectives of the study are to (1) determine if philanthropy can be meaningfully described at the community level; (2) explore which community compositional factors best determine philanthropy at the aggregate level; (3) explore why some communities are more philanthropic than others; and (4) test specific hypotheses between community composition characteristics and nonprofit charitable revenue. Figure 1 shows the relationship hypotheses for the stated research objectives.

See Figure 1 on page 62
CHAPTER 2 THEORY AND EVIDENCE

For Durkheim (1893/1997), community means something more than merely the sum of its individual members but rather is best described at its own level of organization. Thus, community level patterns and processes are distinct from patterns and processes within populations of individuals. Spatial sociologists, historically, have studied how society (individuals and collectivities) transforms natural space into social space. In its most elementary form, humans are attached via gravity to the surface of the Earth, thus humans exist in natural space (Gans 2002). Natural space becomes a social phenomenon or social space that can be sociologically explored once people begin using it, putting boundaries on it, and attaching meanings to it (ownership, price, values, etc.). Thus, the bounded space becomes a place in which humans reside, function, and create meaning. Moreover, spatial sociologists study how society uses social space, exchanges social space, and what social, economic, and other processes, forces, and exchanges come into fruition; and finally, how both kinds of space (natural and social) affect individuals, collectivities, social processes and forces (Gans 2002).

Over time, humans have created and formed cities, communities, and neighborhoods, or bounded spaces such as county boundaries, in which they have carried out specific social processes. Lewis Mumford (1961) argued counties with large cities serve as both huge magnets and containers that concentrate people and economic activities or wealth within well-defined, bounded spaces (Gottdiener and Hutchinson 2006). In the following sections, this perspective will be developed within an urban, ecological context, followed by an analysis of community and policy factors that are related to philanthropic resources.
An Ecology of Philanthropy

The early social theorists—Durkheim, Marx, Weber, Toennies, and Simmel—provide much of the theoretical base for contemporary social theory relating to urban sociology, human ecology, and society (Bounds 2004). Their work covers the central assumptions that inter-connect social structure, self-formation, social action, and legitimate authority all of which informs contemporary urban social theory (Bounds 2004). Max Weber’s (2005/1905) analysis covered power relationships and the transformation of mercantile capitalism from feudal society, imposing democracy and new forms of legitimate authority (Bound 2004). Ferdinand Tonnies first explained this transformation of civil society by noting the rural to urban shift by way of conceptual categories—Gemeinschaft (community) and Gesellschaft (urban society), defining urban society as a place in which a “sense of loss” is encapsulated in the transition from rural to urban (Bounds 2004: 16; Lin and Mele 2005). Tonnies concept of “sense of loss” is important because it may hinder or help the way communities structurally develop. The shift from Gemeinschaft to Gesellschaft is comparable with Emile Durkheim’s conception of society “undergoing a transition from mechanical to organic solidarity” (Lin and Mele 2005:13). Durkheim noted the creation of complex societies, which gave rise to increasing levels of “moral density” or social interactions and encounters between individuals. Later, Georg Simmel attempted to assert the impact of society and modernity on the personalities of individuals, writing a seminal essay on the development of urban sociology titled, “The Metropolis and Mental Life” (Bounds 2004). Lastly, Karl Marx’s (2004/1888) structural evolutionary concepts reflected the popularity of evolutionary
ideas of his time (Bounds 2004). Marx’s believed the history of all pre-existing society began with free and productive agents, but over time they became coerced and dehumanized through social formation and the mode of production within industrialized society (Marx and Engels 2004[1888]). Contemporary urban theorist relate back to Marx’s notion of evolutionary inevitability.

The Chicago School, following theorists such as Marx and Durkheim, created a benchmark for urban research known as human ecology. Human ecologists primarily focused on developing testable hypotheses concerning growth, differentiation, anomie, and organic analogies. Theorists such as Robert Park, Ernest Burgess, and Roderick McKenzie viewed the city as a social organism with collective behavior governed by the competitive struggle for existence. Similar to Marx, their research was heavily influenced by Darwinian evolutionary and organic analogies, as well as classical economics in describing urban society (Bounds 2004). For example, urban social life was premised to have developed in a similar, unplanned, natural way as plant life. In effect, the Chicago School researchers studied competition and dominance in the city in relation to spatial distribution and land use (Bounds 2004). Although there is much debate on the topic of human ecology, there still remains a critical element of “resource competition,” especially in regards to the level of charitable giving at the aggregate level and its potential to help or hinder a given community’s quality of life.

**Community Nonprofits, Organized Philanthropy, and Policy**

In its most elementary form, giving is important for a community; higher community giving levels are better than lower levels because it requires a high level of finances to sustain a community (Wolpert 1994). Historical and contemporary literature
has shown that every community has had a slightly unique conception of poverty and a
distinctive definition of charitable giving (Cohen 2005). This of course has helped to
reinforce the notion that communities over time have formed their own norms, morals
and social connectedness based on social determinants rather than on individual attitudes.
Throughout historical space, helping others through charitable giving has been a
communal phenomenon based on communal values, norms and social determinants
(Cohen 2005).

In the late 19th and early 20th centuries, organized philanthropy developed in
America in the form of foundations (Putnam 2000). Organized philanthropy began as an
initiative by citizen and policy makers in order to collaborate together; consolidate
individual, group, and community giving; and create capital allocation policies to
improve social problems (Marwell 2004; Ridings 1997). Thus, the roots of philanthropy
in America are grounded in the desire to help others, but ultimately to improve one’s
community. Since the beginning of organized philanthropy in America, philanthropists
like Andrew Carnegie, Margaret Olivia Sage, and John Rockefeller were influenced and
motivated by their communities’ and their own desire to give back and improve the
noticeable faults among society (Ridings 1997).

American communities today are byproducts of the economic, capitalist system.
Charity begins in the home and is extended to the community and society as a whole
(Dunn 2008). Since the industrial revolution and the move toward a market economy in
the eighteenth and nineteenth centuries in countries like France, England, and the United
States, rural society began transforming into modern cities and communities (Lin and
Mele 2005). People migrated from rural to urban areas to the growing cities, adjusting
from traditional to modern ways of life. All previous feudal and communal traditions were passed by with the creation of capitalist structures such as banks, factories, and marketplaces (Lin and Mele 2005). These increases in rural-to-urban migrants led to social inequality, crime, and other related social problems (Lin and Mele 2005). With this empirically studied change in community life, what is the role of charitable giving? Does this giving make a difference to community well-being?

Community giving is not a new concept; in fact, it has been refined over the past century through the growth of community development organizations that have emphasized community revitalization and citizen involvement (Ridings 1997). Community development organizations require communities to partner with policy and grant makers focusing on community building by first understanding the complex and long-term implication of their responsibility to local communities (Ridings 1997). Organized philanthropy has become bureaucratized through top-down approaches with a contradicting underlining grassroots campaign for citizen participation (Marwell 2004). This structural contradiction in organized philanthropy requires a supportive, objective, and scientifically based analysis of philanthropy and nonprofit organizations to engage public policy-makers, grant makers, and government leaders alike to put philanthropic dollars at work where they are most needed (Marwell 2004; Ridings 1997). Although the federal government, by taxing income and sales, can redistribute capital from wealthier areas to impoverished areas to some degree; the charitable sector has a much more limited capacity to make those transfers with their own charitable revenue (Wolpert 1994). Nonetheless, in recent years, the work done by foundations, corporate-giving, and
nonprofit organizations have improved the health and wealth of communities because of nonprofit giving (Ridings 1997).

**Nonprofit Charitable Revenue**

Nonprofit organizations are an essential part of local social networks that connect individuals and organizations within a community (Backman and Smith 2000). In this thesis, non-governmental organizations (NGOs) are discussed as nongovernmental organizations or private voluntary organizations, which are non-profit-seeking organizations (religious, secular, professional, etc.).

The goal of an NGO is to reduce human suffering in America (Streeten 1997). Some examples of nonprofit organizations are community associations, cooperatives, church groups, trade unions, environmental groups, women’s groups, credit unions, consumer associations, and even large international organizations (Streeten 1997). NGOs are considered voluntary, private organizations that mobilize the community into charitable giving behaviors in attempt to relieve suffering and create local development. Nonprofit organizations (501(c)(3)) receive donations, government grants, foundation funds, and payments for services, all of which create what the IRS characterizes as nonprofit charitable revenue to be used for various community services. The strength of NGOs rests in their role as catalysts, which link families and communities with the institutions of the wider society (Streetner 1997). In his study of governmental reform in Italy in the 1970s, Robert Putnam (1993) demonstrated that the effectiveness of social service and welfare programs was due in a large part to the higher level of civic culture that could be found in the surrounding communities. For example, in some cases fringe benefits associated with nonprofit organizations create charitable donations. Donating to
charitable organizations such as nonprofits may buy services in return, such as access to exclusive events and dinners, meetings, or special concerts (Bekkers and Wiepking 2007). In some cases, however, giving to nonprofits fulfills an obligation that community members feel pressured into, without benefits of any kind. Regardless of its source or reasoning, nonprofit revenue creates not only services for the needy, but also serves as a community asset for development and social interaction.

