

Neighborhood Governments and their Role in Property Values*

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ABSTRACT

Today, more U.S. citizens live in neighborhoods governed by homeowner or neighborhood associations than in any period of American history. These neighborhood governments vary widely in their strength and scope of activities. Some associations are creations of suburban housing developers, while other associations develop from grassroots efforts by neighborhood residents. Nevertheless, presidents of both homeowner and neighborhood associations cite the preservation and improvement of property values as one of their association's main goals. Recent research has only examined the effects of homeowner associations (HOAs) on house prices, and fails to account for the endogenous relationship between property values and form of governance. In this paper, I use a form of instrumental variable regression to study the effects of homeowner and neighborhood associations on property values. I find that HOAs increase property values, while neighborhood associations exert no influence on property values.

KEYWORDS: Neighborhood associations, homeowner associations, RCAs, house prices, property values

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Introduction

Over the recent past, scholars of urban politics have noticed a “quiet revolution” (Barton and Silverman 1994) in the development and evolution of micro-level governments¹(Beito, Gordon, and Tabarrok 2002; Nelson 1999), which have over an estimated 50 million U.S. residents living within their jurisdictions (Community Associations Institute 2003; McCabe 2005). What effect do these neighborhood-level governments, also known as residential community associations (RCAs),² have on the property values within their jurisdiction?

Innovations in technology initially allowed Americans to abandon rural living and increasingly move into cities and suburbs during the 20th Century (Vogel and Harrigan 2007). As citizens settled into communities, the nature of urban living required that local governments respond by providing basic public goods and services. However, scholars have noted that such responsibilities do not necessarily have to be addressed by local governments through city and county councils/commissions (MacCallum 1965). Supporters of the devolution of some typical municipal powers and services to RCAs argue that through fiscal equivalency, these smaller entities are in a better position to use resources efficiently. Citizens may increase their demand to live in the successful communities, thus increasing the value of housing in that neighborhood. The purpose of this study is to understand the role RCAs play in affecting property values, and if different types of associations (neighborhood v. homeowner associations) are more successful in achieving this goal.

¹Micro-level governments refer to governing institutions with jurisdictions smaller than the city or municipal level. Some examples include special districts, advisory boards, homeowner associations (HOAs), neighborhood associations, etc. The research presented in this paper focuses on the latter-two forms of RCAs.

²“Residential community associations” (RCAs) is a term that carries multiple meanings. The legal literature only considers HOAs as residential community associations. Much of the political science literature allows the term to also include neighborhood associations. For the purpose of this study, I use “residential community associations” (RCAs) to refer to both neighborhood and homeowner associations. These organizations have their respective differences, and when necessary, I will refer to them individually instead of using the term “residential community association” (RCA).

Competing Theories of Municipal Government & the Rise of RCAs

Knowledge of different theories concerning the role of municipal government is essential to understanding the predominant arguments made for/against the devolution of powers to RCAs, and the subsequent rise in prominence of neighborhood and homeowner associations. Early urban theorists and economists argued that political functions like the provision of certain public goods and services could be provided by community governments with smaller jurisdictions than their respective municipal government(s) (MacCallum 1965; Ostrom, Tiebout, and Warren 1961; Tullock 1994). Based upon classical republicanism and Hayekian logic (Hayek 1945), community governments are in a better position to understand the unique problems facing their respective neighborhood compared to the larger municipal government. Municipal governments with large jurisdictions simply are not able to gain information about each neighborhood within their jurisdiction to respond to each neighborhood's needs. Smaller, community-wide governments can take advantage of their smaller jurisdictions to gain a greater understanding of their community's needs, and to provide public goods in the most efficient manner (Beito, Gordon, and Tabarrok 2002; Bish and Ostrom 1973; Brueckner 1982; Foldvary 1994). If some communities provide their own public goods and services, the municipal government may have additional funds to allocate to the city's other needs (Cheung 2008). Thus, some theorists argue that political power should devolve from the municipal government to RCAs (Liebmann 1993).

Another premise of this argument is that citizens implicitly reveal their preferences for certain types of public goods and services by sorting themselves into communities that maximize their preferences for these goods and services (Schneider 1989a; Tiebout 1956). Through this market-based sorting behavior, citizens reveal their preferences to the smaller, community governments that in turn provide the services most-appealing to constituents. Therefore, communities may compete with each other to provide services efficiently (Sjoquist 1982) in order to attract a stable and wealthy tax base. Such competition may also decrease the central city's budget, especially if these competing communities offer typical municipal services (Sjoquist 1982). These reasons provide much of the impetus for the push to devolve service provision to RCAs from the municipal

government. With residential governments providing services, assuming greater fiscal responsibility, and competing for new residents, the municipal government wastes fewer resources, cuts its budget, and can spend money on other services.

The devolution of some fiscal authority to RCAs also limits the role of municipal bureaucrats in financial decisions. In the principal-agent relationship between the local government and bureaucracy (Moe 1984), bureaucratic agencies attempt to increase their prestige and maximize their budget (Niskanen 1971) using information asymmetries (Bendor et al. 1987; Miller and Moe 1983). While most studies of the interaction between a government and its bureaucracy focus on the federal level, Schneider (1989b) extends previous work to the municipal level. Giving RCAs greater control over policies and finances typically delegated to municipal governments and bureaucracies, in theory, limits the number of actors involved in the political process and thus increases efficiency.

Critics of RCAs counter that they often are undemocratic (Blakely and Snyder 1999; Damstra 2001; Low 2003; Pacione 2006), harm civic capacity in the neighborhood (Bell 1998), add additional taxes on residents (Dilger 1992; McKenzie 1994; Pacione 2006), and have little or no effect on improving the efficiency of public goods provision (Langbein and Spottswood-Bright 2004; McKenzie 1994; Pacione 2006). Many associations do not operate under the same democratic rules as their respective municipal governments, only allowing voting rights to property owners. Barton and Silverman (1994) also argue that this may lead to the undermining of civic capacity as residents are not practicing democracy in the neighborhood as it occurs at the local, state, and federal levels (Nelson 2005).

The legal system has also viewed these associations in the same manner as private, non-profit organizations. Therefore, associations can limit freedoms of speech, religion, assembly, and even freedoms of cohabitation without any repercussions from the courts. In his seminal book, *Privatopia: Homeowner Associations and the Rise of Residential Private Government*, Evan McKenzie (1994) avers that the “preservation of property values is the highest social goal” (p. 19) of private neighborhood governments like associations. The implication is that many residents face a critical opportunity cost in this endeavor. Residents often must forego individual freedoms of

altering their property, all in the name of keeping the integrity of the neighborhood to protect property values. The rules of many associations, especially homeowner associations, have become so stringent to achieve the goal of enhancing property values, that Robert Nelson (2005) has argued that “many Americans have in effect chosen a dictatorship” (p. 103). Central control of nearly every aspect of neighborhood activity may help property owners achieve an economic reward, but at the cost of some individual freedoms.

