

Neighborhood Governments and Their Role in Property Values

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Abstract

More U.S. citizens live in neighborhoods governed by homeowners (HOAs) or neighborhood associations (NAs) than in any period of American history. Property values are typical association goals. Research fails to consider all types of associations in the examination of the effects of neighborhood governance on property values. In this article, I study the effects of HOAs and NAs on property values. I find that HOAs increase property values, while NAs exert no influence on property values.

Keywords

homeowners associations, neighborhood associations, property values, house sales

Why This Question Matters

Scholars have noticed a “quiet revolution” (Barton and Silverman 1994) in the development and evolution of neighborhood governments (Beito, Gordon, and Tabarrok 2002; Nelson 1999), which have over an estimated 50 million U.S. residents living within their jurisdictions (Community Associations Institute 2002; McCabe 2005). What effect do these neighborhood-level

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governments, also known as residential community associations (RCAs),¹ have on the property values within their jurisdiction? The answer to this question is unclear (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.

In his seminal book, *Privatopia: Homeowner Associations and the Rise of Residential Private Government*, Evan McKenzie (1994) averred that the “preservation of property values is the highest social goal” (p. 19) of private neighborhood governments like associations. Many RCA presidents cite that improving property values is the main goal of the association (Boudreaux and Holcombe 2002). 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 (Blakely and Snyder 1997; Low 2003). The rules of many associations, especially homeowners associations (HOAs), are stringent. 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.

RCAs may have no effect on property values for various reasons ranging from lack of resources or because other neighborhood-specific factors affect property values to a greater degree. Therefore, the main goal of this article is to help understand *whether* RCAs affect property values and how different types of RCAs may differ from each other in the degree to which they affect property values.

Neighborhood Association (NA) Versus HOA

Real estate developers typically organize an HOA to govern the basic needs of the new development. 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 (Hyatt 1985, 2000). The CC&Rs may offer potential homeowners greater security in their investment as 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 (Hughes and Turnbull 1996a, 1996b; Low 2003). HOA 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 (Hughes and

Table 1. Characteristics of NAs and HOAs.

Characteristics	NA	HOA
Governing document	Bylaws	CC&Rs
Formation	Residents (grassroots)	Developer
Membership	Voluntary (open membership)	Involuntary (property owners)
Fees	Voluntary and minimal	Involuntary and variable (higher than neighborhood association fees)
Services provided	Socials, beautification, limited urban services and code enforcement	Urban services, amenities, code enforcement (liens), socials, and beautification
Legal concerns	N/A	Often considered private, non-profit organizations acting as corporations

Note. NA = neighborhood association; HOA = homeowners association; CC&Rs = covenants, conditions, and restrictions; N/A = not applicable.

Turnbull 1996a, 1996b; Lang and Danielsen 1997). The use of CC&Rs is a defining difference between NAs and HOAs. NAs are typically voluntary and do not use these contracts, whereas signing the CC&Rs is usually a prerequisite to purchasing a home in a neighborhood governed by an HOA (Hyatt 1985, 2000; McCabe 2005, 2011). Therefore, there may be systematic differences between NAs and HOAs that affect property values. Table 1 provides a comparison between the two types of neighborhood governments.

The legality of HOA CC&Rs is determined by state law (McCabe 2005; Natelson 1989), with most state laws recognizing that these associations are private, nonprofit 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; McCabe 2005; McKenzie 1994; Nelson 2005; Sterk 1997). Residents signing the HOA's contract upon purchasing property are legally bound by these CC&Rs (Hyatt 1985, 2000; McCabe 2005, 2011).

