A Valuation of Historic District Designation in Atlanta

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MCRP 2014

Georgia Institute of Technology

Acknowledgements:

I want to express deep gratitude to my adviser, Dr. Nisha Botchwey, for guiding and supporting me through this entire process. I would also like to thank Allison Duncan for sharing her knowledge and ideas on preservation in Atlanta. Special thanks go to Atlanta realtors, Anna Kilinski and Derrick Duckworth, for providing data that made this project possible. Finally, I want to thank my parents for their unending support and encouraging words throughout my education and career.

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Introduction:

It is a well-established notion that historic district designation results in increased property values (Rypkema, 2005). Many cities have employed these historic preservation policies in an effort to catalyze inner-city redevelopment efforts. It is difficult, however, to assume that all geographies will ascribe the same monetary value to historic preservation, especially across socioeconomic barriers. Historic and cultural resources are prized in most communities for their authentic representation of a neighborhood's past. This *authentic* representation can be described as a way to promote the true story of an area, or the distinctive and tangible experience of a place that is supported by historical fact (Wiles, 2007). This often refers to a building or place's material or architectural integrity, but authenticity can also be described as a social construct concerned with intangible traditions just as much, if not more than the preservation of the original architecture. Thus, the historic authenticity of the neighborhood is lessened if the community members that share connections with these historic resources are displaced due to the rising property values simultaneously touted as a policy benefit. When dealing with historic districts and neighborhoods it is especially important to recognize the community members and residents themselves as sources of historical authenticity, especially if the historical significance associated with the neighborhood is directly related to the people who have lived there. Despite the common misconception that historic districts are often located within wealthy homogenous neighborhoods, given Atlanta's rich civil rights history, several of the City's historic districts are located in historically low-income African American neighborhoods, and thus may be susceptible to displacement resulting from increased property values.

This paper explores the impact of historic designation on housing prices in Atlanta through a series of regression and spatial analyses in order to determine the dollar amount increase in property values, and how this varies across different socioeconomic levels in the City. A brief background of historic preservation policies and impetus for gentrification in the context of Atlanta is discussed in the next section. The following section reviews the pertinent literature on methods for measuring the economic impact of historic designation. This is followed by descriptions of the data, model specification, and descriptive statistics. Following the methodology, the results of the regression analyses are presented and interpreted. Finally, the results of these analyses are used to examine Atlanta's current historic preservation policies and identify opportunities for a more equitable distribution of policy benefits.

Policy Background

Historic Preservation, or the conservation and protection of monuments and places deemed historically or culturally significant, has become an important tool for community revitalization. Though it began through grassroots movements much earlier, preservation efforts gained momentum and support in reaction to destructive Urban Renewal projects in the 1950s and 60s. During this time, residents in existing urban neighborhoods began recognizing the importance of their older buildings, including commercial, residential and institutional in sustaining a sense of community. Historic Preservation became legitimized by the Federal Government with the National Historic Preservation Act of 1966, which among other things, established the National Register of Historic Places and encouraged

the designation of locally protected historic districts.

The focus of this paper lies with the benefits associated with the designation of historic districts, rather than individual structures or monuments. A historic district is defined as a geographically definable area possessing a significant concentration, linkage, or continuity of sites, buildings, structures, or objects united by past events or aesthetically by plan or physical development (Tyler et. al., 2009). The first historic district was designated in Charleston, SC in 1931, but district designation did not become a prevalent preservation tool until the 1960s. Typical criterion for designation include an area having special character of aesthetic, cultural, or historic value; or represents one or more styles of architecture typical of an era in the history of the area. Districts can be designated as historically significant at the local, state, and national levels, all of which offer varying levels of protection.

National level designation is realized through listing on the National Register of Historic Places. The National Register serves as the official list of all buildings, structures, sites, objects, and districts in the country having significance worthy of recognition and protection. The U.S. Department of the Interior maintains the Register, currently consisting of over 80,000 district listings, 30 of which are located within the City of Atlanta. Nominations are often prepared by local preservation organizations or government agencies, which are then formally submitted by the State Historic Preservation Office. The purpose of listing a property or group of properties on the National Register is to recognize its significance and to encourage, but not mandate its preservation. Listing makes property

owners eligible for federal historic preservation grants and tax benefits for rehabilitation projects. The National Register also ensures that all listed properties are considered in the review of any federally funded, licensed, or permitted projects to determine and minimize the effects of said projects on historic resources. Listing on the National Register does not invoke local historic preservation zoning or designation and thus does not restrict the rights of the property owners or protect the property from demolition.

The next level of designation happens at the state level. The Georgia Register of Historic Places operates similarly to the National Register. The Register is administered by the Georgia Department of National Resources Historic Preservation Division. Listing on the Georgia Register makes property owners eligible for state historic preservation grant programs and tax benefits, as well as requires the review of state funded, licensed, or permitted projects but again, does not enact any local zoning ordinances or restrict private property owner rights. All properties in Georgia that are listed on the National Register are also listed on the Georgia Register of Historic Places, though not vice-versa. None of the historic districts in the City of Atlanta are designated at the state level only.

The final and most impactful level of historic designation is the local historic district. Local districts are designated by Certified Local Governments (CLG) which are usually cities or counties authorized by the State Historic Preservation Office as having a certified historic preservation commission and staff members. CLGs have the power to identify local resources and impose zoning and development restrictions in the form of historic preservation ordinances and design guidelines. The CLG program was established by the

National Historic Preservation Act so that local governments could determine and address individual communities' specific preservation needs. The City of Atlanta has 14 locally designated historic districts; all of which are governed by the City's historic preservation ordinance and have their own set of design guidelines administered by Atlanta's Urban Design Commission. The design guidelines are enforced through the requirement that all renovation and construction work, or any exterior changes to properties within the district, must receive a certificate of appropriateness (COA) from the Urban Design Commission. The COA certifies that all construction plans uphold the historic character of the original structure and district before any construction permits may be obtained. The intent of the COA is not to require that new construction be reproductions of older structures, but to ensure that it is complementary to other properties in the historic district in terms of scale, height, bulk, and design. The design guidelines are specific to the designated district and some may be considered stricter than others, requiring specific materials and character design standards.

The varying levels of designation and significance also play a role in how property values are affected by the policy. Because properties within local districts are tied to design guidelines and subject to a professional historic preservation commission and staff to enforce and ensure the preservation of the neighborhood's historic character, they are anecdotally considered to have a greater attached value increase than National Register districts (Rypkema, 2002). Those same characteristics of local districts, however, have also been attributed to property owners' concerns that historic district designation has a detrimental impact on property values because it restricts what they can do with their

property. Because historic preservation ordinances restrict demolition and major alterations, some property owners fear that this regulation prevents a property from achieving its highest and most valuable use (Alteri et. al., 2011) Thus, it becomes a highly localized question of whether the market places a higher value on the aesthetic and historic nature of the property and neighborhood or unhindered property rights. The property value increase attached to National Register historic districts is less controversial, but still an important consideration. This added value is again dependent on the real estate market's valuation of historical significance, or the premium added by buyers and agents for historic properties. The eligibility for grants and tax benefits for rehabilitation projects within National Register districts can also add significant value to the affected properties (Rypkema, 2002).