Not under dispute is the fact that the number of neighborhood and homeowner associations in the United States continues to increase (McCabe 2005). Another widely-stated fact is that these associations work for neighborhood improvement to increase property values. Associations may increase property values through gains in efficiency. They may also increase property values simply through creating a pleasant living environment that attracts certain residents to the community who have an interest in preserving and increasing property values. On the contrary, associations may have no effect on property values for various reasons ranging from lack of resources or because other property-specific factors/amenities affect property values to a greater degree. Uncovering the answers to these questions is important, but beyond the scope of this research due to data limitations. Therefore, the main goal of this paper is to help understand *if* RCAs affect property values and how different types of RCAs may differ from each other in the degree to which they affect property values. In the next chapter of the dissertation, I address how specific governing characteristics may allow associations to affect property values through responses to a unique mail survey sent to neighborhood and homeowner association presidents.

Defining a “Neighborhood”

Defining what characteristics constitute a “neighborhood” and differentiating between a “neighborhood” and a “community” are difficult tasks, and present theoretical and methodological difficulties in the study of urban politics. Citizens whose neighbors live across the street, but are within the jurisdictions of different associations may consider themselves as living in the same neighborhood,

even though their respective governing associations may differ widely in terms of organization and resources. Scholars in public health recently addressed this issue by analyzing neighborhood effects of public health programs at the urban level (Weiss et al. 2007). These scholars claim that the typical definition of a neighborhood in the literature is “a geographical unit of limited size, with relative homogeneity in housing and population, as well as some level of social interaction and symbolic significance to residents” (Weiss et al. 2007, S1154). Chaskin (1997) views defining neighborhood boundaries as “a negotiated and imperfect process,” and believes that neighborhoods can be defined based upon geographical, sociological, and/or political criteria. For the purposes of this study, I define a neighborhood at the politico-geographical level, using the jurisdictional boundaries listed by a neighborhood’s governing association. Previous studies on neighborhood governments also use this definition (Langbein and Spottswood-Bright 2004). I also use the terms “neighborhood” and “community” interchangeably.

Neighborhood v. Homeowner Associations (HOAs)

Real estate developers typically organize an HOA to govern the basic needs of the new neighborhood. The association governs through a board of directors that enforces the covenants, conditions, and restrictions (CC&Rs) that explain what activities are allowed/not allowed by residents living within the development. The CC&Rs may offer potential homeowners greater security in their investment since they know what activities are/are not allowed in their neighborhood, and can use the enforcement powers of the HOA to address any problems with neighbors violating the contracts. Homeowner association CC&Rs limit land uses beyond typical restrictions in municipal zoning (Franzese 2000; Nelson 2005; Winokur 1989b). They potentially provide a type of credible commitment that the neighborhood will not dramatically change in the future, preventing changes that may have a negative effect on property values. The use of CC&Rs is a defining difference between neighborhood and homeowner associations. Neighborhood associations are typically voluntary and do not use these contracts, whereas, signing the CC&Rs is usually a prerequisite to purchasing a house in a neighborhood governed by an HOA. Therefore, there may be systematic

differences between neighborhood and homeowner associations that affect property values. Table 1 provides a comparison between the two types of neighborhood governments.

[Table 1 About Here]

The legality of homeowner association CC&Rs is determined by state law (McCabe 2005; Natelson 1989), with most state laws recognizing that these associations are private, non-profit organizations acting as corporations (McCabe 2005; Natelson 1989), so many HOAs have restrictions that often appear unconstitutional on face-value (Anon. 1985). The CC&Rs act as a type of social contract (Anon. 1985) that restricts behaviors and levies punishments (Hyatt 2000; Sterk 1997). Residents signing the HOA's contract upon purchasing property are legally bound by these CC&Rs.

Many HOAs have the legal power to provide and/or contract for basic urban services like water, sanitation, trash pickup, etc., for their residents, opting to forego the use of services provided by their respective municipal government. These associations typically levy an involuntary monthly or annual fee upon their residents, which is used to provide these services or other amenities available to residents within the development (e.g., tennis courts, golf courses, swimming pools, etc.). HOAs often have explicit formal powers and can levy fines upon free-riders in the community or residents who do not abide by the neighborhood's restrictive covenants.

Another form of neighborhood government is the neighborhood association. Typically, neighborhood associations are not organized by a developer of a subdivision. Residents of the neighborhood organize the association to achieve certain goals like a reduction in crime or improving neighborhood beauty. A constitution or set of bylaws governs the actions of the officers of the association. The association may levy a *voluntary* fee, usually substantially smaller than an HOA fee, on residents in order to provide basic community needs. The public goods and services that a neighborhood association provides are often far less comprehensive (or nonexistent) than those goods and services provided by an HOA. Urban services like trash pickup, sewers, sidewalks, parks, streetlighting, etc., are often provided by the local government. Neighborhood associations usually

do not even engage in private contracts for urban services, unlike many HOAs that form contracts with private companies to handle some urban services that local governments historically provide. The activities that neighborhood associations typically pursue are organizing social events for residents and addressing minor concerns of its residents. Strong neighborhood associations may be able to gain enough funds from residents or from their municipal representative to provide community amenities similar to those amenities typically offered by HOAs. In general, however, neighborhood associations have substantially fewer formal powers and less ability to punish free-riders than HOAs. Neighborhood associations often are simple sounding-boards for residents to express concerns about neighborhood problems, or they act as organizations that encourage community-building activities like block parties to increase social interaction.

The differences between the activities and effects of HOAs compared to neighborhood associations may also originate from how they initially developed and from their power structures. HOAs formed by developers generally exert a downward flow of power, acting as the governing body and regulating the behavior of their residents. However, neighborhood associations often originate from grassroots efforts within the neighborhood amongst residents seeking to form a governing body. Therefore, there is likely an upward flow of power from the residents to the governing body in neighborhoods governed by associations initially formed by residents. The implication is that neighborhood governments that exert a downward flow of power, namely homeowner associations, are in a better position to affect property values. Sanctions for noncompliance of the neighborhood covenants ensures conformity to the covenants that are established to enhance property values.