Generally, local residents organize a NA. 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 to provide basic community needs. The public goods and services that a NA provides are often far less comprehensive (or nonexistent) than those goods and services provided by an HOA (Cashin 2001; McCabe and Tao 2006;

Scheller, forthcoming). NAs usually do not engage in private contracts for urban services, unlike many HOAs (Hyatt 1985, 2000; McCabe 2011; Tao and McCabe 2012). NAs typically organize to address minor resident concerns (McCabe 2005; Sterk 1997). Strong NAs may be able to provide community amenities similar to those offered by HOAs. However, NAs have fewer formal powers and less ability to punish free riders than HOAs (Nelson 2005).

RCAs and Property Values

In a study of condominium associations, Cannaday (1994) discussed the potential effect of restrictive covenants on property values. First, CC&Rs could lower housing prices as they place restrictions on the rights of homeowners on their own property. On the contrary, this 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.² He finds support for certain types of covenants improving property values. Condominium associations resemble HOAs in that they often provide services such as trash pickup and security gates. Therefore, an analysis of neighborhood governments should also include a discussion and/or controls for condominium associations.

Bible and Hsieh (2001) presented 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) saw the increase in property values from security gates as miniscule and negligible. Langbein and Spotswood-Bright (2004) examined 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 (Hayek 1945) and fiscal equivalence ("pay for what you get"). Pacione (2006) argued 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 Spotswood-Bright argued that double taxation of residents seemingly negates any improvement in property values that residents of HOAs realize. According to them, if associations charge residents a fee for services that are also simultaneously provided by a municipal government, the annual dues they pay to the HOA offset the residents' economic profit from house price appreciation.

However, 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 Spotswood-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 (Langbein and Spotswood-Bright (2004) Nevertheless, many neighborhood governments utilize a professional manager who may help to mitigate collective action problems that could negatively affect property values.

Langbein and Spotswood-Bright (2004) found that condominium associations 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. More specifically, they find that the presence of professional management leads to only a 0.23% increase in property values, or \$318, which is eliminated once they factor in the cost of membership to a condominium association. This study only examines condominium associations, which may differ from typical HOAs. However, Rogers (2006) updated their study, finding that neighborhood governments increase property values by a modest 2% to 3% and that the institutional voting rules of these organizations can enhance property values. Obviously, Rogers' results place the debate under greater scrutiny. Neither study provides a clear answer to how associations affect property values; thus, additional 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 HOAs. Voluntary NAs 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. The hypotheses tested in this research only apply to parcels with an actual housing structure. This study attempts to fill the void in the literature, and the specific hypotheses tested appear below:

Hypothesis 1: Any form of neighborhood governance has a greater positive effect on property values than no governance at the neighborhood level.

Hypothesis 2: HOAs have a greater positive effect on property values compared with NAs.

Data and Research Design

To test these hypotheses, I examine a random sample of properties in Leon County, Florida. Leon County is a mid-sized county in northern Florida. The largest city in the county, Tallahassee, is the location of the state capital and government. Most of the state and local government buildings and Florida State University are located in central/downtown Tallahassee. The general pattern is that the further north one travels away from the central city, the wealthier the neighborhoods. They are also largely governed by HOAs. The northwest sections of the county contain many wealthier neighborhoods governed by HOAs.

The demographic and community patterns in the eastern portion of Leon County are nearly symmetrical to the patterns of western Leon County. Numerous residential neighborhoods governed by NAs comprise the immediate area to the east of the central city. The northeast sections of the county typically contain wealthier suburbs governed by HOAs. Most southern portions of the county are either rural and/or governed by NAs.

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. The 2007 parcel sales data are not affected by the 2008 housing crisis. The data set contains information for every type of parcel sold within Leon County, Florida, in 2007, including industrial and commercial parcel sales. As I am interested in the effect of associations on residential parcel values, I purged the data of all nonresidential parcel sales. The remaining data set contains 8,462 sales within Leon County for 2007. I then randomly sampled 10% of the cases to obtain the data set 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, as I am interested in parcels with housing units, which left a sample size of 620 parcels.