Summary table of historic designation levels

	Protections Offered	**Additional Benefits**
National Register of Historic Places	Section 106 – requires special consideration of potentially affected historic properties in all federally funded or sponsored projects	Eligible for 20% Federal tax credit for rehabilitation of contributing historic properties in district Eligible for Federal grant programs to fund preservation efforts
Georgia Register of Historic Places	Requires special consideration of potentially affected historic properties in all state funded or sponsored projects	Eligible for State tax credit for rehabilitation of contributing historic properties in district Eligible for state grant programs to fund preservation efforts
Local Historic Districts	Architectural Design Guidelines Local Historic Preservation Ordinance Protection against demolition	

Context of Historic Preservation in Atlanta

The City of Atlanta's historic preservation movement began as many cities' in the United States did, as a grassroots reaction to urban renewal and interstate construction in the 1950's. Despite these efforts, Atlanta's constant progressive and growth-oriented development patterns resulted in limited preservation of much of the City's historic core. The Georgia Historic Commission (GHC) was established in 1955 to designate places with historic significance, and was expanded in 1969 following the 1966 National Historic Preservation Act (NHPA) to what would eventually become the State Historic Preservation Office (SHPO). The SHPO is responsible for administering statewide preservation efforts including nominations to the National Register of Historic Places. The Georgia Trust for Historic Preservation was established in 1973 as the state's non-profit preservation organization to advocate for and provide resources for the preservation of historic sites throughout the state. Both the Georgia SHPO and Georgia Trust are located in Atlanta.

Many of Atlanta's early preservation efforts came out of the NHPA's Section 106 requirement, which requires the review of all federally funded projects like highways, bridges, affordable housing, and urban redevelopment projects for potential impact on historic resources. These reviews were often drawn out and could be contentious. Projects of this nature that led to historic district designation in Atlanta include the "Presidential Parkway" which resulted in Freedom Parkway in the Druid Hills neighborhood and historic district, as well as the Martin Luther King Jr. historic district. These projects were both intended to demolish historic homes and businesses for federally funded transportation projects, but the Section 106 process combined with significant community organization

successfully preserved these neighborhoods and their rich heritage (Lyon, 1999).

The Atlanta Urban Design Commission began a series of intensive field surveys of the City's historic resources in 1975, eventually resulting in the first local historic district designations in 1985. These historic resource surveys have continuously been conducted to update and expand upon the City of Atlanta's designated historic sites and districts. The Atlanta Zoning Ordinance was simultaneously updated in the 1980's to include Historic and Cultural Conservation Districts to protect significant properties and areas from redevelopment. The citywide historic preservation ordinance was enacted in 1989 to govern the preservation of locally significant sites and districts. With the development of the local historic districts, historic preservation efforts in Atlanta began moving from landmark driven projects like the Fox Theater, to neighborhood and community preservation.

Atlanta policy has generally focused on promoting development rather than concern for preserving the cultural history or preventing displacement of established communities (Holmes, 2011). During the 1950s, 60s and 70s while the preservation movement was beginning, Atlanta was also experiencing white flight, as the white population relocated to suburbs in DeKalb, Cobb, and Gwinnett counties. During this time, the African American community in the City thrived, and the cultural and social fabric of many historic neighborhoods was enriched. This social phenomenon was reversed when neighborhoods in the City began gentrifying in the 1990s, spurred considerably by Olympic redevelopment (Lyons, 2008). Many have causally attributed this gentrification to policies like historic

district designation, which is thought to increase residential property values (Holmes, 2011).

Today the major forces behind historic preservation in Atlanta are the State Historic Preservation Office, or HPD; the Georgia Trust for Historic Preservation; the Atlanta Preservation Center, a local nonprofit advocate for preservation efforts in the City; and the City of Atlanta's Urban Design Commission that continues to designate and enforce local historic districts.

Literature Review

There is no shortage of supportive literature attributing higher property values to historic designation policies (Rypkema, 2005). A limited, yet significant amount of research has been conducted using real property value data to account for the actual policy-ascribed monetary value increase or decrease from properties and districts designated historic. The most robust of these studies take the form of statistical regression analyses. The results of these analyses show that the impact of the policies on price varies across localized studies and empirical methods. Taking place in various cities across the United States, the different approaches seem to have evolved chronologically, each challenging the validity of the model of the previous study on such bases as possible omitted variable or endogeneity bias. This review considers these lessons learned from the quantitative studies, while contrasting with more qualitative approaches. Literature addressing Atlanta's contentious history with preservation and gentrification is also considered in order to determine how best to develop a model to valuate preservation policies in Atlanta.

Predominant Quantitative Methodologies

Most of the quantitative studies conducted on this subject fall into two different pedagogies of policy regression analyses: either a time series difference-in-differences model or a hedonic model. The latter is more common due to the difficulty in collecting pre- and post-policy data, as well as its ease of interpretation. A linear hedonic model fits the problem addressed in this paper as the coefficient of a dummy variable can be interpreted as the dollar for dollar change in the house price associated with the independent variable representing presence of historic designation (Chatterjee et al., 2012).

The foundational academic studies to determine if historic designation actually increases residential property values utilized simple hedonic regression models in the late 1980's (Ford, 1989; Coffin, 1989). Almost a decade later, David Clark (1997) initiated a linkage between the results of the hedonic model and ensuing gentrification. His study further established the use of hedonic price theory in order to weigh the positive and negative externalities of historic designation on properties to determine the net effect of the policy. His results suggested that district designation does generally add value; however, the more concerning conclusion of the article was his statement on the success of a historic district being directly linked to its ability to gentrify (Clark, 1997). Leichenko and Coulson (2001) built upon these conclusions in their study of price impacts in historic districts in Texas. Their hedonic model utilized tax appraisal records, in place of sales transaction data, and demonstrated all positive price externalities for houses within historic districts (Leichenko et al., 2001).

When completing a similar study, Noonan and Krupka (2011) found several issues with the previous hedonic models used to attribute increased property values to historic designation. They stressed the importance of using actual sales transaction data instead of relying on municipal tax data, as the true value of the home is better represented by what it will be bought and sold for, rather than what is assessed or appraised for. The study considered not only the direct impact of designation on properties within districts, but also what prices did to properties not designated, but in close proximity to historic properties. In doing so significant omitted variables bias was discovered. The simple hedonic aligned with the results of previous studies finding that landmark prices are higher, though after

accounting for spatial dependence in the data using a more robust estimator this price increase proved to be less significant. They concluded that the model did not provide enough concrete evidence of all price effects of historic preservation programs. While the results show that landmark designated properties sell for a greater price, it has proven difficult to definitively distinguish these effects from other unobservable traits of the property that are correlated with designation status (Noonan et al., 2011). In order to consider the effects of designation on properties not within, but near historic districts, a larger sample size than what was available for this study in Atlanta is necessary.