RCAs and Property Values

Since moving is a costly activity, residents may express interest in organizing RCAs to increase property values and to protect their interests as homeowners (Boudreaux and Holcombe 2002). One of the oft-cited goals of the association as mentioned in interviews of association board members and residents is to increase property values (Frazier 1984, 1989; Low 2003), and the quality of such

governance could affect property values (Fischel 2001). In Florida, the state where my analysis occurs, formal homeowner associations must operate under Florida statutes, and their regulation began in 1992 (Dunbar and Dudley 2007). Dunbar and Dudley (2007) provide a guide to the statutes for association managers and directors and cite that properly-run associations “[can] promote the community concept and protect the community’s property values” (p. 2). It makes sense that this goal would be important to residents. Homeowners are rational actors, and they seek to increase the value of their property so that they can realize an economic profit if they sell their property. Several scholars have attempted to examine the effect of RCAs on property values, with mixed results (Winokur 1989a). Neighborhood governments have not been widely-studied (Dilger 1992), and much of the current focus has been on the normative components of neighborhood governance. However, there are more RCAs than municipal governments in the United States (Hawkins, Percy, and Montreal 1997), so it seems that the effects of these associations on the lives of residents need greater empirical investigation. With increased prominence of these governments, scholars are beginning to show interest in how they operate. One unanswered question is if RCAs successfully increase the property values of their residents. Protecting and increasing property values are major goals of most RCAs, and many residents indicate in interviews that they move to neighborhoods with active associations to protect their financial investment (Low 2003).

As mentioned, the CC&Rs are a main feature differentiating between homeowner and neighborhood associations, with the former relying more heavily on these contracts. The purpose of CC&Rs is to preserve the structure and appearance of the neighborhood as envisioned by the developer (Blakely and Snyder 1997; Low 2003). Signing a CC&R provides a credible commitment (Hughes and Turnbull 1996a; 1996b) by homeowners to not engage in certain activities perceived as detrimental to the neighborhood. Buyers on the housing market may seek out communities with strong CC&Rs in the belief that restrictions on neighborhood design and behaviors protect their financial investment (Low 2003). In a study of condominium associations, Cannaday(1994) believes that conventional wisdom may suggest that the use of CC&Rs lowers housing prices since they place restrictions on the rights of homeowners on their own property. On the contrary, he argues that the limitation of individual homeowner rights may help prevent behaviors that would

create negative externalities for the homeowner's neighbors. Prospective homebuyers then have greater certainty that the neighborhood will not undergo drastic changes or that they will have to suffer living next to nuisance neighbors. Bible and Hsieh (2001) present a short analysis of gated communities, finding that an entry gate (a characteristic of many neighborhoods governed by an HOA) increases the value of properties protected by the gate. Blakely and Snyder (1997) see the increase in property values from security gates as miniscule and negligible. Langbein and Spottswood-Bright (2004) examine the effects of neighborhood governments and their operations on property values. Their study attempts to resolve the debate between two competing schools of thought concerning neighborhood governments and their efficiency. The first school of thought is based upon Hayekian logic and fiscal equivalency ("pay for what you get"). Pacione (2006) argues that these RCAs are in a better position than the municipal government to provide basic services to their residents. In his view, RCAs act to reduce the cost of public services and increase efficiency, which manifests into higher property values (Dilger 1992; Foldvary 1994). However, Langbein and Spottswood-Bright (2004) argue that double-taxation of residents seemingly negates any improvement in property values that residents of homeowner associations realize. According to them, if associations charge residents a fee for services that are also simultaneously provided by a municipal government, the residents' economic profit from house price appreciation is offset by the annual dues they pay to the homeowner association.

On the other hand, a number of scholars argue that neighborhood governments are not efficient in their provision of public goods and thus do not enhance property values. Because many residents are willing to free-ride on the efforts of the more-motivated individuals of the neighborhood, these residents are often content with allowing the board of directors to handle the problem of public good provision for the neighborhood (Langbein and Spottswood-Bright 2004). Therefore, monitoring problems exist (McKenzie 1994), and the board of directors may not tax and provide services at the efficient level (Helsley and Strange 1998; 2000), and actually negatively affect property values (Brueckner 1982; Stiglitz 2000). Nevertheless, many neighborhood governments utilize a professional manager who may help to mitigate collective action problems that could negatively affect property values.

Langbein and Spottswood-Bright (2004) find that neighborhood governments overcharge their residents for services, which eliminates any gains in property values, and lends evidence to the school of thought that these governments are often inefficient and do not increase property values for their residents. However, Rogers (2006) updates their study, finding that neighborhood governments increase property values by approximately 2-3%, and that the institutional voting rules of these organizations can enhance property values. Obviously, Rogers' (2006) results place the debate under greater scrutiny. Neither study provides a clear answer to how associations affect property values, and thus, more analysis needs to be done to obtain a more definitive answer. The previous studies also only examine associations that levy monthly or annual fees on their residents according to policies set by the association's restrictive covenants. Most of the time, this description applies to HOAs that require residents to pay the fee. However, other levels of neighborhood governance exist beyond these homeowner associations. Voluntary neighborhood associations also exist within cities and vary in terms of their resources and powers. Therefore, to fully understand the role neighborhood governments play in affecting property values, we need to consider all types of associations and not limit analyses to associations that levy mandatory fees. This study attempts to fill this void, and the specific hypotheses tested appear below:

Hypothesis 1: *Ceteris paribus*, any form of neighborhood governance has a greater positive effect on property values than no governance at the neighborhood-level.

This hypothesis simply tests the question, "Does governance, per se, affect property values?" Most rural areas and some city neighborhoods are not governed by any type of association. Building off of this hypothesis is the second hypothesis tested in this paper:

Hypothesis 2: *Ceteris paribus*, homeowner associations (HOAs) have a greater positive effect on property values compared to neighborhood associations.

I seek to determine if homeowner and neighborhood associations systematically differ in their effect on house prices. Previous studies have only focused on HOAs, yielding mixed results. The purpose

of this research is to not only contribute to the debate concerning the effects of HOAs on house prices, but to also determine if their effects differ from neighborhood associations.

Description of the Study Area - Leon County, Florida

Figures 1 and 2 depict the western and eastern portions of Leon County, Florida, respectively. Colloquially, the delineation of the eastern and western portions of the county is Monroe Street, and I use this definition to split the figures into eastern and western portions. All colored portions of Figures 1 and 2 represent the jurisdictional boundaries of neighborhood and homeowner associations in Leon County.

[Figure 1 About Here]

Most of the state and local government buildings and Florida State University are located in downtown Tallahassee, which comprise the main city blocks to the immediate central-west (largely uncolored portion) of the Monroe Street dividing line. With government and higher education facilities located in this area, there are naturally fewer residential areas and fewer associations. Immediately north of downtown Tallahassee is a poor minority community. With this exception, the general pattern is that the further north one travels away from the central city, the wealthier the neighborhoods. Tallahassee Regional Airport and numerous tracts of rural land lie to the southwest of the central city. A sizable African-American population lives in this portion of the city and county, with Florida A&M, a Historically Black College and University (HBCU), just to the west of Monroe Street in this section of the county. The central-west portion of the county is largely rural and not governed by associations, but the northwest sections of the county near Lake Jackson contain many wealthier neighborhoods governed by homeowner associations.

The demographic and community patterns in the eastern portion of Leon County are nearly symmetrical to the patterns of western Leon County.