Ideally, I would include an analysis of all properties in the 2007 sales data set. However, this data set does not include many covariates. Manual entry of important variables including whether or not the parcel is located in an association and Census tract location necessitated the use of random sampling. The sample does not differ significantly from the full data set. The mean sales price in the original data set and the mean sales price in the sample are nearly

identical. In the full data set, the mean sales price is \$145,273.28 with a standard deviation of \$406,326.10. The mean sales price in the sample is \$148,771.20 with a standard deviation of \$107,371.40. The statistical results should not be an artifact of issues with the sample, because the full data set has a large standard deviation, which is likely due to a house selling for \$28,300,000 in the study-year (this outlier is not in the sample). Therefore, I am confident that the sample is representative of typical house sales in 2007 in Leon County and not affecting the confidence of the results.

One problem involves placing the parcels from the sample into their respective NA/HOA. This information is not included in the parcels data set. Neither the Leon County Appraiser's Office; Tallahassee Department of Parks, Recreation, and Neighborhoods; Leon County Tax Collector's Office; or 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.³ Although 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 Google Maps 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. 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 NA, and 40 parcels (6.45%) are located within the jurisdiction of a condominium association.⁴ Therefore, a little less than 48% of the parcels are not located within any type of neighborhood government. These numbers are not surprising. Combining the ad hoc nature of NAs 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.

One limitation of the original data set is the lack of many house-specific variables used in previous hedonic price models (Sirmans, Macpherson, and Zietz 2005). Attempts to obtain specific housing-unit characteristics, such as the number of bedrooms, type of garage, and amenities such as 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. Whereas, it would be useful to include such control variables in the data set as a check on previous studies, I am predominantly interested in the effects of neighborhood governments on parcel market value.

Table 2. Variables.

Variables	Description
DV: Log(Market Value)	Log of parcel's sales price (in 2007 dollars)
HOA	Coded 1 if parcel is in HOA; 0 otherwise
NA	Coded 1 if parcel is in NA; 0 otherwise
Association	Coded 1 if parcel is in an HOA, condominium association, or NA; 0 otherwise
No association	Coded 1 if parcel is not in any type of government; 0 otherwise.
Log(Previously Assessed)	Log of parcel's 2004 value (in 2007 dollars)
Log(Age)	Log of the age of housing structure located on parcel
Condo.	Coded 1 if the parcel's housing structure is a condominium unit; 0 otherwise
Condo. Assoc.	Coded 1 if the parcel's housing structure is in a condominium association; 0 otherwise
Education	Percentage of citizens in Census tract who have at least a bachelor's degree
Poverty	Percentage of citizens in Census tract who are living at or below the poverty line
Minority	Percentage of citizens in Census tract who are considered minorities

Note. DV = dependent variable; HOA = homeowners association; NA = neighborhood association.

I also add neighborhood-specific variables that may affect property values. To do this, I located the Census tract for each address in the sample and collected data on the poverty rate, percent minority, education, and median family income for each Census tract based upon Census 2010 information. I did not use Census 2000 data as the parcel sales occurred in 2007, and the 2010 Census information likely better represents neighborhood characteristics for the parcels sold in 2007.

Table 2 presents the variables used in this study. 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. 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 nonlinearity.

The variables of interest to test the two hypotheses are *HOA*, *NA*, and *Association*. All three variables are dummy variables, coded 1 if the parcel is

located within an HOA, NA, or any type of neighborhood-level government, respectively, and 0 otherwise.

I include several control variables in the regression model. As 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. 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. This variable is called *Previously Assessed*. Due to nonlinearity, I also use a log transformation of this lagged variable and convert it into 2007 dollars.

The data set includes the age of the house on the property, calculated by subtracting the year of construction from 2007 (labeled *Age*). To eliminate a positive skew, the variable is logged.

The variable *Condo* accounts for a condominium unit sold on the parcel. The original data set contains a variable that delineates if the property is a condominium or other type of property. 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 HOAs, but I decide to code condominium associations separately because of the different types of residents who 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. Although 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 whether a condominium association is present. Therefore, the variable is coded 1 if the property is located in a condominium association and 0 otherwise.