In an earlier study Noonan (2007) researched the impact of applying a repeat-sales framework to the hedonic method in an article on the price impacts of historic designation of attached housing in Chicago (Noonan, 2007). Because these properties were designated more recently, enough data was available to complete a time-series, or repeat-sales approach in addition to the simple hedonic. The two stage model utilized in this study was the first of its kind to measure the determinants of historic preservation policy making. He found that the two-stage least-squares estimator offered more robust evidence of causal price impacts of historic preservation policies than most previous studies' methods and data permitted. The extra step in this model ensures that all exogenous neighborhood and property characteristics that may affect the price are accounted and controlled for (Noonan, 2007). Alteri and Heintzelman applied a similar modified hedonic model to the Boston-Cambridge-Quincy Metropolitan region (2011). They used MSA housing data to employ first a simple hedonic price regression model, which found a positive price increase for properties designated historic. The study then followed Noonan's approach and applied

a repeat-sales framework analysis using pre- and post-designation sales data to control for the tendency of higher value homes to be located in historic districts. After the repeat-sales approach was applied to the model, the results showed that designation within a local historic district, all of which have attached design guidelines, actually reduced home prices between 11 and 15 percent (Alteri et al., 2011). This indicates that any restrictions implied in the creation of a local historic district outweigh any benefits to homeowners within districts in the Boston area. Consequently, this study is one of the few analyses published that found a negative price causality from historic district designation and design guidelines. An earlier study conducted in Chicago resulted in similar findings, where nationally designated historic districts positively impact property values, while locally designated districts have a negative impact (Millerick et al., 1991). This difference in price impact between locally and nationally designated districts is a reasonable hypothesis to investigate in Atlanta's districts as well, due to the design guidelines enforced on local historic districts. Thompson and Rosenbaum (2009) conducted a study in Lincoln, Nebraska utilizing a methodology similar to these repeat-sales frameworks, yet found all-positive causality for price increases from historic designation. Instead of employing a hedonic model, the authors were able to complete the arduous task of collecting full pre- and post-designation property data of matching historic and non-historic properties from tax assessor records over a 25 year period in order to conduct a time series regression analysis. This difference-in-differences model showed an average increase of $5,000 in sales price after properties have been designated historic (Thompson et. al. 2009).

A recent study focused on the Baton Rouge, Louisiana housing market best aligns with the

analysis of Atlanta due to the type of data and methodology and the authors' attention to the implications for gentrification with increased property values (Chatterjee et al., 2012). The authors employed a linear hedonic model to determine overall value added by districts, but then applied an additional quantile regression. This quantile method tests the hypothesis of heterogeneity and estimates how the explanatory variables vary across the distribution of house sales by price. This in turn shows if the historic preservation policies affect houses in the lower quantiles differently from those in the mid to high quantiles. These results found that low-end properties report stronger price increases due to historic designation, which is acknowledged as translating into more displacement of low-income residents (Chatterjee et al., 2012).

Other Policy Evaluation Approaches

Regardless of whether positive or negative price impacts were determined in the above studies, a theme remains that results of the hedonic model do not measure the effectiveness of the policy and should not be seen as a critique of the program. The next section reviews studies that have taken a more qualitative approach and do attempt to analyze the overall effectiveness of preservation policy.

Phillips and Stein (2011) developed an indicator framework to measure the positive impacts of historic preservation policy. The indicators fell into four major categories: gauging (related to type and amount, perceptions and regulations), protecting (ordinances and regulations), enhancing (partnerships and incentives), and interfacing (uses). This conceptual analysis of linkages between historic preservation and the economic vitality of a

neighborhood is outside of the scope of this paper but presents an opportunity for continued research on the economic benefits of historic preservation in Atlanta to complement the results of this paper's quantitative analysis. Gilderbloom, Hanka, and Ambrosius (2009) also attempted to support the benefits of historic preservation policy using the National Park Service's Preservation Economic Impact (PEI) Model, as applied to Louisville, Kentucky. This model included both qualitative policy indicators as well as a simple least squares regression model. The study, however, had admittedly limited data and did not take into account omitted variable bias, and thus would not stand up against one of the more robust quantitative models presented in the previous section.

A few notable studies have attempted to quantify the impacts of historic preservation policy at a generalizable level employing multi-city applications. The planning department in Athens-Clarke County, Georgia conducted a study on the economic benefits of historic preservation in three small Georgia cities, but did not include Atlanta or any of the surrounding area (Morgan, 1997). The study did not utilize a hedonic model, but rather a basic indicator framework, which included if property values had increased, but did not control for any additional variables that likely played a part in this increase. Another multi-city study did include Atlanta, but only looked at one historic district compared to one non-historic neighborhood in each city (Ijla et al., 2011). Though the study found a significant value increase in the historic district examined over the non-historic neighborhood, these results are not easily extrapolated to all of Atlanta's districts and again several variables that may attribute to the price increases are not accounted for. The above studies inform this analysis of Atlanta by providing an understanding of all possible economic externalities

resulting from historic designation and the different ways in which they can be measured.

Implications for Gentrification

An important aspect to consider when addressing housing price increases caused by a municipal policy is the implication for gentrification of neighborhood residents. This is especially important in historic preservation when dealing with preserving neighborhood authenticity, both of the architecture and the community that interacts with it. The impact on existing residents in historic neighborhoods, and the question of their impending displacement has been studied extensively in the realms of preservation, planning, and social justice (Maher et al., 1985; Schneider, 2001; Howell, 2008) Dennis Gale (1991) conducted an early study on the impacts of historic designation on disadvantaged populations in Washington DC. He claimed that planners' support of historic preservation policy can often belie the community members' concerns for gentrification. Gale determined that property value increases due to designation were inevitable, but that the timing of the designation within the overall revitalization effort could have an effect on whether displacement occurs. He concludes that rather than attempting to initiate reinvestment, historic designation should follow other redevelopment efforts, such as neighborhood plans that recognize the importance of preserving historic structures as well as maintaining affordable housing (Gale, 1991). Howell (2008) further addressed this issue of managing gentrification from historic district designation. He stressed the importance of both the planners or preservationists as well as residents understanding that the ultimate purpose of historic preservation is not to increase property values at all costs, but that it is a policy tool to improve the quality of life for those already living in America's historic

downtowns. He goes on to suggest that gentrification from policies that resulted in increased property values cannot be logically denied, but establishing a causal relationship between the displacement and historic designation may be more difficult (Howell, 2008). Both of these studies suggest that in order to have the greatest impact without gentrification, local historic district designation should be accompanied by an updated neighborhood plan, zoning amendments, and appropriate code enforcement. Of the fifteen locally designated historic districts in Atlanta, only three are accompanied by a neighborhood development plan (see Table 1 in appendix).

After completing the hedonic study discussed in the previous section of this review, Leichenko and Coulson (2003) conducted a follow up study to address the question of causal gentrification. The study used a combination of filtering and tipping time series regression models in an attempt to quantify any implied demographic turnover in historic districts based on previous gentrification studies (Bond et al. 1989). The results of their model disputed Howell's claim by concluding that no significant change in neighborhood demographic composition is associated with historic designation (Leichenko et al. 2003).

Ebenezer Aka (2011) brings the issue of gentrification resulting from historic districts to the impacts being felt in Atlanta. Aka concurs with Howell's thesis and accuses planners and preservationists of often remaining willfully ignorant to the understanding of gentrification being more than just the upgrading of devalued property. However, Aka suggests that because many of the past occurrences of gentrification in Atlanta were based on historic preservation efforts, current gentrification is less dependent on unique

architecture, inferring that historic preservation policy in its current state may not play a role in the future gentrification of Atlanta's neighborhoods. Whether this view is accurate or not, Reid and Adelman (2003) suggest that any policy which may have implications for gentrification should be carried out very carefully due to Atlanta's history of class and racial tension. Their article explains the waves of gentrification that Atlanta has seen since the introduction of suburban sprawl, and the sensitivity of the City's demographic mix (Reid et al., 2003). A New York Times article echoed these tense changes within Atlanta's urban fabric. It points to one of the neighborhoods analyzed in this paper, the Historic Old Fourth Ward, changing from 94% African American in 1990, to less than 75% in 2005 (Dewan, 2006). The article also brings up the irony that many of Atlanta's historic districts having achieved their historic significance from involvement in the civil rights movement are the same districts experiencing gentrification.