[Figure 2 About Here]

Numerous residential neighborhoods governed by neighborhood associations comprise the immediate area to the east of the central city. Moving southeast from the central city, one encounters another sizable African-American population near Florida A&M University. Many tracts of un-governed rural communities lie in the far southeastern portions of the county. The northeast sections of the county typically contain wealthier suburbs governed by homeowner associations.

One potential critique of analyzing house sales from a single county in the state of Florida is that patterns in Leon County, Florida, may not generalize to other counties in the U.S. or even the state of Florida. Table 2 provides basic demographic information from the *County and City Data Book*. The table compares economic and demographic figures from Leon County, the state of Florida, and the entire United States. Leon County does not differ substantially from the state of Florida and the United States in terms of per capita income and the percent of the population below the poverty line. The percentage of the population that is African-American, and the percentage of the population that has at least a Bachelor's degree, is higher in Leon County than the state of Florida and the U.S. The county percentage of owner-occupied units and Hispanic population is well-below the state and national averages. It is apparent that Leon County differs from the state of Florida and the United States on some demographic figures, but it is also similar to the state and nation on some economic figures. One can use the data from Table 2 to argue that housing patterns from Leon County are different from patterns in the state of Florida and the nation. However, I argue that the process by which neighborhood and/or homeowner associations affect property values should be the same across city, county, and state boundaries. Across the state of Florida and the United States, homeowner associations typically have more formal powers than neighborhood associations and are probably in a better position to affect change to property values.

[Table 2 about here]

Data & Research Design

I obtained the addresses of all recorded neighborhood and homeowner association presidents in Leon County from the Tallahassee Department of Parks, Recreation, and Neighborhood Affairs. In early 2009, I mailed a survey to these presidents.³ The survey asks association presidents to include information about the size of their neighborhood, the main concerns of the association, and their perception of the effectiveness of the association in several roles. The purpose of the survey is to provide greater information about the neighborhood for another project, but to also understand the complexity of the association and to learn more about the internal structure of the association. The structure and operation of the association may provide information as to what components of the micro-government and/or activities of the association may allow it to influence property values.

Parcel sales data were made available by the Florida Department of Revenue and the DeVoe Moore Center at Florida State University. This center houses parcel sales data for public use, and has statewide sales data since 1994. I use the 2007 sales data. Association characteristics revealed through the 2009 survey reflect the governmental environment for parcels on the market during 2007. The 2007 parcel sales data are also not affected by the 2008 housing crisis. The dataset contains information for every type of parcel sold within Leon County, Florida, in 2007, including industrial and commercial parcel sales. Since I am interested in the effect of associations on residential parcel values, I purge the data of all non-residential parcel sales. The remaining dataset contains 8,642 sales within Leon County for 2007. I then sampled 10% of the cases to obtain the dataset for analysis. Some parcels in the sample did not contain a physical address and/or data on when the house on the property was built. These omissions reflect that some of the parcels sold in 2007 were empty lots. I dropped these cases from the sample, since I am interested in parcels with residents, which left a sample size of 619 parcels.

One problem involves placing the parcels from the sample into their respective neighborhood/homeowner association. This information is not included in the parcels dataset. Neither the

³Survey available at <http://myweb.fsu.edu/dss05d>

Leon County Appraiser's Office, Tallahassee Department of Parks, Recreation, and Neighborhoods, Leon County Tax Collector's Office, nor the Council of Neighborhood Associations, keep a record of the jurisdictional boundaries of the associations in Leon County. However, using the unique parcel identification numbers in the sample, I was able to locate the subdivision of each parcel.⁴ While subdivision and association boundaries often coincide, this is not always the case. To help ensure correct placement of parcels into their associations, I located the physical address of each parcel on GoogleMaps and then compared the location with a paper map of Leon County and a file of association boundaries provided by the Florida State University Department of Urban and Regional Planning (depicted in Figures 1 and 2). A total of 207 parcels (33.39%) in the sample are located within the jurisdiction of an active HOA, 75 parcels (12.10%) are located within the jurisdiction of an active neighborhood association, and 43 parcels (6.94%) are located within the jurisdiction of a condominium association.⁵ Therefore, a little less than 48% of the parcels are not located within any type of neighborhood government. These numbers are not surprising. A number of surveys returned by neighborhood association presidents revealed that their association was no longer operational. Neighborhood associations usually form after the neighborhood develops, and the organization's strength and continuance depend upon the motivation of the neighborhood's residents. Subdivision developers often initially organize an HOA, filing articles of incorporation with the state government, and assume legal and governing power until enough units in the subdivision have been sold so that power can be turned over to a board of directors in charge of ensuring the health of the organization. Additionally, much of the population in Leon County lives outside of the central city in the suburbs surrounding the city, which are more likely governed by an HOA. Combining the ad hoc nature of neighborhood associations and the housing patterns of the bulk of the population, there is little reason to be concerned that the sample data are not representative of the population's patterns.

Another limitation of the original dataset is the lack of many house-specific variables used in previous hedonic price models (Sirmans, Macpherson, and Zietz 2005). Attempts to obtain specific

⁴Parcel information available at <http://www.leonpa.org>

⁵While the analysis of this paper focuses only on neighborhood and homeowner associations, I also report figures and results for condominium associations as a statistical control.

housing-unit characteristics, like the number of bedrooms, type of garage, and amenities like pools and fences from the Leon County Appraiser's Office were unsuccessful, as they do not compile these data for public use. I argue that the market value of the parcel includes these components, as the market value reflects the worth of the entire parcel. Previous hedonic model studies have attempted to understand the effects of each individual component of a parcel's amenities on its market value. While it would be useful to include such control variables in the dataset as a check on previous studies, I am predominantly interested in the effects of neighborhood governments on parcel market value.

The dependent variable in this study is the log of the market value of the house at the time of its sale in 2007. When members of associations cite that their main concern is to protect property values, they are most likely referring to current parcel market values, a measure of residential property values. Since I initially use a standard regression model, I must ensure that the dependent variable is normally-distributed. The market value variable fails the standard skewness-kurtosis test and the Shapiro-Wilk W test of normality; therefore, I use a logarithmic transformation to account for non-linearity.

The variables of interest to test the first two hypotheses are "HOA", "NA", and "Association." All three variables are dummy variables, coded 1 if the parcel is located within a homeowner association, neighborhood association, or any type of neighborhood-level government, respectively, and 0 otherwise.

I include several control variables in the regression model. Since a parcel's current market value is likely to be a function of its previous market value, I attempt to create a lagged market value variable. The original data set sparingly contains each parcel's previously assessed value by the Leon County Appraiser. Where this figure is available in the data, the year of the appraisal is not given. Therefore, the year of the assessment is not likely to be common across all observations. Therefore, I use the Internet site www.zillow.com to obtain an approximate value of the parcel's value in 2004, or five years prior to the year 2009 (the year when this project commenced). For properties with homes built after 2004, I use the most current appraisal value. Due to nonlinearity,

I also use a log transformation of this lagged variable and convert it into 2007 dollars.