I also include neighborhood-specific variables that may have an effect on property values. These variables are measured at the Census tract level from the 2010 Census. *Education* is the percentage of citizens in the tract with at least a bachelor's degree. The expectation is that education has a positive impact on property values. Individuals with higher levels of education may be more interested in housing as an investment opportunity. *Poverty* is the percentage of population in the tract living at or below the poverty level. Areas with high levels of poverty tend to suffer from more crime and blight,

Table 3. Summary Statistics.

Variables	M	SD	% 1s	Minimum	Maximum
Market value (untransformed)	\$148,771.20	\$107,371.40	—	\$1,300	\$842,154
Log(Market Value)	11.66	0.77	—	7.17	13.64
HOA	—	—	33.39	0	1
NA	—	—	12.10	0	1
Condo. Assoc.	—	—	6.45	0	1
Association	—	—	52.25	0	1
No association	—	—	47.74	0	1
Previously assessed (untransformed)	\$153,208.60	\$100,952.10	—	\$2,700.62	\$877,985.30
Log(Previously Assessed)	11.74	0.69	—	7.90	13.69
Age (untransformed)	24.42	19.15	—	2	89
Log(Age)	2.75	1.08	—	0.69	4.49
Condo.	—	—	6.94	0	1
Education	23.86	10.23	—	5.27	51.95
Poverty	17.75	16.13	—	0.5	76.1
Minority	40.66	21.95	—	12.33	98.76

Note. The mean and standard deviation are reported for interval-level measures. For dummy variables, the percentage of cases coded as 1 is reported. HOA = homeowners association; NA = neighborhood association.

which have a negative impact on property values. *Minority* is the percentage of the tract's population that is considered racial minorities. Residents of more exclusive neighborhoods, usually governed by HOAs, may seek to live in more homogeneous neighborhoods, and use methods of NIMBYism (Not In My Back Yard) to exclude minorities. The percentage of minorities in a neighborhood may also decrease property values as a function of income. Minorities in the United States tend to earn less income than whites, which would have a negative effect on property values. The *Minority* variable is highly collinear with the tract-level income variable, so I have excluded the income variable from the regression model. The *Poverty* variable is not highly collinear with the *Minority* variable, so *Poverty* is included in the model to capture neighborhood income effects.

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 ease of interpretation. For dummy variables, I report the percentage of 1s for each respective variable. I do not use all of these variables in the

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

Variables	Model 1	Model 2
Association	0.120** (0.051)	0.070 (0.046)
Log(Previously Assessed)	0.714*** (0.098)	0.590*** (0.119)
Log(Age)	0.291*** (0.035)	0.287*** (0.038)
Condo.	0.146 (0.154)	0.124 (0.149)
Education		0.005 (0.005)
Poverty		-0.003** (0.002)
Minority		-0.004** (0.002)
Intercept	2.409** (1.174)	4.02*** (1.395)
N	620	620

Note. Standard errors are in parentheses and clustered by Census tract. The *Association* variable is a dummy variable coded 1 if the property is in any type of neighborhood government (homeowners association, neighborhood association, or condominium association; 0 otherwise). OLS = ordinary least squares.

* $p < .10$. ** $p < .05$. *** $p < .01$ (two-tailed).

models, especially the untransformed variables. I include descriptive statistics of the untransformed variables for greater clarity because the descriptive statistics of the log-transformed variables are difficult to interpret on their own.