**Settlement Spaces: Community Composition**

Stripped to its essential content, the word “social” means interdependence. Thus, the universal tendency for human settlement is to live near one another (Hawley 1971), which is why the socio-spatial context of this research revolves around settlement spaces. Why are characteristics of settlement spaces (communities) important to the amount of monetary donations they receive? We examine this question by looking at what community characteristics exist currently and how they interact within the community. Are these interactions creating a healthy, beneficial community for its members, or are they breeding problems and creating unhealthy consequences for community growth? Three categories of characteristics have been identified: community composition, organizational composition, and community deterioration. There are specific characteristics within each compositional category that help to define which elements of community impact nonprofit charitable revenue and moreover the health and well being of the community.
Rationale and Hypotheses

Community Composition

Sociologists and demographers have typically used a wide range of socio-demographics to describe and categorize communities. In this study, the social and natural environments are examined together. The term community composition brings to mind various aspects and characteristics that may encompass a community; however, we attempt to analyze community composition by proxy indicators.

Region. Understanding giving by examining differences across community contexts rather than focusing on donor profiles or other cultural differences is important to any systematic analysis of charitable giving. Unfortunately, there is little research comparing charitable giving across regions without regards to particular donor profiles. I argue that place and context do matter in nonprofit charitable giving behaviors regardless of donor profile. For example, Wolpert (1995) researched giving across region, and found differences between “generous and stingy communities.” In contrast, our study focuses on how structures in a region impact giving beyond individual generosity or greed. Regional differences rely on multiple factors, and most importantly, the culture of giving in a specific region. Separate regions have enduring--and especially distinctive--cultures of giving, various levels of distress, patterns of preferences and demands for nonprofit services, alongside a wide variety of very idiosyncratic evolutions of communities.

Thus, the rationale for a community and regional approach is multifaceted; it can reveal aspects on giving not observable at the national level or through individual-level donor samples (Wolpert 1994). Charitable organizations are organized at the regional and local levels. The United States is a nation with very distinctive regional cultures, political
attitudes, social preferences, tastes, and social welfare attitudes that may profoundly affect levels of giving. Other researchers have found important differences in giving levels that have been declining due to harsher economic environments in the more generous locales rather than in the more poverty-stricken places (Wolpert 1994). Some distinctions between regions are attributed to their settlement origins (Rom 1988). Larger cities, on the other hand, are presumed to be more a part of a national culture with less evidence of regionalism (Rom 1988). Some findings appear to indicate that states higher in public sector generosity also tend to be somewhat more generous in the contributions to nonprofits. Places that are generous in their support of government services tend also to be more generous in their charitable donations (Wolpert 1994).

Most charities have a local/regional rather than a national base for fundraising and provisions of services, thus comparisons of what exists across communities is paramount (Wolpert 1994). Moreover, some places are more generous than others simply because they inhabit more generous donor profile groups. Wolpert (1995) argues that smaller or more socially homogenous places are more generous than larger and more diverse places. We argue, however, that regions with larger cities, which include more community structures and settlements, will produce more charitable giving. Wolpert (1995) also argues how carrying out a state, county, and metropolitan-level analysis can test for significant disparities in generosity between places, especially considering charitable organizations are usually local entities, and have no national or regional organization to reallocate contributions to where they are most needed. Given the expectation that place matters for charitable giving, we would hypothesize there would be significant differences across regions of the country with regards to revenue received by charitable
organizations. The precise nature of those differences is yet to be determined but we would expect some difference to emerge.

**Density.** Putnam (2000) found that town size and density was negatively related to giving. In other words, smaller towns gave more to charitable organizations than larger cities. This may be enhanced by the perceived risk of crime or urban areas with a higher population compared to the stability in rural areas, promoting giving. In a county-level study of Indiana’s community structures and nonprofits, Gronbjerg and Paarlberg (2001) found that population size and density had a moderate impact on the density of charitable and mutual-benefit nonprofits. On the other hand, Regenerus, Smith, and Sikking (1998) found that people living in larger communities with more people more often donated to the poor. Duncan (1999) found a negative effect of living in a small city or farm on giving with much less density. For example, counties where the largest city has less than 10,000 residents had more charitable nonprofit revenue than counties where the largest city has more than 10,000 residents. Lincoln (1977) argued that high levels of population density, urbanization, would negatively affect community support for nonprofits; however, Saxton and Benson (2005) argued that larger communities with urban environments should have an easier time developing a concentrated nonprofit community. Thus, population would positively affect charitable giving to these nonprofits and as such we hypothesize higher density populations to be positively related with charitable giving.

**Educational Attainment.** There is a positive relationship that has been noted between philanthropy and the level of education in most empirical studies. Educational systems impact the community through similar symbols as well as the belief in its
necessity for growth. An education is important for youth to excel and provide for the future of the community. More monetary donations might be where there are more educated community members since educational bodies are necessary for community growth, health, and social connectedness. According to previous literature, giving increases with education (Bekkers and Wiepking 2007). Brown (1999) found that controlling for income; education-level has a positive effect on how much people give to charitable causes. In many cases, areas with more opportunities for education, such as higher education institutions, have a higher population with a higher education. Households with a college graduate make a charitable contribution of more than four and a half times higher than a household with a non-college graduate (Independent Sector 2002). An overwhelming number of donors gave to well-endowed universities where the donors graduated from universities, colleges, medical schools, and hospitals (Katal 2006). People tend to give to institutions that they know well and may one day be a place that educates their children (Katal 2006). Additionally, education places people higher in a social hierarchy, which often encourages and makes them more willing to give for the public good (Brown and Ferris 2006). As a result, we would hypothesize that those communities with a higher percentage of educated individuals will be positively related to charitable giving.

Organizational Composition

Organizations in a community go unheeded in most studies of community and charitable giving. Business establishments, agricultural systems, housing market, and the healthcare market are important components of analyzing the complexity and structure of communities. Members of a community define themselves by the organizations they
belong to or the organizations that serve them within the community setting. Thus, organizations help to perpetuate social connectedness through common symbols (religious, advertisements, land marks, school mascot), beliefs (religious, business mottos), and social pressures, and expectations, (community welfare among nonprofits, scholarships in schools, tithes in church, etc.). These common symbols, beliefs, and social pressures all provide norms that people adjust and adhere to. Thus, we would expect the organizational composition in general to be important in determining levels of charitable giving in communities.

**Non-Profit Population.** Business establishments, consumer locations, and pre-existing nonprofit organizations may increase the amount of charitable giving in communities. There has been dispute, however, on whether more or less businesses and/or nonprofits are likely to increase charitable contributions. According to Zakour and Gillespie (1998) and Marsh (1995), distressed urban communities had fewer charitable nonprofit organizations than communities with a more affluent culture. Capacity building is an issue faced by many nonprofit organizations, considering they rely on government funds, grants from charitable foundations, and direct donations to maintain their operations and goals (Eade 1997). Thus, if these sources of revenue are few, the reliability or predictability with which the organization can hire staff, sustain facilities, maintain programs, or keep tax-exempt status is compromised (Eade 1997). On the other hand, Corbin (1999) found that as poverty levels increase, the number of nonprofit social service providers also increases. It follows then that the need for services creates more action toward creating nonprofit charitable organizations. Additionally, Wiewel and Hunter (1985) reported that communities’ higher densities of existing organizations
provide more favorable conditions for new organizations to survive, allowing the community to grow and thrive. Based on the knowledge that greater nonprofit organizations’ presence implies a more improved economic health and stability in communities (Katel 2006), we hypothesize that communities with greater numbers of nonprofit organization will be positively related to charitable giving.

**Farms Less than 50 Acres.** The relationship of agriculture scale to community well-being has been the subject of many social science studies. Agricultural communities that are dominated by a few very large farms will have a significantly lower quality of life than agricultural communities in which farming is organized around smaller-scale family operations.