The dataset includes the age of the house on the property, and I subtract the year of construction from 2008 to obtain the age of the structure. The age variable suffers from a positive skew, so I create a logged variable for the structure's age.

The variable "Condo" accounts for a condominium unit sold on the parcel. The original dataset contains a variable that delineates if the property is a condominium or other type of property. Many Florida residents do not purchase houses due to the cost of living in Florida, and opt to purchase a smaller, condominium unit. Some of these units are located in poor sections of Tallahassee; other units are upscale condominium units in the downtown area. To account for any effect of condominium units on the expected relationships, I code the variable 1 if the parcel sold is a condominium unit, and 0 otherwise. There is also a variable, "Condo Assoc." to differentiate condominiums located within the jurisdiction of a governing body established solely for the governance of condominiums. Many condominium associations resemble homeowner associations, but I decide to code condominium associations separately, because of the different types of residents that likely live within the jurisdiction of a condominium association versus residents within the jurisdiction of an HOA. Residents of HOAs are more likely to own the property than residents in condominium developments. While many condominium residents do own their property, there is also a large number of renters in most condominium developments. Using an online records database from the Florida Department of State's Division of Corporations, I find the respective condominium's articles of incorporation and determine if a condominium association is present. Therefore, the variable is coded 1 if the property is located in a condominium association, and 0 otherwise.

Table 3 provides summary statistics of the variables used in the study. For transformed variables, I also include summary statistics of the untransformed values. For dummy variables, I report the percentage of 1s for each respective variable. I do not use all of these variables in the model, especially the untransformed variables. I include these numbers for greater clarity since the descriptive statistics of the log-transformed variables are difficult to interpret on their own.

[Table 3 About Here]

To test the two hypotheses, I use variations of the following OLS regression model:

$$\begin{aligned} \log(\text{MarketValue})_i = & \alpha_i + \beta_1(\text{HOA})_i + \beta_2(\text{NA})_i \\ & + \beta_3(\text{CondoAssoc.})_i + \beta_4 \log(\text{PreviouslyAssessed})_i \\ & + \beta_5 \log(\text{Age})_i + \beta_6(\text{Condo})_i + \epsilon_i, \end{aligned}$$

where i represents each individual parcel.⁶

Results and Discussion

In the preliminary regression analysis, I replace the “HOA,” “NA,” and “Condo Assoc.” variables with the “Association” variable to test the first hypothesis that parcels in any type of association have greater price appreciation than parcels not located under the jurisdiction of a neighborhood government. In the next two models, I then separate the parcels by type of association and test the above regression equation. Table 4 presents the results of each regression. Model 1 shows the results from the aggregate association analysis, while Models 2 & 3 show the results from the regression with association-type disaggregated into homeowner association (“HOA”), neighborhood association (“NA”), and condominium association (“Condo Assoc.”). The reference category for Model 2 is “Condo Assoc.,” and the reference category for Model 3 is “NA.” Notice that the coefficients on the control variables in the last two models are the same, as they should. Model 2 simply tests if the different types of governments have an effect on property value appreciation compared to properties not located in any type of neighborhood government - hence the reference category is “No Association.” While Model 2 provides a test for the second hypothesis, Model 3 is depicted for greater clarity. With the reference category as “NA,” it shows how HOAs (and

⁶It should be noted that the first model that tests the first hypothesis is not in the same form as the regression equation above. I create a dummy variable coded “1” if a parcel is in any type of association, and “0” otherwise. In Models 2 & 3, I change the reference category and identify it where applicable.

condominium associations and no governance) compare to neighborhood associations in terms of changing property values. It provides a better visual test for the second hypothesis.

[Table 4 About Here]

Across all three models, the age of the house on the parcel and its most recent appraisal value have significant positive effects on the market value of the parcel. However, I am interested in the effects of governing associations on the parcel's value. Model 1 provides *initial* support for my first hypothesis that any type of neighborhood governance has a significantly positive effect on property value appreciation. Since the regression model uses logarithmic transformations of the dependent variable and includes an identically-transformed lagged value for parcel market value, the coefficients can be interpreted as percent changes when multiplied by 100. Therefore, in Model 1, the coefficient suggests that parcels located in any type of neighborhood government appreciated, on average, 11.6% between 2004 and 2007. This relationship is significant at the 95% confidence level.

When the parcels are identified as being within a particular type of association, I find that homeowner associations have a significant positive effect on the parcel's market value, as depicted in Table 4 under the "Model 2" and "Model 3" columns. Model 2 shows the regression coefficient when "No Association" is used as the reference category, so that I can compare the three different types of neighborhood government's effects on property value appreciation. Compared to parcels located in areas without governance, parcels located in HOAs, on average, experienced a 17.7% increase in parcel value between 2004 and 2007. This finding is significant at the 95% confidence level. Surprisingly, neither neighborhood associations or condominium associations have any significant effect on property value appreciation. Model 3 provides an easier visual test of my second hypothesis. I change the reference category to "NA," so that I can compare property value appreciation in HOA properties directly to properties located in neighborhood associations. The results provide support for my second hypothesis, suggesting that, on average, HOA properties experienced an 18.1% value appreciation between 2004 and 2007 when compared to properties located in

a neighborhood association. Again, this finding is significant at the 95% confidence level. The third model also shows that there were no significant differences in rates of property value appreciation in properties located in condominium associations and properties not located within the confines of a neighborhood government, when compared to neighborhood association properties.

In summary, Table 4 does provide support for my hypotheses, especially the second hypothesis that homeowner associations improve property values at a greater rate than neighborhood associations. There is support for the first hypothesis that properties in any type of neighborhood government appreciate in value faster than properties not located within neighborhood government boundaries, but the results of the table suggest that this relationship is not completely accurate. Earlier, I wrote that Model 1 provided *initial* support for my first hypothesis, but it is clear that this relationship is being driven largely by the presence of homeowner associations coded in the “Association” variable. Therefore, it does not appear that governance, per se, will improve property values, unless that governance is in the form of a homeowner association. Therefore, at this point, there is little evidence in support of the first hypothesis, but strong evidence for the second hypothesis.

A potentially interesting finding is the lack of significance on the neighborhood association variable when compared to properties not located within any type of neighborhood government. On the one hand, it would seem that neighborhood associations are in a position to increase social interaction that could compel residents to come together and work on neighborhood improvement. These associations use block parties to build social capital and to establish feelings of neighborliness. A well-connected neighborhood could become desirable to potential homebuyers, thus increasing the demand for housing in the neighborhood, which would lead to an increase in house prices and property values. On the other hand, most neighborhood associations are organizationally weaker than homeowner associations. They have fewer resources and legal powers; therefore, they are in a worse position to affect changes in the neighborhood conducive to improving property values. They may simply be sounding-boards for citizens to express problems. Additionally, neighborhood associations, unlike homeowner associations, usually form after the neighborhood develops, and in

response to some pressing issue within the neighborhood (e.g., crime, poor urban services, crumbling roads, graffiti, etc.). Often, the association becomes weaker or ceases to exist when a concern has been addressed.