To test the two hypotheses, I use variations of the following ordinary least squares (OLS) regression model:

$$\begin{aligned} \log(\text{Market Value})_i = & \alpha_i + \beta_1 (\text{HOA})_i + \beta_2 (\text{NA})_i + \beta_3 (\text{Condo. Assoc.})_i \\ & + \beta_4 \log(\text{Previously Assessed})_i + \beta_5 \log(\text{Age})_i + \beta_6 (\text{Condo.})_i \\ & + \beta_7 (\text{Education})_i + \beta_8 (\text{Poverty})_i + \beta_9 (\text{Minority})_i + \varepsilon_i, \end{aligned}$$

where i represents each individual parcel.⁵

Results

The first regression analysis tests the hypothesis that parcels in an association appreciate more in value than parcels outside of associations. In the later 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 that tests the first hypothesis that any type of neighborhood government improves property values. Model 1 has a reference category of *No Association*. It also does not include neighborhood-specific variables. Model 2 includes the same

variables as Model 1 but with neighborhood (tract-level) education, poverty rate, and percent minority included in the regression. In the initial model, there is support for the first hypothesis. The coefficient on the *Association* variable is significant at the 95% confidence level. With the logged dependent variable and inclusion of the logged *Previously Assessed* variable, the coefficient on *Association* represents the percent change in property value when multiplied by 100. Therefore, properties located in any type of association, compared with properties not located in an association, appreciated in value, an average of 12.0% between 2004 and 2007, when holding all else constant. However, when neighborhood-specific variables are included in the model, being in any type of association is no longer significant. Examining the coefficient on *Association* in Model 2 shows the beta coefficient decreased and is no longer significant even at the 90% confidence level. The coefficient on *Poverty* is significant at the 95% confidence level, suggesting that as the neighborhood poverty rate increases, property values declined by approximately 0.3% between 2004 and 2007. The same negative relationship exists with the percent minority in the neighborhood. The *Minority* variable is significant at the 95% confidence level and suggests that for each percentage increase in minority population in the neighborhood, the property value depreciated by an average of 0.4% over the study period.

These results do not provide support for the first hypothesis that *any* type of association improves property values. This particular finding is not entirely unexpected. The *Association* variable includes three types of associations (homeowners, neighborhood, and condominium), which fundamentally are different types of organizations. Therefore, to truly understand the effect of neighborhood governance on property values, it is important to include an analysis where the *Association* variable is disaggregated into its components.

Table 5 provides a test of the second hypothesis that HOAs have a greater positive effect on property values compared with NAs. The table shows the results from the regression with association-type disaggregated into HOA, NA, and condominium association (*Condo. Assoc.*). The reference category for Models 3 and 4 is *No Association*, and the reference category for Models 5 and 6 is *NA*. Models 3 and 4 simply test whether the different types of governments have an effect on property value appreciation compared with properties not located in any type of neighborhood government; hence, the reference category is *No Association*. Models 5 and 6 provide the actual direct test of the second hypothesis, but I include Models 3 and 4 for comparison purposes, because it is also theoretically interesting to know how much properties in HOAs appreciated compared with properties in no type of association.

When the parcels are identified as being within a particular type of association, I find that HOAs have a significant positive effect on the parcel's

Table 5. OLS Regression Coefficients on the Logged Market Value of Parcels.

Variables	Model 3	Model 4	Model 5	Model 6
HOA	0.207*** (0.063)	0.133** (0.058)	0.257*** (0.078)	0.179*** (0.069)
NA	-0.050 (0.061)	-0.046 (0.056)	Reference category	Reference category
Condo. Assoc.	0.297** (0.142)	0.150 (0.125)	0.347*** (0.148)	0.196 (0.130)
No association	Reference category	Reference category	0.050 (0.061)	0.046 (0.056)
Log(Previously Assessed)	0.707*** (0.100)	0.593*** (0.119)	0.707*** (0.097)	0.593*** (0.119)
Log(Age)	0.316*** (0.037)	0.305*** (0.039)	0.316*** (0.037)	0.305*** (0.039)
Condo.	-0.004 (0.081)	0.064 (0.089)	-0.004 (0.081)	0.064 (0.089)
Education		0.005 (0.005)		0.005 (0.005)
Poverty		-0.003** (0.002)		-0.003** (0.001)
Minority		-0.004** (0.002)		-0.004** (0.002)
Intercept	2.415** (1.158)	3.919*** (1.404)	2.365** (1.179)	3.873*** (1.412)
N	620	620	620	620