Rural sociologist E.D. Tetreau (1940) examined the relationship between farm scale and community well-being in Arizona in the 1930s, advocating for a “balanced agriculture” that would include enough small farms to ensure community viability. Tetreau (1940) found that “any excessive reduction in the numbers of resident owner families will tend to weaken local initiative and deliberations without which popular government is an empty shell (Tetreau 1940:204).” Another rural sociologist, Goldschmidt (1978) found that large-scale farming operations led to the majority of the population’s having to work as wage labor for others, which has a direct effect on income, social conditions, and availability of excess resources to give. More recently, Thomas Lyson (2001) found that while large-scale industrial-style farms can negatively impact community welfare, the impact is muted by the presence of an active citizenry and an economically independent middle class (Yang and Lyson 2001). Large-scale industrial agriculture, which is more mechanized than smaller-scale agriculture, often leads to a
depopulation of rural communities, which in turn threatens the viability of rural schools, churches, small businesses and the provision of social services (Christenson and Levinson 2003). As such we would hypothesize that the percentage of farms smaller than 50 acres would be positively related to charitable giving.

**Home Value.** Key (2001) found average home values to be significantly and positively correlated with charitable giving to museums. Local wealth can be captured for local development-- effective social change groups have been known to inventory the income, savings, home values, and expenditure patterns in their neighborhoods (McKnight and Kretzmann 1996). In its simplest terms, adequate housing provides basic shelter, along with adequate light, ventilation, and sanitary waste disposal (Christenson and Levinson 2003). Because of housing structures, humans interact spatially, and this spatial quality plays an important role in determining with whom people interact with and what the quality of those interactions will look like (Christenson and Levinson 2003). The value of homes, thus, plays a potentially important role in determining the shape and quality of the surrounding community. Studies done on public housing complexes built after WWII showed a lack of control and a high concentration of poor households (Christenson and Levinson 2003). When basic safety needs are not met all other individual and communal activities are undermined. Controversially, governmental zoning and building regulations have been used to reinforce the class segregation of neighborhoods, thus preserving the status and property values of the affluent (Christenson and Levinson 2003). Housing is by its nature an expensive long-term investment that shapes the character of a community for years after it is built. Because of the importance
of homes to the general health and well-being of communities, we hypothesize that median value of homes will positively related to charitable giving.

**Beds in Community Hospitals.** America’s community hospitals--the majority of which are nonprofit institutions--are central elements of its health care system and an important indicator of the quality of life in communities (Iglehart 1993). Therefore, hospital beds per some population may be an indicator of the availability of health care services and capacity to serve the general population. Heffler and associates (2001) found spending for health care to have increased since 1999 and believe health spending will continue to rise (Heffler et al. 2001). Unfortunately, according to a recent study by the Kaiser Family Foundation, community hospital capacity in the United States has decreased over the last thirty years as a result of shorter lengths of stay in hospitals and increased use of outpatient procedures (Iglehart 1993; Kaiser Family Foundation 2005). To accommodate the need for services, hospitals must maintain a bed capacity that exceeds actual use at any given time, raising the cost of services. Regardless of the diminished return, we hypothesize that more hospital beds available to a population in a community will be positively related to charitable giving.

**Community Deterioration**

Every community has its problems; no community is ideal. There has yet to be a community without some form of deterioration (Putnam 2000). Research shows that poorer and less organized communities are more likely to be at a disadvantage for health services, recreational facilities, and eating facilities among other entities (De Marco 2007). Therefore, in communities where poverty, homelessness, and criminal behavior exist, we believe there will be less charitable giving. While the opposite has been argued
in the past, i.e. more problems generate more local dollars in charitable giving to address specific problems, deteriorating, declining communities with limited financial capital to start with are more likely to be hindered in that giving relative to their more “better-‘off’” counterparts.

**Infant Mortality.** The significance of infant mortality as a defining indicator of community health status and well-being has been well documented in social science research (Signh and Yu 1995): “A nation grows out of its children, and if its children die in thousands in infancy it means that the sources of a nation’s population are being sapped, and further that the conditions which kill such a large proportion of infants injure many of those which survive” (Garrett et al. 2007: 1). Among the most vulnerable, low-birth weight infants, whose survival may depend on timely access to quality obstetric and neonatal care, many do not receive required health care (Tomashek et al. 2006). Research has shown that infant mortality stems from the substantial racial disparity in infant survival and associated socioeconomic inequality such as education and family income that have existed in the country for a long period of time (Gortmaker 1979; Signh and Yu 1995), noticeably with higher rates of infant mortality among the disadvantaged populations (Hogue and Hargraves 1993). Schoendorf and associates found that infant mortality risk is determined by low birth weight and predicted by a combination of maternal, paternal, and overall household characteristics (Schoendorf et al. 1992), all of which seem to be patterned around urban, densely populated areas located within certain neighborhoods and communities (Mathews, Menacker, and MacDorman 2004).

The World Health Organization created a primary health care model, which emphasizes collaboration between communities and health professionals to develop
responsive, accessible, and community-based preventive care service (Barnes-Boyd, Fordham, and Nacion 2001), thus, not only do researchers note the socioeconomic differences based on location, but also the methods in which the infant mortality should be addressed, implying that it’s a community-level problem. The death of infants in relation to a community is gauged by a form of death rate known as the infant mortality rate. A low rate, other things being equal, indicates a healthy community, a high rate the reverse (Garrett et al. 2007). Communal life becomes healthier and more civilized once ordinary death rates decline, and on that same principle, it seems reasonable that infant death will follow a similar course (Garrett et al. 2007). Researchers have shown that evidences of urbanization upon infant deaths are evident; in a healthy community, infant mortality declines an average of 86 percent, whereas in the urban district it declined an average of only 59 percent (Garrett et al. 2007). Thus, based on this literature, we hypothesize that communities with higher infant mortality rates will be negatively related to charitable giving.

Population Change. Communities with less migration and more stable residents are more likely to donate to charitable organizations than communities with greater flux and population turnover (Christenson and Levinson 2003). People who choose to live longer in one community may increase their understanding of the norms of community life, enlarge their networks, and develop greater bonds of trust with others in the community (Apinunmahakul and Devlin 2008). Therefore, communities with more permanence are more likely to “breed” connectedness and the desire to support the communities that people live in and thus give to nonprofit charitable organizations. Gronbjerg and Paarlberg (2001) found the rate of population change in a community had
a negative impact on the density of membership organizations, suggesting that these organizations do best in stable communities rather than rapidly changing ones. In other words, communities that have less migration tend to have higher social connectedness than unstable, rapidly changing communities (Apinunmahakul and Devlin 2008). Thus we hypothesize that more population change/flux will be negatively related to charitable giving.

**Students Eligible for Reduced Lunches.** Gronbjerg and Paarlberg (2001) found that the percentage of children living in poverty is negatively correlated with the density of social service organizations in the region. Arthur Brooks (2005), a modern philanthropy academic, argued that not only does household income increase individual household charitable giving, but that charity and prosperity are mutually reinforcing circumstances. On the other hand, Schervish and Havens (1995) and Hodgkinson and Weitzman (1996) found a U-shaped curve, implying that giving was highest among the poor and the very rich. Corbin (1999) later found a high relationship between per capita income and the number of nonprofit social service agencies, which implies more donations to charitable interests. Ben-Ner and Van Hoomissen (1992) reported that wealthier communities had more for-profit and nonprofit entities, which can create more charitable contributions. In other words, wealthier communities are more likely to reinvest in their communities than poorer, financially burdened communities.

According to Katel (2006), relative to other income groups, poor people who donate to charity give a greater percentage of their incomes; however, those with higher incomes are more likely, as a collective, to be benefactors. According to Gronbjerg and Paarlberg (2001), communities with low income and service-dependent populations had
smaller numbers of nonprofit organizations and a limited awareness of local needs, and thus less charitable giving to these services. Cobin (1999) found that the percentage of people in a metropolitan area living at or below poverty level is negatively correlated with the growth of social services and that population living in poverty implies fewer resources and higher demands for services (Graddy and Wang 2007). Thus given the earlier literature we hypothesize that poorer communities will have lower charitable giving and specifically reduced lunch eligible students will be negatively related to charitable giving.