The trend in the inception of association formation presents a potential endogeneity problem with the OLS regression analysis. There exists a possibility that the dependent variable, parcel market value, has a systematic effect on neighborhood and/or homeowner association formation. For example, a decline in property values (often caused by physical and social disorders like vandalism and violent crime) may entice residents to form a neighborhood or homeowner association.

A common way to deal with endogenous relationships is to use an instrumental variable that is strongly correlated with an endogenous independent variable, but not correlated with the dependent variable, and then estimate a two-stage least squares regression. I use distance from the central city as the instrumental variable for the homeowner and neighborhood association variables. Using an online GPS system, I found the distance from each parcel's physical address to the Leon County courthouse in downtown Tallahassee.⁷ I use distance from the central city as the instrumental variable, because HOAs typically form in the suburban areas outside the central city. Developers needing vast expanses of land to develop suburbs governed by HOAs usually must build their developments in areas with lower population densities. Residential areas in the central city usually have neighborhood associations since these areas have existed for many decades. Distance from the central city may not be a strong instrumental variable, and may be weakly related to the location of a homeowner and/or neighborhood association. If one were to invoke the monocentric city model (O'Sullivan 2003), distance from the central city would not be a good instrumental variable since the model suggests that residential areas outside the central city will have higher property values than areas in the central city. On the contrary, with inner-city revitalization attempts, some cities have expensive residential properties in the downtown-areas. Through calculating a Kleibergen-Paap statistic, I verify that the model suffers from weak identification with the use of distance from the central city as the instrumental variable.

⁷GPS website available at <http://www.gpsvisualizer.com/calculators>

One method of dealing with weak instrumental variables for inference is to use the limited information maximum likelihood (LIML) estimator (Gawande and Li 2009). In the first instrumental variable regression model, I use distance from the central city as the instrumental variable for the variable “HOA.” The model tests the effects of a parcel being in a homeowner association versus not being in a homeowner association on the parcel’s market value. In the second and third iterations of this regression model, I purge the dataset of certain parcels to compare HOAs to properties not located within the jurisdiction of a neighborhood-level government, and then compare them with properties located in neighborhood associations. The results for these models are depicted in Table 5.

[Table 5 About Here]

The results depicted in Model 1 of Table 5 provide refutation for my original finding that homeowner associations have a positive effect on property values. After accounting for endogeneity, there initially appears to be no relationship between homeowner associations and property values. Therefore, a property located in a homeowner association is not significantly likely to have a greater improvement in property values compared to a property located in a neighborhood association, condominium association, or a property located in a neighborhood without any form of governance. This finding could suggest a number of different phenomena. First, HOAs may not have a significant effect on property value appreciation compared to properties not located in any type of association. This relationship could suggest that these respective properties appreciate at similar rates, or it could suggest that most properties not located within the jurisdiction of a neighborhood government are on the urban fringe and in rural areas that are attractive to wealthier residents. Second, the finding in Model 1 could suggest that of all forms of neighborhood government, HOAs are the only type to lead to property value appreciation. Finally, the finding could suggest that there is, in fact, an endogeneity issue (which I argue later that theoretically, the HOA variable should not suffer from endogeneity due to the nature of HOA formation), and the significant pattern observed in the original OLS regression is an artifact of this endogeneity problem.

I attempt to address the three possibilities by running two additional LIML instrumental variable regression models. I first purge the sample of parcels located in neighborhood and condominium associations. The parcels remaining in the sample are properties located either in a homeowner association or in neighborhoods with no governance. This method allows me to compare appreciation rates between these two different types of properties while accounting for a potential endogenous relationship between property values and the “HOA” variable. The results are depicted in Model 2 of Table 5. Properties located in HOAs do not appreciate faster, on average, than properties not located in any type of neighborhood government. When I restore the sample and then only include properties located in homeowner and neighborhood associations, and use the neighborhood association variable as the reference category, there does appear to be a systematic difference in value appreciation between properties located in an HOA compared to properties located in a neighborhood association, when accounting for a potential endogenous relationship between the dependent variable and the “HOA” variable. Is it that governance does not matter, or if there is governance, then are HOAs in a better position to improve property values compared to other forms of neighborhood government?

To summarize the findings from the OLS regression and LIML instrumental variable regression models, I first found that any type of neighborhood governance improves property values from the OLS regression model. I then recanted this claim when I considered different types of governance and applied these new dummy variables to the OLS regression model. I found that properties in HOAs appreciate in value at a higher rate, on average, than properties not located in any type of association. They also appreciate in value at a higher rate when compared to properties located in neighborhood associations. I concluded that HOAs appeared to be driving the significant relationship between any type of governance and improvements in property values, and then suggested that governance, per se, does not affect property values unless the form of government is an HOA. When I ran a different form of regression to account for endogeneity, the results still supported the claim that properties in HOAs appreciate in value at a higher rate than properties located in neighborhood associations. However, the results also suggested that properties located in HOAs do not appreciate at a higher rate than properties in neighborhoods without any governance. There

are now two possible conclusions:

1. Neighborhood governance does not significantly improve property values. In fact, neighborhood governance may be wasteful considering that these governments often levy annual dues for membership and that they have no significant effect on property values. Homeowner associations may be the most wasteful form of neighborhood government since their fees are usually much higher and involuntary compared to the lower and voluntary neighborhood association fees.

2. There is no theoretical reason to think an endogenous relationship exists between property values and the homeowner association variable. Homeowner associations usually form prior to many residents purchasing homes in the development. The developer initially establishes the covenants, and then when enough residents move in, he/she devolves authority to a board of directors to govern. Therefore, changes in property values would not affect the likelihood of neighborhood residents forming an HOA; HOAs always form first, residents move in, and then the HOA's governance is in a position to affect property values. If one invokes this logic, then the LIML instrumental variable regression is the incorrect model to use when modeling the relationship between HOAs and property values. Therefore, the results from the original OLS regression in Table 4 reveal the true relationship between HOAs and property values. Properties in HOAs do appreciate at a greater rate, on average, compared to properties with no governance, and when compared to properties in neighborhood associations.

Given the previous literature describing the formation of neighborhood associations, I am more likely to support the second conclusion. Until information and data emerge that reveals homeowner associations with CC&Rs and involuntary fees do form after residents move into a development, I will place less confidence in the LIML instrumental regression results. Given that developers of unbuilt subdivisions file articles of incorporation and establish the CC&Rs prior to most residents purchasing homes in the new subdivision, the causal arrow between property values and HOAs goes in only one direction and does not reflect an endogenous relationship.