This review briefly explained much of the relevant studies coming out of historic preservation and planning literature that focus on the impacts of historic preservation policy on housing prices and how this analysis may be applied to the City of Atlanta. The primary method for an investigation of this nature is a modified hedonic regression model. Further, in the application to Atlanta attention must also be placed on any negative externalities that may be tied to housing price increases caused by preservation policies including the gentrification or community displacement in historic districts within historically low- to moderate-income neighborhoods. Thus far, there has been little to no substantive research investigating the impacts of preservation policy on communities in Sunbelt cities like Atlanta; a gap in which this paper intends to fill.

Data and Methodology:

Data

The sample data collected for the analysis in this paper is comprised of broker assisted residential property transactions from the Multiple Listing Service (MLS) from 2007 to 2013. The data includes a random sample of home sales between $95,000 and $500,000 to control for houses in especially poor condition or very high-priced homes. The final data set consisted of a random sample of 3300 transactions over the 6 year period. The sample was provided by two Atlanta area realtors. This data is considered more reliable because it represents the actual observed market value, and is not determined by the subjective judgments of an appraiser. Most of the literature supports this idea, as MLS data has been used in several academic housing price impact studies (Alteri et al., 2011; Chatterjee et al., 2012; Clark, 1997; Noonan 2007). One disadvantage of using MLS data rather than appraisal data is that it can only capture the value of homes that have actually sold, instead of assigning values to all properties, sold or unsold. The map in figure 1 shows the distribution of National Register and locally designated historic districts and the collected home sale data. It should be noted that due to the randomness of the sample, not every historic district or neighborhood in the city is equally represented in the data.

The MLS data was delivered in a table with address, number of bedrooms and bathrooms, year built, year sold, and final sale price. This table was then imported into ArcGIS so that the property records could be spatially joined to the locational variables. Each property was joined to the corresponding census tract and Neighborhood Planning Unit (NPU) and then to the appropriate district if it is located within a historic district. The database file

was then exported into a statistical analysis manager to create dummy variables and carry out the regression analyses.

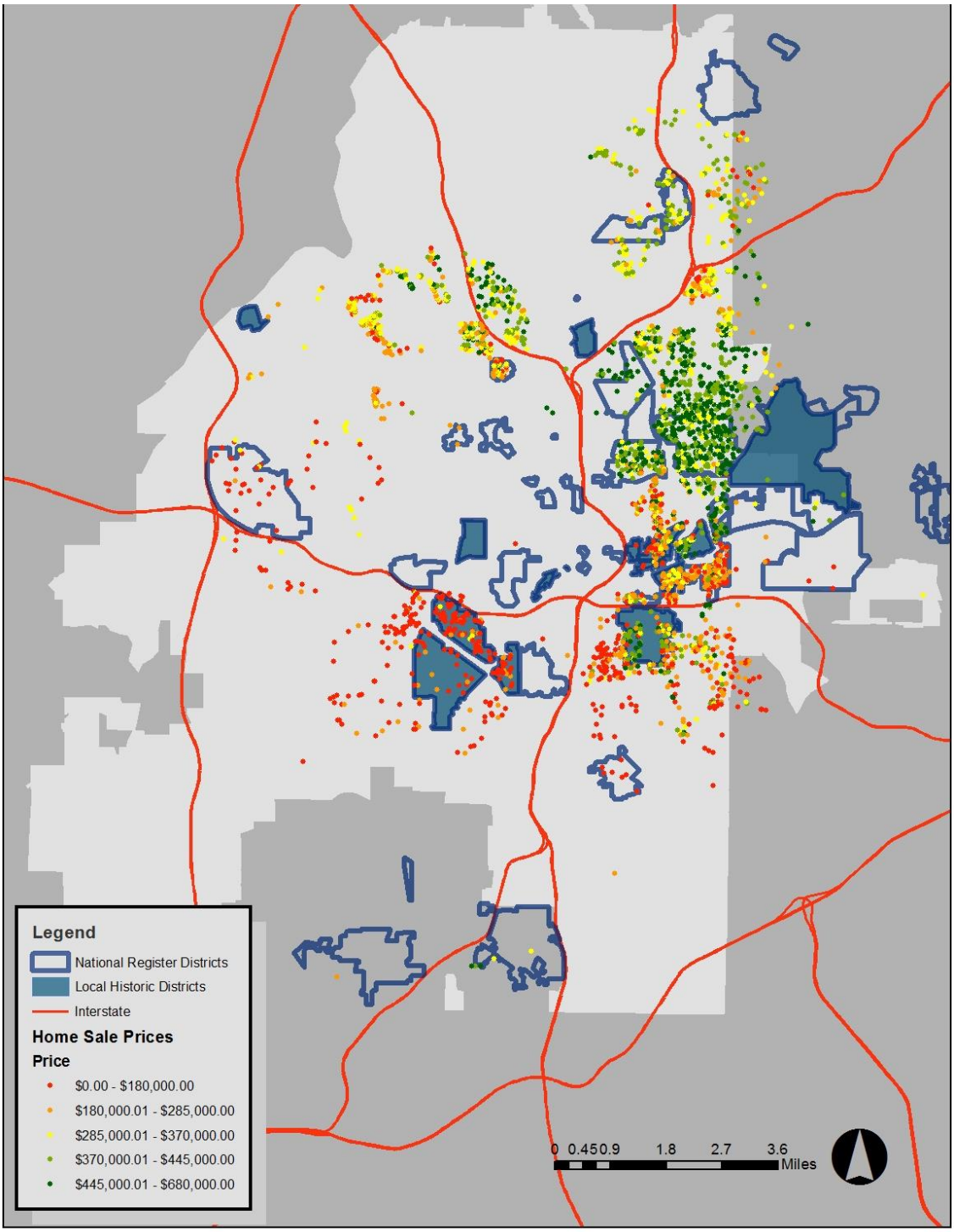

Figure 1: Map of property data by price over Atlanta's historic districts

Hedonic Model

This paper employs a simple linear hedonic regression model to determine how much if any monetary value increase can be attributed to historic district designation. The hedonic method is supported throughout the literature for its reliability and ease of interpretation. A hedonic model assumes that the final sale price of a home is a function of a set of characteristics, including the physical condition and age of the house, the locational or neighborhood characteristics within which the house is located, the temporal market characteristics, and any regulatory factors that can affect a buyer's choice to purchase a home (Alter et. al., 2011). All of these characteristics can be impacted by historic district designation. The final price at which the home is sold, not for what is was listed, serves as the dependent variable in the model, or the variable that is affected by historic district designation and various control variables. The variables included in the model are largely represented by dummy variables and can be categorized into 4 components: the physical characteristics of the house, the market characteristics or time of sale, locational and neighborhood characteristics, and the presence of a historic district.

The physical characteristic variables include standard features such as number of bedrooms and number of bathrooms coming directly from the MLS sale report. Also included in this category is the year-built control variable. Many hedonic models include year built as a regular linear variable, assuming that the older the house, the greater detriment in value. This assumption, however, is not as applicable in historic districts, as value can be attributed to the antiquity of the architecture. Therefore instead of a linear variable, dummy variables are utilized for decades of possible year built, beginning in 1860

(the earliest construction year in the sample) to homes built since 2000. The condition of the market at the time of the sale is addressed in the model by the year sold control variable. Dummy variables are utilized for year of sale beginning in 2007 and ending in 2013. This factor is especially important given the years of sample data and Atlanta's experience in the housing crisis in 2009, from which the City is still recovering.