**Vacant Housing.** Many older urban neighborhoods have vacant lots, empty sites of old industry, and unused industrial and commercial building (Christenson and Levinson 2003). The more vacant buildings in a neighborhood, the less local and regional groups have made abandoned housing structures into productive buildings (McKnight and Kretzman 1996). Studies even show that the percentage of vacant housing produces strong correlations with homelessness, crime and other problems pointing to deterioration (McKnight and Kretzman 1996). Research suggests that residence in poverty areas is a more important determinant of mortality than income, education, or other personal measure of socioeconomic status (Krause 1996). Additionally, investigators have linked residence in deteriorated neighborhoods with greater social isolation (Krause 1996). Living in deteriorated neighborhoods is stressful (Krause 1996). Communities with more run-down, dilapidated buildings have been found to significantly impact the likelihood of injury to children, older populations, and homeless persons living in them (Krause 1996). The physical environment transmits symbolic messages that are read by the average person much like a language (Graig 1993). These meanings can impact the quality of the
interaction that takes place, including social giving (Graig 1993). When buildings are run-down and dilapidated, the images that are conveyed to others leave little room for interaction or the formation of close social ties, and also creating passive, pessimistic, and cynical neighbors (Graig 1993). Areas with high vacancy may create strain on social relationships that may impact charitable giving. Opportunities for social interaction and cues from the environment may trigger a variety of emotional responses and either facilitate or reduce charitable giving behaviors (Cohen, et al. 2003). Vacancy is a proxy for community decline. It represents a lack of investment, potential residents, and even a purposeful decision by city or county government to let certain areas go into decline. That decline impacts health and overall quality of life and thus we expect that vacant housing will have a negative effect on charitable giving.

Considering the extensive review above, we outline a set of possible circumstances and specific characteristics of settlement spaces that we believe are important to determining the amount of nonprofit donations a community receives. Some characteristics (certain regions of the country, population density, educational attainment, number of banking offices, percentage farms less than 50 acres, median home value, nonprofit density, etc. will likely create a healthy, beneficial community where giving will be high. Those places would be different than communities where problems are more prevalent (considerable population flux/instability, higher percentages of students eligible for reduced-price lunches, and vacant housing) leading to unhealthy consequences for community members, community growth where there is less charitable giving observed.
CHAPTER 3 DATA AND METHODS

This research examines the relationship between community characteristics and the level of nonprofit revenue in all counties across the United States. The research consists of national data on 501c(3) nonprofit charitable organizations as well as national data on county-level compositions obtained from U.S. Census Bureau.

Description of the Data

The unit of analysis for this research is county, as defined by the 2000 census. According to the Census Bureau, counties are the primary legal divisions within most states. In fact, most counties are functioning governmental units, whose powers and functions may vary from state to state. For example, Louisiana’s primary divisions are known as parishes and Alaska’s county equivalents consist of legally organized boroughs. In four states (Maryland, Missouri, Nevada, and Virginia), one or more cities are independent of any county organization and thus constitute primary divisions of their states; the Census Bureau refers to these places as "independent cities" and treats them as the equivalents of counties for estimates purposes. The District of Columbia has no primary divisions and the entire area is considered to be the equivalent of a county. Legal changes to county boundaries or names are typically infrequent. According to the County and City Databook 2007, there were 3,141 counties in the United States during the fiscal year 2006-2007. For this analysis, we are missing 92 counties of which were randomly left out of the population.

The research includes a cross-sectional study from the population of nonprofit organizations obtained from a privately funded company, GuideStarUSA, Inc. GuideStar, which was founded in 1994, gathers and publicizes information about nonprofit
organizations. Guidestar encourages nonprofits to share information about their organizations; nonprofits in the GuideStar database can update their report with information about their own missions, programs, leaders, goals, accomplishments, and needs. GuideStar combines the information that nonprofits supply with data from several other sources (GuidestarUSA, Inc. 2011). As a public charity itself, GuideStar provides nonprofit information to public libraries, academic researchers and instructors, and private donors. The GuideStar database includes all 501(c)(3) public charities in the IRS Business Master charities File.

To qualify as a charitable organization and thus exempt from taxation, an organization must serve a charitable purpose, not distribute net profits to those who control the organization, and refrain from political activity (O’Neill and Silverman 2002). Additionally, nonprofit groups with an annual gross receipt of less than $5,000 or those averaging less than $25,000 in gross receipts during the previous three years are not required to register or file annual reports. More importantly, religious organizations are not required to register, although many do (O’Neill and Silverman 2002).

For this research, GuideStar has provided data derived from 501(c)(3) public charities’ IRS Forms 990. The data set consists of information on all charitable organizations that have filed a single Internal Revenue Service Form 990 as a 501(c)(3) during the fiscal year 2006-2007. The IRS requires all nonreligious nonprofit organizations with $25,000 or more in expenditures to file Form 990 to qualify as a nonprofit organization (Institute for Economic Advancement 2008). Using this dataset, we aggregated the more than 250,000 nonprofit organizations to the county-level for this analysis. The dataset’s essential component for this research analysis is each nonprofit’s
revenue for the 2006-2007 fiscal year. The revenue represents the level of charitable giving the nonprofit receives from services rendered, government and foundation grants, as well as individual giving. The 2006-2007 fiscal year was selected because of both the completeness of information and the changes in nonprofit accounting that occurred after the 2007 fiscal year that made some comparisons difficult across nonprofit groups.

In order to analyze the revenues to community characteristics, county-level data is obtained from the U.S. Census Bureau, which provides data to both the 2007 County and City Data Book as well as to the Food Environment Atlas. The 2007 County and City Data Book exist as a comprehensive source of comprehensive U.S. county-level information. The Data Book includes data for all U.S. counties with a population of 25,000 or more. Information in the County and City Data Book covers the following topical areas: age, agriculture, births, business establishments, climate, construction, deaths, earnings, education, elections, employment, finance, government, health, households, housing, income, labor force, manufactures, population, race and Hispanic origin, social services, and water use. In addition, the County and City Data Book files contain a collection of data from the U.S. Census Bureau and other federal statistical bureaus, private research bodies, and governmental administrative and regulatory agencies (U.S. Bureau of the Census 2000).

The Food Environment Atlas contains food environment factors such as store and restaurant proximity, food prices, food and nutrition assistance programs, and community characteristics that interact to influence food choices and diet quality (U.S. Department of Agriculture 2010). The Food Environment Atlas includes over 160 indicators of the food environment. The food indicators include health and well-being aspects of indicators of
the community’s success in maintaining healthy diets, such as: food insecurity; diabetes and obesity rates; and physical activity levels (U.S. Department of Agriculture 2010). These data are collected from a variety of different sources with different time frames and not all are available for the 2006-2007 fiscal year (U.S. Department of Agriculture 2010). In those cases, we attempted to select variables with a time frame very close to the timeframe that the charitable giving data were collected.

**Measurement**

**Dependent Variable**

In the proposed analysis, the dependent variable is the total dollars per capita acquired by contributions to charitable organizations per 10,000 population. To measure charitable giving in a county, we use "charitable organizations' revenues per capita"--the total revenue by all charitable organizations serving a county in 2006-2007 and then divided that amount by the county's population. The nonprofit revenue comes primarily from four sources: payments for services, government, private giving, and fundraising. Payments for services make up the largest revenue category, followed by government and private charity. Payments for services include school and college tuition, tickets to artistic performances, and fees for counseling services. Additionally, the revenue profile differs from one subsector to another—social services and health care receives the most support from government; religion and advocacy receive the most from independent contributions; and mutual benefit groups (clubs) receive revenue from membership fees and investment income (O’Neill and Silverman 2002). This variable provides both an aggregate assessment of giving controlling for the county population.
The original dependent variable for this study is highly skewed likely due to the abnormally large amount of charitable giving found in the northeastern states that have fewer counties and higher population and nonprofit density. There are a number of important sociological research variables that do not meet the assumptions of parametric statistical tests (linear regression); they are not normally distributed and/or the variances are not homogenous, which may lead to misleading results. Quantitative research on size data such as revenue amounts has been known to apply data transformations. Data transformations are an important tool for the proper statistical analysis of sociological data. The skewness in our dependent variable is potentially confounding results; therefore we introduce a natural log (ln) into the dependent variable. The natural log of the dependent variable did not change the regression results, but instead clearly had an impact on normalizing the dependent variable.

*Independent Variables*

We examine three sets of independent variables: compositional characteristics, organizational characteristics, and deterioration characteristics. The proposed project emphasizes the importance of these structural dimensions in determining giving in communities. A detailed discussion of these three sets of variables can be found below; all indicators of a community’s composition are measured at the interval/ratio level.