Conclusion

I posed two hypotheses aimed at understanding the effects of different forms of neighborhood governments, or RCAs, on property values. The first hypothesis asks if any type of governance has a positive effect on property values, while the second hypothesis tests if homeowner associations (HOAs) have a stronger effect on property values than neighborhood associations. The results and subsequent interpretation from the basic OLS regression analysis do not support the first hypothesis that parcels in any type of RCA (neighborhood or homeowner association) have higher property values than parcels not located under the jurisdiction of an RCA. However, there is support for the second hypothesis that homeowner associations have a greater positive impact on property values than neighborhood associations. After running the OLS regression model, I use an instrumental variable approach to deal with endogeneity problems that may exist. The limited-information maximum-likelihood (LIML) instrumental variable regression model reveals a different result from the OLS regression. While HOA properties differ from neighborhood association properties, it also appears that there is no difference between HOA properties and properties with no neighborhood-level governance. I discount this finding based upon the fact that homeowner associations form prior to residents moving into the subdivision. Therefore, changes in property values cannot affect the likelihood of an HOA forming. The findings from my analysis provide strong evidence that HOAs are able to improve property values within their jurisdiction. One factor that may be driving this interesting finding is that *all* types of homeowner associations are treated the same in my analysis. In the dataset, the homeowner association variable is a dummy variable. Not all homeowner associations are the same and some associations have greater resources, powers, and levels of professionalism than other associations. Therefore, it is necessary to move beyond coding a parcel as being in a homeowner association or not, and to know if properties are located in a weak or strong association. In the next chapter, I attempt to “open the box” concerning homeowner associations to see if certain characteristics allow some homeowner associations to improve property values.

While the results provide evidence that HOAs independently affect property values in a

positive direction, more troubling is the zero effect of neighborhood associations on property values. This form of government is popular in central cities, and neighborhood association presidents do cite improvement in property values as a goal. While the findings in this paper suggest that these associations have no effect on property values, they may serve another purpose in the neighborhood. Neighborhood associations can be a medium through which their board members can improve social interaction among neighbors through block parties. Additionally, improving neighborhood beauty and deterring vandalism could be aspects of the neighborhood life that neighborhood associations can improve even if they do not improve property values.

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Table 1: Characteristics of Neighborhood and Homeowner Associations (HOAs)

Characteristic	Neighborhood Association	HOA
Governing Document	Bylaws	Covenants Conditions & Restrictions (CC&Rs)
Formation	Residents (Grassroots)	Developer
Membership	Voluntary (Open Membership)	Involuntary (Property Owners)
Fees	Voluntary & Minimal	Involuntary & Variable (Higher than Nabe. Assoc. Fees)
Services Provided	Socials; Beautification; Limited Urban Services & Code Enforcement	Urban Services; Amenities Code Enforcement (Liens) Socials & Beautification
Legal Concerns	N/A	Often considered private, NPOs acting as corporations

Table 2: Local, State, and National Economic and Demographic Statistics

Characteristic	Leon County	Florida	U.S.
% White	65.8	80.4	80.2
% Black	30.2	15.7	12.8
% Hispanic	4.1	19.5	14.4
% Bach. Degree	41.7	22.3	24.4
% Below Poverty Line	12.7	11.9	12.7
% Owner-Occupied Units	57.0	70.1	66.2
Per Capita Income	32,188	34,001	34,471

Data on race and income are from 2005; poverty is from 2004; housing and education are from 2000.

Table 3: Summary Statistics

Variable	Mean	Std. Dev.	% 1s	Min.	Max.
Market Value	\$148,771.20	\$107,371.40	n.a.	\$1,300	\$842,154
Market Value (log)	11.66	0.77	n.a.	7.17	13.64
HOA	0.33	0.47	33.39	0	1
NA	0.12	0.33	12.10	0	1
Condo Association	0.065	0.25	6.45	0	1
Association	0.52	0.50	51.94	0	1
No Association	0.48	0.50	48.06	0	1
Previously Assessed	\$153,208.60	\$100,952.10	n.a.	\$2,700.62	\$877,985.30
Previously Assessed (log)	11.74	0.69	n.a.	7.90	13.69
Age (Years)	24.42	19.15	n.a.	2	89
Age (log)	2.75	1.08	n.a.	0.69	4.49
Condo	0.069	0.25	6.94	0	1
N	620				

Table 4: OLS Regression Coefficients on the Logged Market Value of Parcels

Reference category is “No Association” in Models 1 & 2; “NA” in Model 3.

Variable	Model 1	Model 2	Model 3
Association	0.116** (0.048)		
No Association			0.004 (0.064)
HOA		0.177*** (0.062)	0.181** (0.082)
NA		-0.004 (0.064)	
Condo Assoc.		0.189 (0.161)	0.193 (0.175)
log(Assessed)	1.008*** (0.037)	0.999*** (0.038)	0.999*** (0.038)
log(Age)	0.338*** (0.040)	0.355*** (0.040)	0.355*** (0.040)
Condo	0.127 (0.123)	0.069 (0.090)	0.069 (0.090)
(Intercept)	-1.195** (0.492)	-1.148** (0.485)	-1.152** (0.484)
N	619	619	619

*p<0.10; **p<0.05; ***p<0.01 (two-tailed)

Standard errors are in parentheses and clustered by neighborhood.