One of the most significant factors in determining the price of a home within a city is the location and characteristics of the neighborhood it is located within. A dummy variable for each Neighborhood Planning Unit (NPU) is used to control for neighborhood characteristics. The City of Atlanta is divided into twenty-five Neighborhood Planning Units. These units are groups of relatively similar neighborhoods that serve as the basis for planning and public decisions in Atlanta. In addition, quality of life indices created by Georgia Tech's Center for Geographic Information Systems (2013) have been applied to the NPUs which will further bring to light additional unobserved neighborhood characteristics. Quality of life is inherently subjective but can be understood as an area with high accessibility to neighborhood amenities and services, low crime rates, and good educational opportunities (Botchwey, et. al. 2014). Determinants considered in the quality of life indices include neighborhood amenities like access to parks and retail, the jobs to labor force ratio, the homeownership affordability ratio, the rent affordability ratio, vacancy rate, violent and property crime rates, number of vehicle crashes, transit access, and mean travel time. In addition to NPU's, a variable for median income at the census tract level is also included to strengthen the model's control for socioeconomic factors at the neighborhood level.

The primary independent variable in the hedonic models represents the presence of historic preservation policy. These will include a dummy variable for properties within a National Register historic district, as well as two separate variables for properties within locally designated districts representing the presence of design guidelines, and a variable for properties within a National Register district that is not also a locally designated district. This statistic is determined through a simple point-in-polygon spatial join in Geographic Information Systems software.

Segmented Regression

A hedonic model assumes that the property effects of historic designation are constant across geographic areas and distribution of houses by price (Chaterjee et. al., 2012). This is likely not the case, especially in Atlanta, given the stark socioeconomic differences in some of the areas of the City where historic districts are located. To address this issue, a partitioned or segmented regression model is applied to the results from the previous hedonic model to estimate how effects of the explanatory variables vary across different neighborhoods according to income and quality of life.

The data set is partitioned into three equal quantiles: properties within census tracts with a median annual income less than $29,857, designated low-income; properties within census tracts with a median annual income between $29,858 and $57,528, designated moderate-income; and properties within census tracts where the median income is between $57,528 and $207,734, designated high-income. This addresses the heterogeneous nature of households in Atlanta and how housing characteristics may be valued differently across

different income levels. For example, families earning less than $30,000 per year are likely influenced by historic designation differently from buyers in higher income quantiles. As the coefficients and statistical significance differ among the quantile groups, observations can be made about the value ascribed to historic preservation across demographic groups in the City. The same process is then applied to the dataset based on quality of life ranking by NPU. Three analyses are completed based on the properties' location in NPUs with high quality of life, or ranking between 1 and 8; moderate quality of life, ranking between 9 and 16, and low quality of life, ranking between 17 and 25. This analysis will shed light on the varying influence of historic districts in neighborhoods with differing levels of access and amenities.

The segmented regression analyses bring to light any disparities that may be present in the impacts felt by historic designation based on neighborhood and socioeconomic characteristics. This will be further discussed in a spatial analysis of these impacts. The maps shown in figures 2 and 3 show the geographic distribution of the historic districts over the 3 quantiles of income and quality of life ranking by NPU.

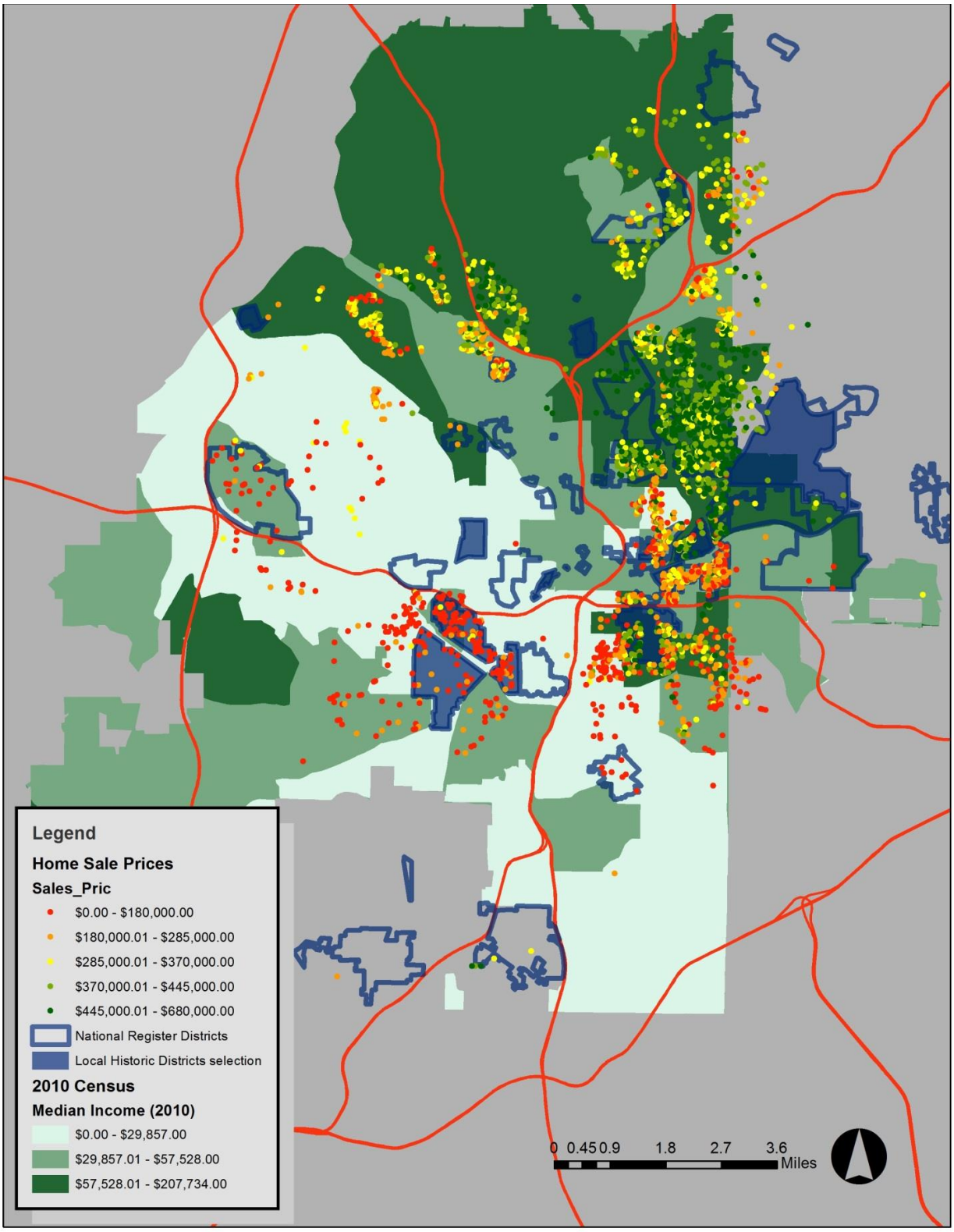

Figure 2: Map of property data by price over low, medium, and high-income quantiles