**Community Composition**

Community composition details the aggregate community characteristics of a community. The three variables used to assess and operationalize community’s composition include: region of the country, population density, and persons with high school degrees or higher in a county.
1) Region of country (Northeast)

The Census Bureau delineates two sets of sub-national areas that are composed of
states. This two-tiered system of areas consists of 9 census divisions nested in 4 census
regions. For this analysis, we examine charitable giving across the four census regions.
The Northeast region includes the New England division: Connecticut, Maine,
Massachusetts, New Hampshire, Rhode Island, and Vermont; and the Middle Atlantic
division: New Jersey, New York, and Pennsylvania. The Midwest region includes the
East North Central division: Illinois, Indiana, Michigan, Ohio, and Wisconsin; and the
West North Central division: Iowa, Kansas, Minnesota, Missouri, Nebraska, North
Dakota, and South Dakota. The South region includes the South Atlantic division:
Delaware, District of Columbia, Florida, Georgia, Maryland, North Carolina, South
Carolina, Virginia, West Virginia; the East South Central division: Alabama, Kentucky,
Mississippi, and Tennessee; and the West South Central division: Arkansas, Louisiana,
Oklahoma, and Texas. The West region includes the Mountain division: Arizona,
Colorado, Idaho, Montana, Nevada, New Mexico, Utah, and Wyoming; and the Pacific
division: Alaska, California, Hawaii, Oregon, and Washington. Given the general
distribution of charitable revenue across these regions, we coded the region variable to a
binary where 1 = Northeast region and 0 = Non-Northeast regions.

2) Population Density--Persons per square mile of land area, 2006

The U.S. Census Bureau defines land area as the size in square units of all areas
designated as land in the national geographic database. Person per square mile is the
average number of inhabitants per square mile of land area (U.S. Bureau of the Census
2000). This data is derived by dividing the total number of residents by the number of
square mile of land area in the specified geographic area (for this study, county limits). Land area was calculated from the specific set of boundaries recorded for the entity (in this case, counties, which were then aggregated to metropolitan totals) in the Census Bureau's geographic database. Land area measurements are originally recorded as whole square meters (to convert square meters to square kilometers, divide by 1,000,000; to convert square kilometers to square miles, divide by 2.58999; to convert square meters to square miles, divide by 2,589,988). For area measurement purposes, features identified as "intermittent water" and "glacier" is reported as land area.

3) Percent of population high school graduate or above, 2000

The U.S. Census Bureau defines high school graduates or higher as people whose highest degree was a high school diploma or its equivalent, people who attended college or professional school, and also persons who received a college, university, or professional degree. For further clarification, persons who reported completing the 12th grade but not receiving a diploma are not considered high school graduates. In addition, these data only include persons 25 years old and over. The percentages, thus, are obtained by dividing the counts of graduates by the total number of persons 25 years old and over (U.S. Bureau of the Census 2000). These data were collected on the long census form. The data, therefore, are estimates and subject to sampling variability.

Organizational Composition

The organizational composition describes the organizational structure of large entities inside a community. The four variables used to assess and operationalize organizational composition include: the number of non-profits, the number of banking offices, percentage of farms less than 50 acres, median home value, and the rate of community hospital beds in a county.
1) Number of charitable nonprofits, 2007

The number of nonprofits in this study is based on the GuidestarUSA dataset. After aggregating all of the charitable organizations to the aggregate level, SPSS created a count variable for every organization per FIPS code (United States county code). As stated above, a charitable organization is a type of nonprofit organization, which differs from other nonprofit organizations that focus on other goals besides activities serving the public interest or common good. This difference can be found with its tax-exemption status, under section 501(c)(3) of the Internal Revenue Code. In order to form a charitable organization, state requirements and procedures must be followed, which differ across the nation. Effectively, the actual number of charitable nonprofits depends on the fulfillment of both requirements of state law and requirements of the IRS.

2) Percentage of farms less than 50 acres, 2002

Census results are based on data obtained from individual “farm” operators about their respective “farms” (United States Department of Agriculture 2002). Land comprising the farm need not be a single contiguous tract; it can consist of several separate pieces of land. The definition of a farm used in the 1997 Census of Agriculture was any place from which $1,000 or more of agricultural products were produced and sold, or normally would have been sold, during the census year (United States Department of Agriculture 2000). Agricultural census is conducted every five years, which provides a detailed portrait of U.S. farms and ranches and the people who operate them (United States Department of Agriculture 2008). The land involved must be used for or connected with agricultural operations, and must be operated under the day-to-day control of one individual or management (e.g., partnership, corporation).
unit for the agriculture census has always been the individual agricultural operation, i.e., the farm or ranch. For the 2002 Census of Agriculture, an agricultural operation not only included the traditional commodities such as livestock, poultry, or other animal specialties and their products, fruits, vegetables, greenhouse or nursery products, but also included cut Christmas trees, maple sap gathering, and short-term woody crops.

3) *Homeowners median home value in dollars, 2000*

Median value means that one-half of all homes were worth more and one-half were worth less. These values refer to specified owner-occupied housing units; that is, owner-occupied single-family homes on less than 10 acres without a business or medical office on the property (U.S. Bureau of the Census 2003). The value of a home is the owner’s estimate of what the house and lot would sell for if it were on the market. In the Census 2000, only a sample of households were asked the home value question, whereas all households were asked that question in 1990. The final value of a property is the result of a four-step calculation: the value is determined through specification (the "specified value"), then resolved into a value that is used for inheritance (the "computed value"), then converted into an absolute value if necessary (the "used value"), and finally transformed according to the limitations of the local environment (the "actual value"). Property values reflect the probable price of a given property at a given time. The actual sale price of a given piece of property may be higher or lower than the appraised value. Property values also play an important role in areas with property tax, as owners are required to pay extra tax to local authorities depending on the estimated property value. Professional appraisers working for different entities (real estate companies, tax-collecting departments) use the sales history and trends of similar properties in nearby
areas to estimate the value of a given property, as well as interviews and tax histories.

4) Rate of beds in community hospitals per 100,000 persons, 2004

Hospital beds per 100,000 persons is an indicator of hospital capacity that is frequently used to conduct international and intra-national comparisons of the availability of health care services. “Licensed beds” are the number of beds licensed by DHS, Licensing and Certification Division on the last day of the reporting period. This includes beds placed in suspense. There are six licensed bed classifications: General Acute Care, Chemical Dependency Recovery Hospital, Acute Psychiatric, Skilled Nursing, Intermediate Care, and Intermediate Care/Developmentally Disabled. There are nine bed designations within the General Acute Care Classification: Medical/Surgical, Perinatal, Pediatric, Intensive Care, Coronary Care, Acute Respiratory Care, Burn, Intensive Care Newborn Nursery, and Rehabilitation Care. The totals included all classifications by hospital. “Licensed bed days” are the number of licensed beds multiplied by the number of days in the reporting period. This calculation reflects changes in actual bed capacity during the year and is used to calculate occupancy rates (Patient (Census) Days/Licensed Bed Days = Occupancy Rate). Taking the licensed bed days by hospital and dividing by the estimated number of persons residing in the county then multiplying by 100,000 calculated “Licensed bed days per 100,000 populations.” Hospital beds per 100,000 populations are an indicator of the availability of health care services and hospital capacity relative to the general population (The Healthy Development Measurement Tool 2006).
**Deterioration Variables**

The problem composition, which may create a decline in amounts of charitable giving in a county, details the possible negative factors that may affect the amount of charitable giving. The four variables used to assess and operationalize deterioration include: households with children less than 18 years of age, percentage population change from 1990 to 2000, percentage students eligible for reduced-price lunches, and the percentage of vacant housing in a county.

1) *Infant mortality rate, 2004*

Infants are children under twelve months of age. The infant mortality rate is the proportion of infant deaths to every thousand live births. Although we obtained this variable from the United States Census 2000 file, infant mortality is originally obtained from information from death certificates linked to information from birth certificates for each infant less than one year of age who died in the 50 states and the District of Columbia (Mathews, Menacker, and MacDorman 2004). Each state provides the Centers for Disease Control and Prevention’s National Center for Health Statistics (NCHS) matching birth and death certificate number for each infant death in a given county, per state. Additionally, state additions and corrections were incorporated, and 99 percent of all infant death records were successfully matched to their corresponding birth records (Mathews, Menacker, and MacDorman 2004).

2) *Percentage population change, 1990-2000*

Dividing the difference between the population in 2000 and 1990 by the 1990 population derives the percent population change between 1990-2000. People in 2000 were counted at their “usual residence”—the place where the person lives and sleeps...
most of the time, not necessarily the same as the person’s voting residence or legal
residence. Additionally, noncitizens that are living in the United States are included,
regardless of their immigration status. Regardless of having multiple residences, being
temporarily away, or not having a usual residence were counted where they were staying
on Census Day (U.S. Bureau of the Census 2000). Place of residence was derived from
answers to questions that were asked of all people in Census 2000.