Note. Standard errors are in parentheses and clustered by Census tract. In Models 3 and 4, the HOA, NA, and Condo. Assoc. variables are compared with the reference category of No Association (properties not located in any form of neighborhood government). In Models 5 and 6, the HOA, Condo. Assoc., and No Association variables are compared with the reference category of NA (properties located in NAs). HOA = homeowners association; NA = neighborhood association.

* $p < .10$. ** $p < .05$. *** $p < .01$ (two-tailed).

market value. Compared with parcels located in areas without governance, parcels located in HOAs, on average, experienced a 20.7% increase in parcel value between 2004 and 2007. This finding is significant at the 99% confidence level. Condominium associations also have a significant impact on property values in this limited model, but NAs do not have a significant effect.

Model 4 shows the full regression model with neighborhood-specific variables added to the analysis, and they have an important effect for understanding the impact of HOAs on property values. Neighborhood poverty rates and the percentage of minorities have a significant negative effect on property values, causing a 0.3% and 0.4% decline, respectively, in property values for the study period. These results are significant at the 95% confidence level. The coefficient on the HOA variable drops in value, but remains significant. Compared with parcels located in areas without governance, parcels located in HOAs, on average, experienced a 13.3% increase in parcel value between 2004 and 2007. Despite this decline in effect from the limited model, the effect of HOAs is still statistically and substantively significant. A 13.3% appreciation in property values in the study period represents an impressive growth rate for properties.

In Models 5 and 6, I change the reference category to *NA*, so that I can compare property value appreciation in HOA properties directly with properties located in NAs. The results provide support for my second hypothesis. In the limited model (Model 5), HOAs appear to increase property values by 25.7%, compared with properties in NAs, holding all else constant. However, neighborhood-specific variables also have an impact on property values, as shown in Model 6. Once these variables are included, the effect of HOAs declines, but they still have a statistically and substantively significant impact. Compared with properties located in NAs, HOA properties experienced a 17.9% value appreciation between 2004 and 2007, holding all else constant. This finding is significant at the 99% confidence level and provides strong support for my second hypothesis. Neighborhood poverty and percent minority both have significant negative effects on property values, decreasing property values by 0.3% and 0.4%, respectively, between 2004 and 2007. Interestingly, when moving from the limited to the full models, condominium associations lose their significance. The insignificant effect may be a function of the types of condominium associations located in Leon County, Florida. Unlike condominium associations in Southern Florida that are very exclusive neighborhood governments, condominium associations in Leon County represent a variety of diverse socioeconomic neighborhoods.

A potentially interesting finding is the lack of significance on the *NA* variable when compared with properties not located within any type of neighborhood government. On one hand, it would seem that NAs 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 NAs are organizationally weaker than HOAs. 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. In addition, NAs, unlike HOAs, 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.

In summary, Table 5 does provide support for my second hypothesis, that HOAs improve property values at a greater rate than NAs even when neighborhood-specific demographic and socioeconomic variables are considered. Support for the first hypothesis that *any* type of association improves

property values disappears once these variables are included in the models as seen in Table 4. Therefore, it does not appear that governance, per se, will improve property values, unless that governance is in the form of an HOA.⁶

Summary and 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 whether any type of governance has a positive effect on property values, while the second hypothesis tests whether HOAs have a stronger effect on property values than NAs. The results and subsequent interpretation from the OLS regression analysis do not support the first hypothesis that parcels in any type of RCA (neighborhood, homeowners, or condominium associations) have higher property values than parcels not located under the jurisdiction of an RCA. When HOAs and NAs are compared separately, there is strong support for the second hypothesis that HOAs have a greater positive impact on property values than NAs, which makes this study unique. The presence of an HOA improved property values between 13.3% and 17.9% in the area under study. This appreciation is substantially greater than the findings in a previous study on HOAs. This study is also the first empirical analysis of the effect of NAs on property values, and I find that these informal organizations have no effect on property values compared with their peer HOAs. The findings of this research are not only theoretically and empirically interesting for urban scholars and practitioners interested in the effects of neighborhood governance but will also hopefully spur additional debate and study of RCAs, given some of the limitations of this study.