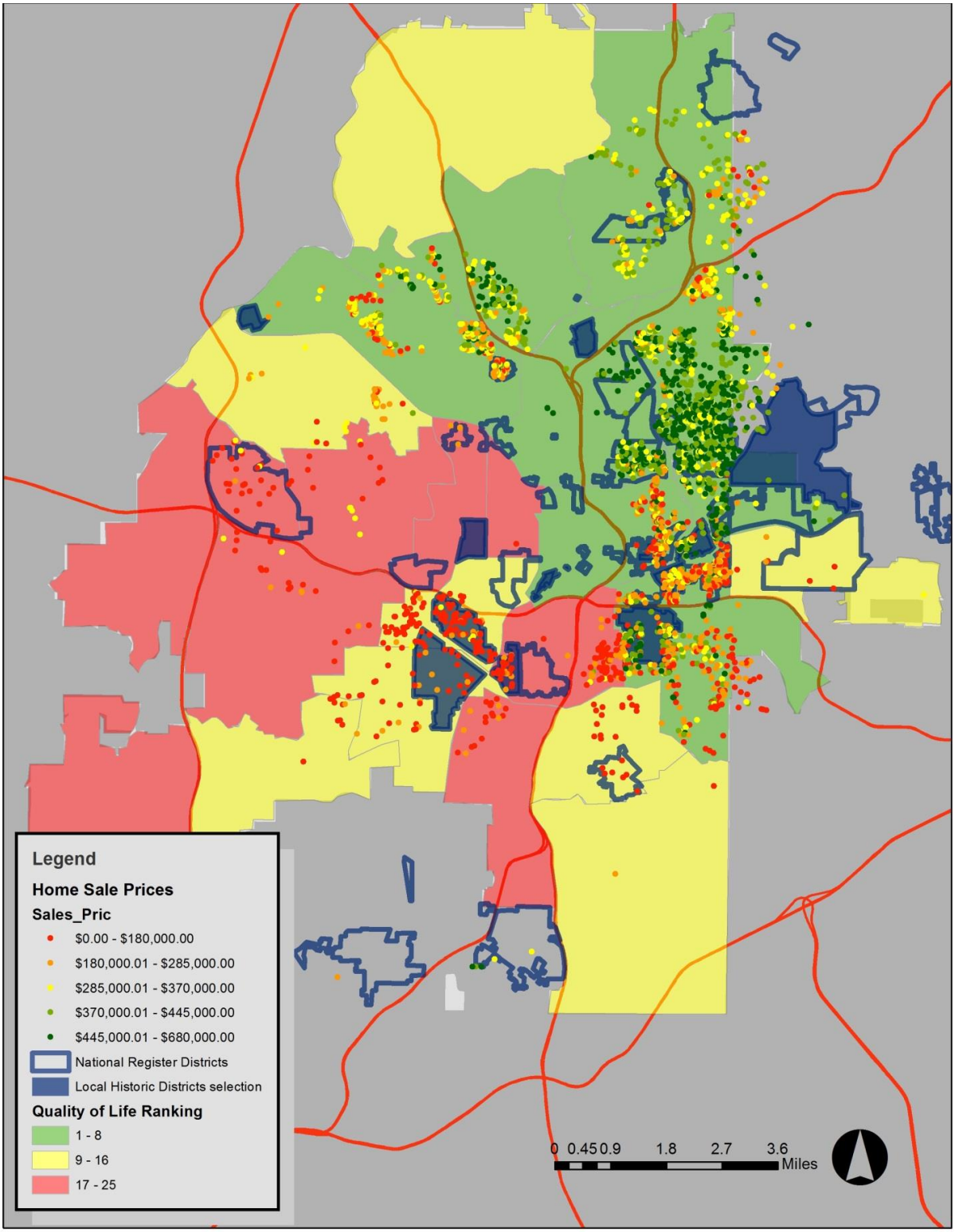

Figure 3: Map of property data by price over low, medium, and high quality of life quantiles

Results

The initial regression is a simple hedonic model used to determine if value is consistently added to properties within historic districts. This analysis found a positive and significant effect on home sale prices within National Register historic districts in Atlanta, without consideration of which districts are also locally designated. The overall explanatory power of the model is satisfactory with a coefficient of determination of approximately 65 percent. As shown in figure 4, an average of $13,000 is added to homes sold within historic districts versus comparable homes that are not located in a district.

Model Summary			
R	**R Square**	**Adjusted R Square**	**Std. Error of the Estimate**
.79	.63	.62	79346.97
Independent Variable	Coefficient	T	Significance
In Historic District	13,110.66	3.538	0.000

Figure 4: Model 1 Summary Table (full regression results in appendix)

The second analysis attempts to determine if there is a discrepancy in the price benefits between locally designated districts that are tied to a historic preservation ordinance and design guidelines and National Register district designation, which is more honorary in nature. The results of this analysis show a positive and significant effect on home sale prices of properties within locally designated historic districts; however, the coefficient for price in National Register districts that are not locally designated comes in positive yet insignificant and thus cannot be considered to consistently add value. The results shown in figure 5 indicate that location within a local historic district adds an average of $25,000 in value, while the location in non-locally designated historic district remains statistically insignificant. This result supports the idea that the aesthetic benefits from the historic preservation ordinance and district design guidelines outweigh any skepticism of diminution of property rights.

Model Summary			
R	**R Square**	**Adjusted R Square**	**Std. Error of the Estimate**
.79	.63	.62	79700.05
Independent Variable	Coefficient	T	Significance
Local District	25,619.43	4.895	0.000
NR District (not local)	6604.28	1.529	0.126

Figure 5: Model 2 Summary Table (full regression results in appendix)

The results of the regression models also suggest that designation should not be thought of as independent to other property and neighborhood characteristics. All of the dummy variables controlling for the NPU, or neighborhood characteristics, in the models are statistically significant with either positive or negative coefficients (ranging from reducing price by $200,000 to increasing price by $76,000) confirming that neighborhood or locational characteristics are extremely important in determining housing prices. Year sold variables also came in statistically significant, as the difference in selling property in 2007 and 2009 and even 2012 is very important in price calculation. Year built variables, however, are not as significant as expected.

Segmented Regression Results

The segmented analysis is then applied to the data set by running the regression with the low, moderate, and high-income group parameters. The results of the segmented analysis show a positive and significant impact on housing prices within high-income census tracts, while no statistically significant impact on prices in low-to moderate-income census tracts is found suggesting that a higher value is placed on historic district designation in higher income communities. The table shown in figure 6 indicates that an average of $20,000 dollars is added to residential property values in locally designated historic districts within high-income census tracts, but no significant value is added within National Register districts or any district in low- to moderate-income areas.

Low Income Quantile			
Independent Variable	**Coefficient**	**T**	**Significance**
Local District	13,372	1.362	0.174
NR District (not local)	-2,928	-.213	0.831
Moderate Income Quantile			
Independent Variable	**Coefficient**	**T**	**Significance**
Local District	14,911	1.636	0.102
NR District (not local)	-19,501	2.311	0.021
High Income Quantile			
Independent Variable	**Coefficient**	**T**	**Significance**
Local District	20,569.44	2.7	0.007
NR District (not local)	21,165.57	3.761	0.000

Figure 6: Model 3 Summary Table (full regression results in appendix)

The final regression analysis is the segmented regression based on properties located within neighborhood planning units with low, moderate, and high quality of life rankings. Similarly to the income based analysis, the results show that districts within NPU's with a high quality of life ranking benefit from a positive and significant price increase, while districts within NPU's with low to moderate quality of life ranking do not receive any statistically significant price benefits from historic district designation. It also suggests here that in neighborhoods with existing high quality of life rankings, both local and National Register districts add over $20,000 in value.