3) Percentage students eligible for reduced-price-lunch, 2006

The percentage of students eligible to receive reduced-price lunches is derived
from the data provided by the National School Lunch Program (NSLP), a federally
assisted meal program operating in public and nonprofit private schools and residential
childcare institutions. The NSLP provides nutritionally balanced, low-cost lunches to
children every school day. School districts and independent schools that take part in the
lunch program get cash subsidies and donated commodities from the U.S. Department of
Agriculture (USDA) for every meal they serve. The reduced lunch must meet Federal
requirements. To qualify for reduced-price lunches, children must be from families with
incomes between 130 percent and 185 percent of the poverty level, for which students
can be charged no more than 40 cents per meal. In the late 2000’s, 130 percent poverty
level is $28,665 for a family of four and 185% poverty level is $40,793 (Office of Public
Affairs 2010).

4) Percentage of vacant housing

A housing unit is considered vacant if no one was living there at the time of the
survey. This excludes the homes of any usual occupants that were temporarily absent; it
includes homes that are intended for year-round use where sole occupants were persons
who usually live elsewhere (U.S. Bureau of the Census 1993). In addition, a vacant unit may be one which is entirely occupied by persons who have a usual residence elsewhere. New units not yet occupied are classified as vacant housing units if construction has reached a point where all exterior windows and doors are installed and final usable floors are in place. Vacant units are excluded if they are exposed to the elements, that is, if the roof, walls, windows, or doors no longer protect the interior from the elements, or if there is positive evidence (such as a sign on the house or block) that the unit is to be demolished or condemned. Vacant housing excludes quarters being used entirely for nonresidential purposes, such as a store or an office, or quarters used for the storage of business supplies or inventory, machinery, or agricultural products. Vacant sleeping rooms in lodging houses, transient accommodations, barracks, and other quarters not defined as housing units are not included in the statistics in this report (U.S. Bureau of the Census 2000).

A housing unit is a house, an apartment, a group of rooms, or a single room occupied or intended for occupancy as separate living quarters. Separate living quarters are those in which the occupants do not live and eat with other persons in the structure and which have direct access from the outside of the building or through a common hall. For vacant units, the criteria of separateness and direct access are applied to the intended occupants whenever possible. If the information cannot be obtained, the criteria are applied to the previous occupants. Tents and boats are excluded if vacant, used for business, or used for extra sleeping space or vacations. Vacant seasonal/migratory mobile homes are included in the count of vacant seasonal/migratory housing units. Living quarters of the following types are excluded from the housing unit inventory:
Dormitories, bunkhouses, and barracks; quarters in predominantly transient hotels, motels, and the like, except those occupied by persons who consider the hotel their usual place of residence; quarters in institutions, general hospitals, and military installations except those occupied by staff members or resident employees who have separate living arrangements. Data on vacant units are needed by federal and local agencies in order to evaluate the overall state of housing markets. Homeownership rates have served as an indicator of the health of the Nation’s economy for decades. The federal government uses this information to allocation Section 8 and other housing program subsidies that assist Americans to afford decent, safe, and sanitary housing. Local organizations use the information to assess neighborhood stability and to plan road, health, and transportation improvements in their communities.

**An Analytical Framework for Assessing County-Level Charitable Giving**

The analyses are conducted in order to test specific hypotheses while attempting to understand the multidimensional relationships between the sets of community-level variables. The analytic strategy first examines descriptive statistics and bivariate correlations to support the use of the independent variables in the regression model as well as to provide a snapshot portrait of the types of relationships between the community composition variables and the dependent variable. This preliminary examination of the descriptive statistics of the variables provides basic information while reinforcing the importance of examining specific relationships between the independent and dependent variables. In order to support the notion of location differences based on varying community compositions, we examine regional charitable differences. A one-way ANOVA (analysis of variance) tests between group differences among the Northeast,
South, Midwest, and Western portions of the country. After examining bivariate relationships among community composition and revenue, a hierarchical, three-block regression model is developed to specifically examine the impact of the community composition variables on the charitable giving variable.

The core of the analysis examines the individual variables and the block effects of population composition, organizational composition, and deterioration composition variables on charitable giving. We use regression analysis (OLS) to help identify separate independent variables’ effects on charitable giving as well as the group of variables’ effects on charitable giving. The first block of variables entered consists of three community composition variables, which represent proxies for the positive community characteristics found in each county. The second block of variables includes organizational variables that represent proxies for the organizational context found in each county. The third block of variables includes the deterioration variables, which represent proxies for decline in each county.
CHAPTER 4 RESULTS

The research questions that this study addresses are as follows: Is philanthropy community driven? Are there regional differences? Is the composition of community a driving force in philanthropic giving at the aggregate level? In order to address these questions we first, provide a brief discussion of the descriptive characteristics of the predictor and dependent variables, followed by an examination of the bivariate correlations that portray the relationship between independent and dependent variables. A one-way ANOVA helps to demonstrate the regional differences in charitable giving, and finally, a hierarchical block regression model is applied to the predictor variables. In simpler terms, these statistical techniques will help determine the directionality of the relationships between variables, significance of the predictor variables on the dependent variable, and finally the overall impact of community on charitable giving.

Descriptive Statistics

Table 1 summarizes the descriptive statistics (mean and standard deviation) of the independent and dependent variables among this population of counties. Across U.S. counties, the natural logarithm of nonprofit revenue averages out at about $15,890,000. All of the indicator variables are interval/ratio level variables, except region of the country. The average value is .071, where 1 equals Northeast and all others (South, Midwest, and West) equal 0. The average density of counties (persons per square mile) is equal to about 259 persons per square mile. The average percentage of educated persons (high school graduate or higher) of U.S. counties is about 78 percent.

See Table 1 on page 63
Of the organization variables, the average number of nonprofits in a county is about 83. Percentage of farms less than 50 acres averaged out at about 33 percent. The median value of home in dollars in U.S. counties is $85,320. The average rate of beds in community hospitals per 100,000 persons is 397.

Of the deterioration variables, the average rate of infant deaths was about 9.14. The average percentage of population change from the year 1990 to the year 2000 is 3.15 percent. Additionally, the average percentage of students eligible for reduced-price lunches is about 9.42 percent. The average percentage of vacant housing across American counties is 14.05 percent.

**Bivariate Relationships**

For each community indicator variable, one-tail Pearson correlations are examined. Table 2 presents the bivariate correlations for the LN Nonprofit revenue variable alongside each of the community, organizational, and deterioration composition variables. For the charitable giving model, there are twelve independent variables. All of the variables except percentage population change 1999-2000 were significantly correlated with the natural logarithm nonprofit revenue variable at the .01 level.

**See Table 2 on page 64**

As expected, all of the community composition block variables (region of the country, persons per square mile, and percentage high school and above) are positively correlated with nonprofit revenue. Percentage high school and above has a moderate, positive correlation with nonprofit revenue (.324**). Similar to the community composition block, the organizational block variables produced expected results; they are positively correlated with nonprofit revenue. Median home value (.297**) and number of
nonprofits (.296**) are moderately correlated with nonprofit revenue. Finally, nearly all of the deterioration composition variables are negatively correlated with nonprofit revenue as expected, excluding percentage population change 1990-2000.

**ANOVA**

Figure 2 and Table 3 present the ANOVA results for the community composition variable, Region of the United States. Means, mean differences between regions, the number of cases per region, the F-Test value, and its significance are all reported in Table 3. The purpose of the one-way ANOVA technique was to determine if there was a significant difference in nonprofit charitable revenue across regions. Post hoc (Scheffe) testing was done to determine precisely which groups were different from one another. As seen in Figure 2, there is more nonprofit revenue found in the Northeast than in the South, Midwest, and West. The post hoc results in Table 3 indicate there is a significant different between every region and the Northeast. In fact, there were revenue differences between all the regions except between the West and Midwest regions, possibly establishing some structural similarities. The mean difference between South and Northeast is the greatest significant mean difference; preliminary examination indicates an important distinction in giving across counties in the United States.

**See Figure 2 on page 65 and Table 3 on page 66**

**Multivariate Relationships**

After detailing the independent variable’s relationship to charitable giving and noting the regional differences in nonprofit charitable revenue in the United States, each composition block was entered into the regression equations for the community philanthropy model. A three-block regression was used to determine which factors
contributed significantly to charitable revenue in nonprofit organizations. The blocks were added to the equation in order to determine the extent to which each block and the individual variables were associated with LN nonprofit charitable revenue in each county. The number of cases counted for this regression decreased from the total number of cases in the dataset (N=1976). Multivariate relationships for the model are presented in Table 4.