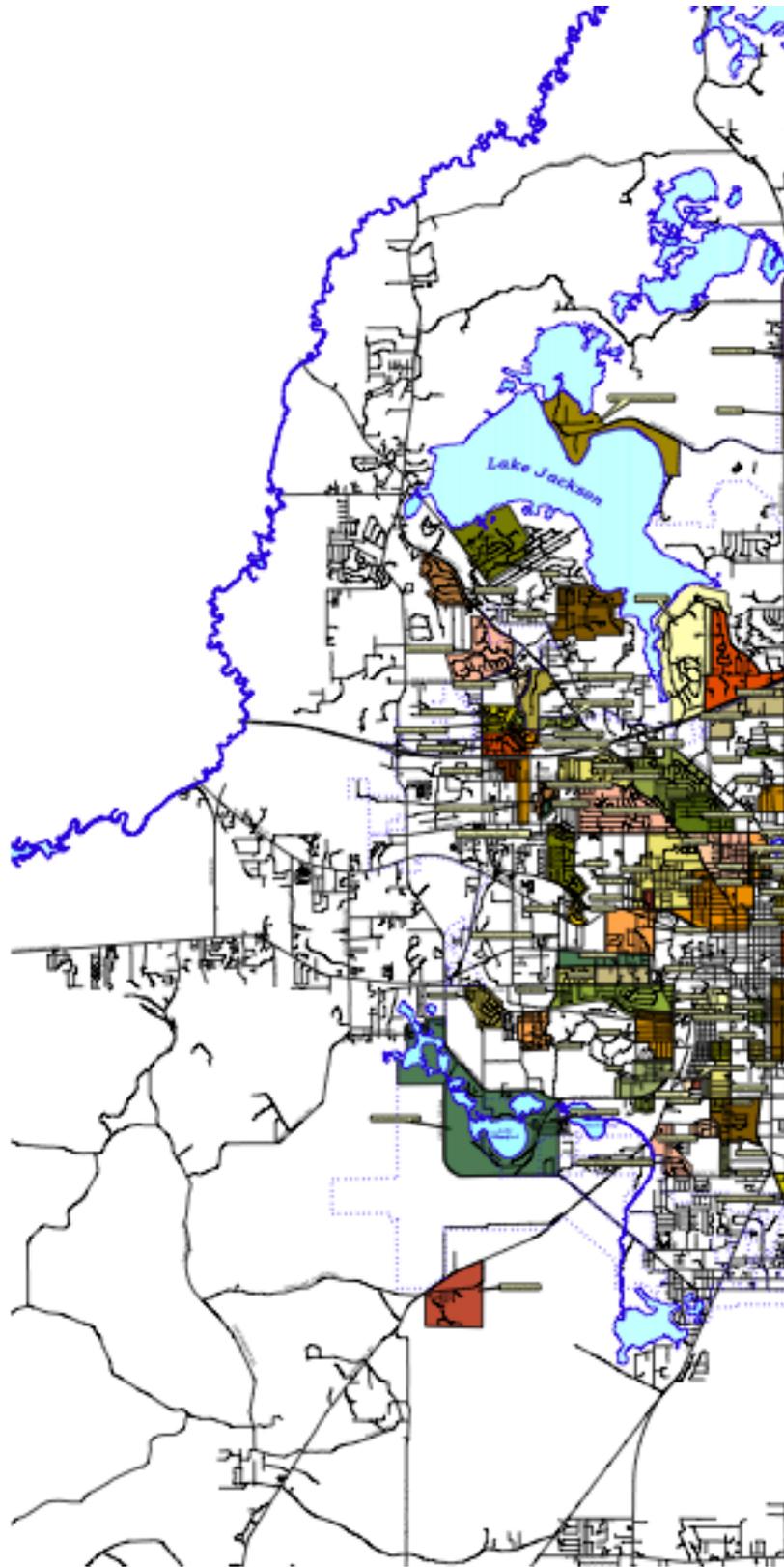
Table 5: LIML Instrumental Variable Regression Results

Dependent Variable: log(Market Value)

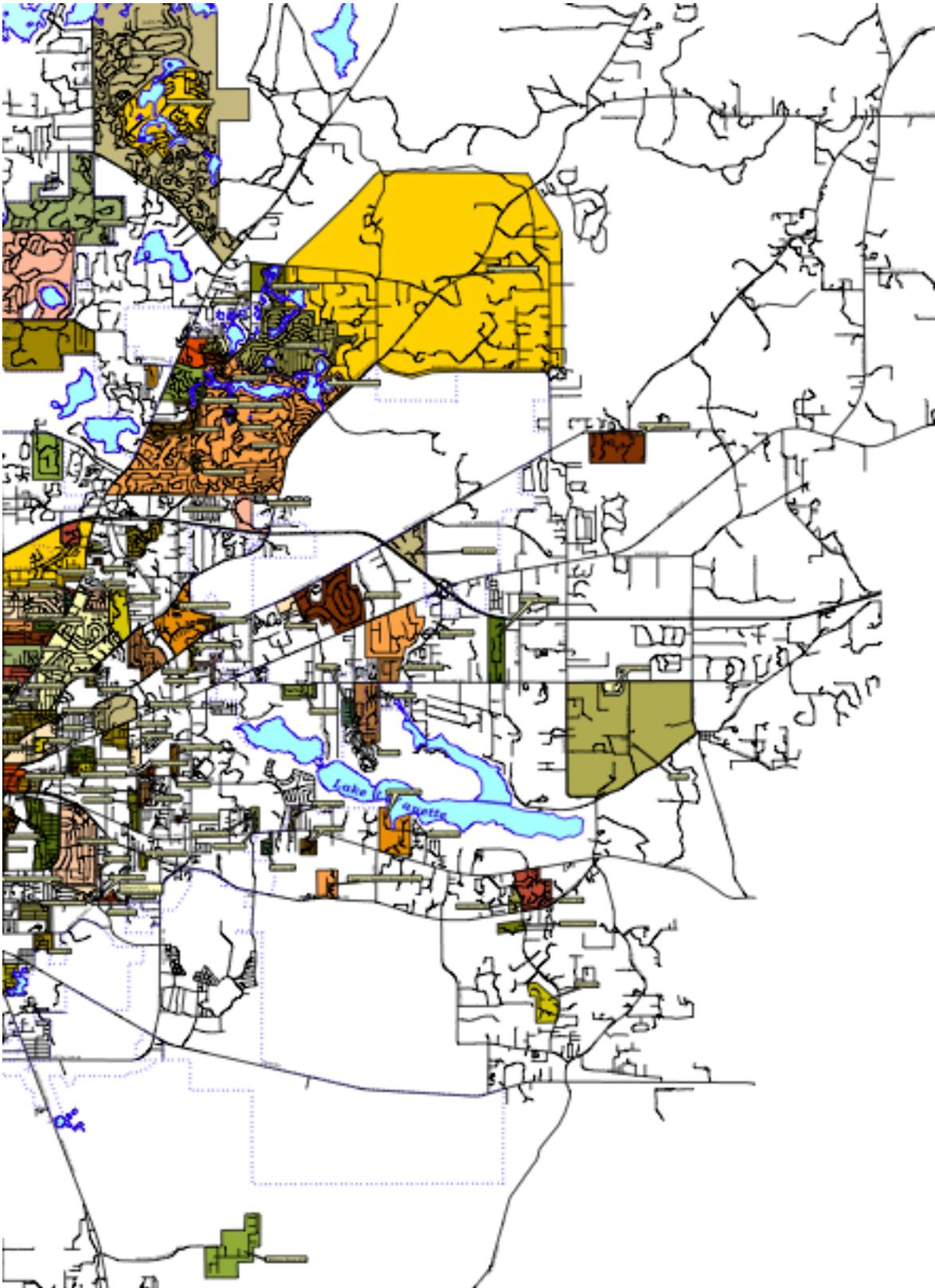
Variable	Model 1	Model 2	Model 3
HOA	1.789 (1.405)	1.842 (1.729)	0.617** (0.279)
log(Assessed)	0.442*** (0.233)	0.332 (0.372)	0.987*** (0.075)
log(Age)	0.543** (0.226)	0.564** (0.283)	0.491*** (0.071)
(Intercept)	4.322** (1.868)	5.477* (3.057)	1.695* (0.975)
N	619	504	282

*p<0.10; **p<0.05; ***p<0.01 (two-tailed)

Standard errors clustered by neighborhood. Model 2 only includes properties in HOAs and properties without any governance. Model 3 only includes properties in HOAs and properties in neighborhood associations.



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Figure 1: West Leon County



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Figure 2: East Leon County