Low Quality of Life Quantile			
Independent Variable	**Coefficient**	**T**	**Significance**
Local District	4999.31	.352	0.725
NR District (not local)	-27,479.13	-1.584	0.115
Moderate Quality of Life Quantile			
Independent Variable	**Coefficient**	**T**	**Significance**
Local District	2,684.24	.351	0.726
NR District (not local)	-14,486	.-822	0.412
High Quality of Life Quantile			
Independent Variable	**Coefficient**	**T**	**Significance**
Local District	35,561.16	5.662	0.000
NR District (not local)	9,921.17	2.115	0.034

Figure 7: Model 4 Summary Table (full regression results in appendix)

Overall the segmented regression approach brings to light important inequities in policy benefits that the standard hedonic model does not address. While the hedonic model calculates an average benefit, or price increase, across all demographic and price groups, the segmented approach allows us to determine which of these groups is receiving the majority of the benefit, which in this case is high income neighborhoods with a high quality of life.

Discussion

This analysis presents several important implications about historic district designation in Atlanta. The most striking result from which is the difference in value added by locally designated historic districts and National Register historic districts. In all of the regression analyses, local districts added on average between $15,000 and $25,000 to home prices, while National Register districts that are not locally designated continuously came in as having a statistically insignificant effect. Statistical insignificance is typically attributed to two major phenomena: either the effect of the variable is not consistent enough within the sample to attribute the effect to more than chance, or the sample size is too small to detect a consistent positive or negative effect of the variable. The sample used in the analyses includes 3300 records, which is considered an appropriate sample size for a hedonic study of this nature. It should be noted, however, that if the sample were larger and over a longer period of time, statistical significance for all variables would likely increase.

It is not surprising, but definitely reassuring to local policy makers, that the positive effect is so strong at the local level. These results can be attributed to the enforceable policies tied to local designation that are not accompanying National Register districts. Because all of the locally designated districts in Atlanta are also listed on the National Register, these districts benefit from the national recognition of historical significance and protection from federally funded infrastructure projects, as well as the aesthetic protection offered by local regulations and design guidelines. The results of the models suggest that physical value outweighs any perceived negative effect restrictions may have on property value. Property values may decrease more from unkempt properties in a neighborhood more than any

diminution of property rights. While the preservation ordinance is not a catch all, it does attempt to require property owners to improve deteriorating properties within a district.

Upon identifying a district for local designation, Atlanta's Urban Design Commission and its staff of preservationists and planners study the local architectural and cultural history of the area to develop design guidelines that protect and preserve each districts specific historic character. Common regulations that are put in place include restrictions on materials and scale of a house's porches, fencing and roofing. Each district, however, has its own requirements, so it's important in this analysis to consider the nature of each district's regulations to determine if some guidelines are more restrictive than others. For instance, one may presume that because the connection between district designation and home sale price increases is not statistically significant in lower income neighborhoods, that the design guidelines in those local districts may not be as effective as those in districts in high-income neighborhoods. The West End Historic district, which is located in the low-income quantile, has a similar level of restrictiveness as the Inman Park Historic District, which is located in the high-income quantile. Whether or not those guidelines are enforced with the same intensity in both districts is more elusive. Further, increased property value is only one component to be considered when evaluating the effectiveness of the policy on its face. The National Trust for Historic Preservation identifies five goals of local historic preservation ordinances: to provide a municipal policy for the protection of historic properties, to establish an objective and democratic process for designating historic properties, protect the integrity of designated historic properties within a design review requirement, authorize design guidelines for new development within historic districts to

ensure that it is not destructive to the area's character, and finally to stabilize declining neighborhoods and protect and enhance property values. Therefore a district that is not effectively enhancing property values could be successfully meeting one or more of the other four goals of local designation.

Local districts are typically more focused on neighborhood aesthetics and revitalization rather than simply the recognition of historical significance. Each of Atlanta's local districts' design guidelines list a common purpose of the regulations to preserve and enhance the important aesthetic appearance of the district so as to substantially promote public health, safety and welfare; and to ensure that any additions, renovations, or new construction observe the architectural characteristics and maintain a continuing harmony with the historic character of the entire district.

The purpose for listing a district on the National Register is less action-focused in nature. Designation offers property owners a sense of prestige of living in a nationally recognized neighborhood, but without any restrictions on how they or their neighbors must use and maintain their home. The primary reasons for listing on the National Register are the national recognition of historical significance, consideration and protection from federally funded projects, and to gain eligibility for federal grants and tax provisions. National Register listing can also serve as a gateway to preservation and revitalization efforts that leads to eventual local designation and neighborhood-specific design guidelines.
This is often the case in Atlanta, where historic districts are first listed on the National Register and later receive local designation to further boost community revitalization

efforts. Therefore, there is potential that some of the National Register districts that did not have a significant effect on housing prices may be locally designated in the future and implement guidelines that could result in increased housing prices.

Another important result to consider in this analysis is the fact that no statistically significant impact was found in neighborhoods within the low and moderate median income tracts. Only districts within high-income areas are consistently benefiting from the historic preservation policy. In addition to analyzing the rigor of the local restrictions themselves, one can also infer that this is simply a determinant of the market and that higher income buyers place a higher premium on historical significance or preservation of the neighborhood character, and are thus willing to pay up to $20,000 more than a similar house not within the historic district. The quality and quantity of the neighborhoods' preserved historic fabric could also be a contributing factor to this phenomenon. Lower income neighborhoods are likely to have lost more historic fabric to demolition or deterioration than some of the wealthier historic neighborhoods in Atlanta, lessening the sense of place that value increases are often attributed to. It could also be assumed that higher values may be ascribed to different types of historic architecture (i.e. Victorian homes in the Inman Park historic district may generate a higher "historic value premium" than the historic mill housing in some of the lower-income districts), thus leading to the differing levels of significance in the results in low to moderate and high income neighborhoods.

What does this mean for gentrification concerns?

The results of this segmented analysis contrast those found in the quantile regression study completed in Baton Rouge, which found that lower priced houses benefited more from district designation than properties in higher priced neighborhoods (Chaterjee et. al., 2012). While the original intent of this research was to identify neighborhoods and districts experiencing or at risk for gentrification resulting from historic designation, the regression results show that districts in low-income areas are not experiencing housing cost inflation due to these policies alone and thus do not appear to be at risk of displacement. Therefore rather than gentrification concerns, the question becomes one of inequity in policy benefits and if not by home price increase, how are districts in low to moderate income neighborhoods benefitting from historic district designation?

As previously discussed, increase in property value is not the only intended benefit of historic district designation. Property value increases can be thought of as a private benefit, while other resulting benefits like preserved historic character may be applied to the general public. The public benefits of historic districts are more difficult to quantify. Historic districts in lower income areas with a lower overall quality of life may be experiencing more of the public benefits from historic designation, rather than individual property value increases. Historic districts have traditionally been considered a tool for promoting tourism and resulting commercial development; however these benefits also include those primarily benefitting the public, or larger community, such as neighborhood stabilization by limiting change, maintaining neighborhood characteristics and charm, displaying public commitment to a neighborhood and strengthening a community's social

capital, as well as catalyzing revitalization efforts (Noonan, 2007). Local historic districts also encourage an appreciation for the historic architecture and cultural attributes among community residents and the greater Atlanta area. Local districts also create a sense of neighborhood pride among residents in the history and built environment of an areas as well as optimism about the future (Gale, 1991).