For the first block of indicator variables, we entered all of the community composition variables (region of U.S., population density, percentage of persons with a high school education or above), and found all the variables to be significant (p<.000). Additionally, the community composition variables individually have a positive relationship with LN nonprofit charitable revenue. Overall, this first block of variables contributed approximately 22 percent to the explained variance of nonprofit charitable revenue. Percentage high school or higher had the strongest effect in the entire model (β =.369) Region of the United States also was significant, again replicating what was already evident in the earlier ANOVA. As expected, all community composition variables were positive and significant in the model.

See Table 4 on page 67

In the second block, we added the organizational composition variables (number of charitable nonprofits, percentage of farms < 50 acres, median home value in dollars, and rate of beds in community hospitals per 100,000 persons) to the community composition variables. Although all of the organizational composition variables were individually significant in the model, the community composition variable, population density, was no longer significant. Additionally, the R² increases from .224 to .281, with
organizational composition variables nearly contributing an additional six percent more to the explained variance and thus, suggesting that the addition of the organizational composition to the model acted as an important compositional element to understanding variation across counties. The strength of the individual compositional variables decreased slightly, making population per square mile non-significant. Region of the U.S. and percentage high school and higher were very similar to the first block; the new organizational composition variables had limited strengths compared to the first block. The number of charitable nonprofit organizations was the strongest organizational effect ($\beta = .185$), followed by rate of beds in community hospitals per 100,000 persons ($\beta = .151$). Moreover, percentage of farms <50 acres and median home value in dollars were relatively smaller in effect size ($\beta = .066$) and ($\beta = .047$) respectively. As originally hypothesized, all organizational composition variables were positive and significant in the model.

In the third and final block, we added the deterioration variables (rate of infant deaths, percentage population change 1990-2000, and percentage students eligible for reduced-price lunches, and percentage of vacant housing) to the prior blocks of and the variables. The organizational composition variables all remain significant, except for median value of homes. Additionally, among the original compositional variables persons per square mile remained non-significant ($\beta = -.001$). Among the deterioration variables, all were significant in the model. All of the regression coefficients were negative as expected. Finally, $R^2$ increased from .281 to .316, contributing an additional three percent (nearly 32 percent total) to the explained variance, and as expected making a significant contribution to understanding variation in nonprofit charitable revenue across counties.
The rate of infant death had the largest effect among the deterioration variables \( (\beta = -0.132) \). Percentage population change 1990-2000 had the second highest strength at \( (\beta = -0.107) \). Finally, the percentage of vacant housing contributed the least to the deterioration block \( (\beta = -0.042) \), although it was still statistically significant. As hypothesized, all deterioration variables were negative and significant in the model.
CHAPTER 5 DISCUSSION

Current research on nonprofit charitable revenue and community characteristics is essentially nonexistent, which makes this research not only novel, but important to understanding community growth and development from both a sociological and practical perspective. There have been a number of research studies that have promised to show the relationship between community health and growth and charitable giving; however, all are lacking in a comprehensive analysis of what factors in a community significantly impact charitable giving. In our study, we found significant relationships between community characteristics and nonprofit charitable giving, which clearly varied across regions and counties. This research emphasizes the importance of a communities’ ability to service its members and reduce human suffering while also providing public services.

As the multivariate results show, any debate on whether or not community deterioration is actually occurring is clearly resolved when looking at the level of charitable nonprofit revenue across counties (Putnam 2000; Van Deth 2008). As we added the community deterioration characteristics, the model became stronger, thus one can assume that there are negative aspects to a community that impact the level of services and activities a community receives, lessening the strength, community safety-net (Wolpert 1994), and communities’ capacity to provide the quality of life that people need (McKnight and Kretzmann 1996).

Alternatively, as we added financial institutions, pre-existing nonprofits, home values, local community hospitals, and small farms, the power of the model significantly increased, suggesting that the more financially sound a community is (higher home
values), the better equipped they are in providing services in their community (Katel 2006). Additionally, the more services that a community provides, through the nonprofits conduit and more availability in community hospitals beds, the more likely communities will be successful in reducing human suffering and improving quality of life (McKnight and Kretzmann 1996; Streten 1997; Wiewel and Hunter 1985). These characteristics are all important aspects of a community that should be re-created in other communities, not because of same set of elitist ideals, but rather because in order to be a competitive community, certain changes need to occur. Likely, however, this competition may decrease as more communities become better equipped to provide services to their residents.

Given the current research gap on community composition’s impact on charitable giving, this research addresses how specific compositional, organizational, and deterioration factors influence nonprofit charitable revenue with counties across the United States. A theory of spatial and human ecological philanthropy was developed as the underlining framework for testing specific hypotheses about county difference in charitable giving. In order to address the research questions, we developed a multivariate model that included community composition, organizational composition, and deterioration variables and their impact on the outcome variable, charitable giving within counties. We performed a means of difference test to determine if charitable giving differences existed across regions, and our results clearly show that place matters. Northeast charitable giving was higher and significantly different than any other region as indicated in our earlier analysis.
As we noted in the discussion of multivariate results, once we entered the second block of variables (organizational composition), population density (person per square mile) was no longer significant. Additionally, once we entered the deterioration block variables, it remained non-significant and the regression coefficient was actually negative not positive as we originally expected. A number of studies have reported a relationship between overcrowding and negative health consequences (Krause 1996), suggesting that as more health-related predictor variables were introduced into the equation, the more likely health variables would play an important role in impacting population density.

A key factor, as noted in the literature review, ‘health’ became an issue impacting place-based variables (Krause 1996). The level of deterioration in the community, as seen in this study, revolves around stressful life circumstances and health-related illnesses. Moreover, the community and organizational compositions that were hypothesized to be positive seemed to create healthier lifestyles and a higher quality of living for community members. Further research should include more of a health-place-based emphasis on the level of nonprofit charitable giving.

Consistent with Lewis Mumford’s (1961) argument, communities do seem to serve as containers that concentrate economic activities within bounded spaces such as counties. These communities that we examined have created their own social spaces in which residents live out their lives, seemingly attaching meanings to it based on community level factors, which in turn, appear to influence nonprofit giving, in some counties more than others. In terms of the Chicago School’s ideology around human ecology (Bounds 2004), this research seems to suggest that some counties may have more nonprofit revenue per capita, which provides more services to community members,
enhancing community growth. Relating back to Marx’s notion of evolutionary inevitability, this research shows how some communities are receiving less nonprofit charitable revenue than others, resurfacing this idea that “places” are more segregated than ever, seemingly based on structural community factors (Berkowitz, 1991; Levitan and Feldman 1991; Wolpert 1995). Viewing the county/community as a social organism with the collective behavior of donating and working towards capital in nonprofit organizations creates a competitive nature to community progress. This collective behavior appears to be governed by the competitive struggle for resources—for some, survival. Insufficient nonprofit charitable giving has unmistakable symptoms such as an insufficient safety net, a community life devoid of richness and variety, and also possibility of mass migration to more abundant community (Berkowitz, 1991; Levitan and Feldman 1991).

Although organized philanthropy has slowly progressed into what it is today, it still manages to have opposing forces at play in eliciting nonprofit charitable revenue—forces being particular community characteristics. In addition, this transformation from rural to urban society has evidently created areas in which government, policy, and marketplaces also play a role in the elicitation of nonprofit charitable revenue. What does the future hold for philanthropy? More specifically, what can this research do for the future of philanthropy? With empirical research like this study, policy makers and grant makers will be able to put philanthropic dollars at work where they are needed the most (Marwell 2004; Ridings 1997). As one example, if the entire infant population across the nation could have experienced equally distributed amounts of wealth, thousands more infants would have survived each year (Gortmaker 1979). Further, this research proposed
policy work as well as potential wealth redistribution as implications of its findings, thus policy makers are one step closer to supporting the notion of transferring wealth at the local level versus the federal level in order to improve the health and wealth of communities (Wolpert 1994).

If communities are indeed competing for resources and it is viewed as the natural order of society as human ecological sociologists have surmised, then how would wealth redistribution and utopian ideas of equality across the nation fit into the natural order of the social environment? Does this research contribute to Marxist and/or Darwinian ideas of competition and power or is there another way of removing this competition from the current social order of the distribution of resources in densely populated areas? Like many contemporary sociologists argue, not all of social life on any given social space can be explained through ecological foundations.