One valid critique of analyzing house sales from a single county in the state of Florida is that patterns in Leon County may not generalize to other counties in the United States or even the state of Florida. No city or county is really “typical” of a city or county in the United States or even in a particular state. Although difficult to collect, data from multiple cities would enhance the generalizability of the findings of this study.

Future studies should examine how HOAs vary to determine the *specific* aspect(s) that allows them to improve property values. In my data set, the HOA variable is a dummy variable. Not all HOAs are identical, 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 an HOA or not, and to know whether properties are located in a weak or strong HOA. It is important to “open the box” concerning HOAs to see whether certain characteristics allow some HOAs to improve property values. One method to study the characteristics of associations is to actually

survey homeowners, neighborhood, and condominium association presidents to gauge the activities and strength of their organizations. Questions concerning the services provided, size of the board of directors, frequency of meetings, presence of committees, among other questions, would help researchers gain a better understanding of how these organizations vary. Obtaining information on the amount of monthly and/or annual dues would also be a key piece of information. Langbein and Spotswood-Bright (2004) successfully introduced this information in a case study of condominium associations in six neighborhoods in Alexandria, Virginia. Studies incorporating this information on a larger scale would increase the generalizability of results in the academic literature.

The time period under study also raises interesting questions and poses additional challenges for urban researchers. The dates of the analysis occur between 2004 and 2007, during the height of the housing bubble in the United States. Do the positive effects of HOAs on property values continue after the Great Recession and housing crisis? The results of this study cannot answer this question; they show that during the economic and housing boom, HOAs improved property values. Further investigation is needed to determine whether these associations shielded property owners from the negative financial effect of the housing crisis.

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

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Notes

1. "Residential Community Associations" (RCAs) is a term that carries multiple meanings. The legal literature only considers homeowners associations (HOAs) as RCAs. Much of the political science literature allows the term to also include neighborhood associations (NAs). For the purpose of this study, I use "residential community associations" to refer to both neighborhood and HOAs. These organizations have their respective differences, and when necessary, I will refer to them individually instead of using the term "residential community association."
2. These arguments concerning the effect of associations on property values are heavily rooted in public choice theory and based upon homeowners engaging in a rational decision-making process on whether or not to search for properties located in neighborhood organizations. Scaff and Ingram (1987), Kelleher and Lowery (2002), and Lowery and Lyons (1989) provided a critique of the rational choice model of residents making decisions based upon their rational self-interest as supposed by public choice theory.
3. Parcel information available at <http://www.leonpa.org>.
4. While the analysis of this article focuses only on neighborhood and HOAs, I also report figures and results for condominium associations as a statistical control.
5. It 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 3 to 6, I change the reference category and identify it where applicable.
6. The trend in the inception of association formation presents potential endogeneity issues that cannot be resolved with the ordinary least squares (OLS) regression analysis. Does the causal arrow go from the formation of an RCA to an improvement in property values, or vice versa? There is no theoretical reason to think an endogenous relationship exists between property values and the HOA variable. HOAs usually form prior to many residents purchasing homes in the development. Therefore, changes in property values would not affect the likelihood of neighborhood residents forming an HOA. However, for NAs, this relationship is not so clear. To address this issue, I use a limited-information maximum-likelihood (LIML) instrumental variable regression model (Gawande and Li 2009), with distance from the central city as the instrumental variable. The results of this analysis reveal no significant relationship between NAs and property values.

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