**Limitations**

This study makes an important contribution to understanding community and charitable giving but is not without limitation. First, not all counties are consistent with what one assumes as his or her own community to which he or she belongs. For example, some philanthropic organizations include multiple counties, not just one. This study is about community giving and looks at nonprofit revenues, which includes government grants, foundational funds, income from services, and also individual giving. For further information on just individual giving, a different dependent variable would need to be used. In this study, we were unable to procure the details of each organization (what type of organization it is or who exactly it serves). More research would need to include a detailed description of the number and types of organizations. In addition to the lack of
details of each organization, we were only given data from one fiscal year, and as research has suggested, charitable organizations tend to fluctuate in not only filing the 501(c)(3) form, but also retaining resources to provide services to the community every year. Some organizations do not file yearly; some organizations’ revenue fluctuates yearly. A longitudinal study would have been better able to show the changing effect of community alteration on philanthropic giving, which may be an even better indicator of giving and community growth or decline.

More importantly, utilizing the theory and framework of social capital as an intermediating variable between the community compositions and charitable revenue would perhaps provide a better refocus on community health based on social connections, community norms, communal trust, and social networks which have been known to create more charitable giving (Putnam 2000). Thus, a more detailed analysis on community culture would have been better able to differentiate between communities in what makes for a good community. For example, one community may not donate funds because it may primarily be a volunteering community in which much more in-depth personable actions occur to create community change or benefit community health. Additionally, a community like New York City, which is made up of multiple different cultures and social norms may also have different values and attributes that contribute to the level of giving versus a much smaller community made up of mostly one culture. Therefore, comparing one community to another based on community aspects may not be enough to compare on because of various cultures, histories, political and economic climate, and belief systems.
Despite the limitations, this study still makes a potentially path-breaking contribution toward understanding the complicated nexus of community-level compositions and charitable giving. Finally, like so many other sociological studies have emphasized, societal growth and existence differs dramatically across terrains because ‘place matters.’
REFERENCES


APPENDIX

Figure 1. Theoretical Model for Charitable Giving
Table 1. Descriptive Statistics for Model Variables

<table>
<thead>
<tr>
<th></th>
<th>Mean</th>
<th>S.D.</th>
</tr>
</thead>
<tbody>
<tr>
<td>LN Nonprofit Revenue</td>
<td>15.89</td>
<td>1.65</td>
</tr>
<tr>
<td><strong>Community Composition</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Region of U.S. (Northeast=1)</td>
<td>.071</td>
<td>.257</td>
</tr>
<tr>
<td>Persons Per Square Mile</td>
<td>258.64</td>
<td>1,743.50</td>
</tr>
<tr>
<td>Percentage High School or Higher</td>
<td>77.49</td>
<td>8.64</td>
</tr>
<tr>
<td><strong>Organizational Composition</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Number Charitable Nonprofits</td>
<td>83.15</td>
<td>280.72</td>
</tr>
<tr>
<td>Percentage Farms Less Than 50 Acres</td>
<td>33.18</td>
<td>18.31</td>
</tr>
<tr>
<td>Median Value of Home in Dollars</td>
<td>85,320.56</td>
<td>45,018.85</td>
</tr>
<tr>
<td>Rate of beds in community hospitals per 100,000 persons</td>
<td>397.07</td>
<td>429.41</td>
</tr>
<tr>
<td><strong>Deterioration Composition</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Infant Mortality Rate</td>
<td>9.14</td>
<td>6.48</td>
</tr>
<tr>
<td>Percentage Population Change 1990-2000</td>
<td>3.15</td>
<td>9.20</td>
</tr>
<tr>
<td>Percentage Students Eligible for Reduced-Price Lunches</td>
<td>9.42</td>
<td>3.33</td>
</tr>
<tr>
<td>Percentage of Vacant Housing</td>
<td>14.05</td>
<td>9.56</td>
</tr>
<tr>
<td></td>
<td>LN Nonprofit Revenue</td>
<td>1</td>
</tr>
<tr>
<td>-----</td>
<td>----------------------</td>
<td>---</td>
</tr>
<tr>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Community Composition</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Region of U.S.</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Persons Per Square Mile</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>Percentage High School or Higher</td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>Organizational Composition</td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>Number Charitable Nonprofits</td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>Percentage Farms Less Than 50 Acres</td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>Median Value of Home in Dollars</td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>Rate of beds in community hospitals per 100,000 persons</td>
<td></td>
</tr>
<tr>
<td>11</td>
<td>Deterioration Composition</td>
<td></td>
</tr>
<tr>
<td>12</td>
<td>Infant Rate Mortality</td>
<td></td>
</tr>
<tr>
<td>13</td>
<td>Percentage Population Change 1990-2000</td>
<td></td>
</tr>
<tr>
<td>14</td>
<td>Percentage Students Eligible for Reduced-Price Lunches</td>
<td></td>
</tr>
<tr>
<td>15</td>
<td>Percentage of Vacant Housing</td>
<td></td>
</tr>
</tbody>
</table>
Figure 2. ANOVA Weighted Charitable Revenue

![Bar chart showing mean charitable revenue by region within the United States.](chart.png)

**United States Region**
- Northeast: 17.37
- South: 15.49
- Midwest: 16.09
- West: 16.02
Table 3. Variation in Charitable Giving Across U.S. Regions.

<table>
<thead>
<tr>
<th>Source</th>
<th>N</th>
<th>Northeast (17.37)</th>
<th>South (15.50)</th>
<th>Midwest (16.09)</th>
<th>West (16.02)</th>
<th>F</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Northeast</td>
<td>217</td>
<td>--</td>
<td>-1.87*</td>
<td>-1.28*</td>
<td>-1.35*</td>
<td>100.25</td>
<td>&lt;.000</td>
</tr>
<tr>
<td>South</td>
<td>1431</td>
<td>1.87*</td>
<td>--</td>
<td>.592*</td>
<td>.524*</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Midwest</td>
<td>969</td>
<td>1.28*</td>
<td>-.592*</td>
<td>--</td>
<td>-.067</td>
<td></td>
<td></td>
</tr>
<tr>
<td>West</td>
<td>439</td>
<td>1.35*</td>
<td>-.524*</td>
<td>.067</td>
<td>--</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*p<.05; **p<.01 (One-Way ANOVA F-Test)
<table>
<thead>
<tr>
<th>Variables</th>
<th>Model 1</th>
<th>Model 2&lt;sup&gt;a&lt;/sup&gt;</th>
<th>Model 3&lt;sup&gt;a&lt;/sup&gt;</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>b</td>
<td>(β)</td>
<td>b</td>
</tr>
<tr>
<td><strong>Community Composition</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Region of U.S. (Northeast=1)</td>
<td>.936** (.186)</td>
<td>.886** (.176)</td>
<td>.744** (.148)</td>
</tr>
<tr>
<td>Persons Per Square Mile</td>
<td>.000** (.116)</td>
<td>.000 (.000)</td>
<td>-.000 (-.001)</td>
</tr>
<tr>
<td>Percentage High School or Higher</td>
<td>.065** (.369)</td>
<td>.055** (.315)</td>
<td>.052** (.297)</td>
</tr>
<tr>
<td><strong>Organizational Composition</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Number of Charitable Nonprofits</td>
<td>.001** (.185)</td>
<td>.001** (.165)</td>
<td></td>
</tr>
<tr>
<td>Percentage Farms Less Than 50 Acres</td>
<td>.005** (.066)</td>
<td>.005** (.067)</td>
<td></td>
</tr>
<tr>
<td>Median Value of Home in Dollars</td>
<td>.000* (.047)</td>
<td>.000 (.027)</td>
<td></td>
</tr>
<tr>
<td>Rate of beds in community hospitals per 100,000 persons</td>
<td>.001** (.151)</td>
<td>.001** (.164)</td>
<td></td>
</tr>
<tr>
<td><strong>Deterioration Composition</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Infant Mortality Rate</td>
<td>-.017** (-.107)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Percentage Population Change 1990-2000</td>
<td>-.048** (-.097)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Percentage Students Eligible for Reduced-Price Lunches</td>
<td>-.008* (-.042)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Percentage of Vacant Housing</td>
<td>-.038** (-.132)</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Constant</strong></td>
<td>11.056</td>
<td>11.127</td>
<td>12.356</td>
</tr>
<tr>
<td>d.f.</td>
<td>3</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>R&lt;sup&gt;2&lt;/sup&gt;</td>
<td>.224</td>
<td>.281</td>
<td>.316</td>
</tr>
</tbody>
</table>

*<sup>p</sup>&lt;.05, **<sup>p</sup>&lt;.01
<sup>a</sup><sup>p</sup>&lt;.05; Hierarchical F-test for R<sup>2</sup> change