The West End historic district, which is associated with Atlanta's civil rights movement, is one of the local historic districts that does not show statistically significant housing price increases but is displaying other community-wide or public benefits. The neighborhood residents' community pride is displayed through events like their "West Fest" neighborhood festival, which celebrates the community's history through walking tours, local concerts and art displays, as well as a fundraising 5k/10k fun run. This is a good example of a community capitalizing on the public benefits of local district designation.

The results of this analysis suggest that Atlanta's local historic districts may be working as intended, to meet the specific preservation needs of each historic neighborhood. While property values are stabilized and enhanced in neighborhoods with higher income residents and existing high quality of life, districts in lower income neighborhoods may be benefitting in other important ways like increasing neighborhood pride and community cohesion. The local districts are successfully preserving the community authenticity by preserving the historic character of the neighborhood in terms of the architectural attributes, while not pricing out long-time residents that also contribute to the neighborhood's history. This realization is encouraging for community planners concerned

with the displacement of residents due to preservation policies. Historic district designation can be positively impactful in lower-income neighborhoods by recognizing the significance of their history and encouraging residents' commitment to the community. This commitment, whether manifested through festivals like the West End district mentioned above or simply better upkeep of properties to begin removing any neighborhood stigma, will strengthen the community's sense of place and work to preserve the rich heritage of the people and architecture alike.

Conclusion

The findings in this study address many concerns property owners of potential historic districts may have on policy implications and contribute new empirical evidence specific to Atlanta. These results align with many previous studies showing that historic designation can add significant value to homes; however this study presents new evidence to show that this value is only consistently realized at the local level of designation accompanied with a historic preservation ordinance and design guidelines. While designation does not definitively add value in all areas of the City, under no circumstances did historic designation at any level decrease value. Properties in higher income neighborhoods with existing high quality of life were found to have consistently greater home price increases from designation than properties within lower income neighborhoods; however, that is not to say that local historic district designation in low- to moderate-income neighborhoods is ineffective.

Overall the findings support the use of local historic district designation and the application of architectural design guidelines as a policy tool to preserve and enhance residential property values in Atlanta. It is important to realize that all of the findings in this study are specific to Atlanta's historic districts and housing market and thus not generalizable to other cities or to the Southeast region as a whole. Results of similar studies presented in the literature review prove that price impacts are an extremely localized effect of historic designation, and thus each city and housing market will differ.

What can planners do?

It is important to remember that historic district designation is just one of many tools available to planners to preserve and revitalize historic urban neighborhoods. The results of this study reinforce the idea that the economic impact of historic district designation is dependent on the existing neighborhood and locational characteristics. It could be argued that the higher-income neighborhoods are experiencing the full potential economic benefits of historic designation because greater public investment and overall number of planning projects accompany the historic preservation policies in these areas. Factors like schools, connectivity, and general public safety, which are controlled for to an extant in this model with NPU variables, are likely impacting price so much that district designation can complement and increase values where these factors are effectively functioning but are unable to counteract them if they are not. Poor schools, roads, and public safety are often major concerns in communities with lower incomes and quality of life. Planners interested in revitalizing historic centers in these areas should recognize this principle need and direct more additional revitalization tools and alternative funding mechanisms to these

neighborhoods in addition to listing the district on the National or local district.

Limitations to this study

Several significant limitations apply to these findings. The sample of home sales is limited to only 3300 transactions between years 2007 to 2013. This sample is robust enough to determine accurate results, though a larger sample over a longer period of time may show more significant price effects. It should also be noted that this study only considers historic district designation, and does not address potential price impacts of individual landmark designation. Another significant limitation of the study is attention to the amount and types of historically significant architecture within the historic districts. The amount of actual preserved historic fabric in high-income historic districts is likely greater than preserved historic fabric in lower-income historic districts, thus having a lesser economic impact.

Suggestions for further research

While the results of this study are significant and useful for policy makers, several opportunities for further analysis exist. These include performing a similar regression to a full set of tax assessor records to determine how much of a premium appraisers apply to historic structures and if that value added differs among socioeconomic neighborhood characteristics as this results of this model did. A more qualitative analysis of all economic impacts of historic designation could also be conducted to accompany the results of this study based on the indicator framework developed by Phillips and Stein (2011). Finally, in order to create a more robust model to determine actual home price increases from designation, further study would involve collecting pre- and post-designation data to

perform a time series regression analysis.

References

Aka, Ebenezer O. Jr. (2011). Gentrification and Socioeconomic Impacts of Neighborhood Integration and Diversification in Atlanta, Georgia. *National Social Science Journal, 35*, 1-14.

Altieri, J. A., Heintzelman, M. D. (2011). Historic Preservation: Preserving Value? *Journal of Real Estate Finance and Economics, 46*, 543-563.

Bond, E. W., Coulson, N. Edward (1989). Externalities, Filtering, and Neighborhood Change. *Journal of Urban Economics*, 25, 231-249.

Botchwey, N., S. Lee, A. Leous, S. Guhathakurta (2014). "Neighborhood Quality of Life and Health in Atlanta" Chapter 28. In Etienne H, B Faga (Eds.), *Planning Atlanta*. APA Press.

Center for Geographic Information Systems (2013). Atlanta's Neighborhood Quality of Life and Health Project. Georgia Institute of Technology

Charterjee, S., Zahirovic-Herbert, V. (2012). Historic Preservation and Residential Property Values: Evidence from Quantile Regression. *Urban Studies, 49*(2), 369-382.

Clark, David. (1997). Historical Preservation Districts and Home Sale Prices: Evidence from the Sacramento Housing Market. *Review of Regional Studies, 27*(1), 29-48.

Coffin, D. (1989). The Impact of Historic Districts on Residential Property Values. *Eastern Economics Journal*, 15(3), 221-228

Coulson, N. Edward, Leichenko, Robin M. (2003). Historic Preservation and Neighborhood Change. *Urban Studies*, 41(8), 1587-1600.

Dewan, Shaila. (2006, March 11, 2006). Gentrification Changing Face of New Atlanta, *New York Times*.

Dooling, E., Mueller, S. (2011). Sustainability and Vulnerability: Integrating Equity into Plans for Central City Redevelopment. *Journal of Urbanism, 4*(3), 201-223.

Ford, D. (1989). The Effect of Historic Designation on Single-Family Home Prices, *Journal of the American Real Estate and Urban Economics Association*, 17, 353-362.

Gale, Dennis E. (1991). The Impacts of Historic Designation. *Journal of the American Planning Association*, 57(3), 325-341.

Gilderbloom, John I., Ambrosius, Joshua D. (2009). Historic Preservation's Impact on Job Creation, Property Values, and Environmental Sustainability. *Journal of Urbanism, 2*(2), 83-101.

Guerrieri, Veronica, Hurst, Erik. (2013). Endogeneous Gentrification and Housing Price Dynamics. *Journal of Public Economics, 45*.

Howell, R. (2008). Throw the 'Bums' Out? A Discussion of the Effects of Historic Preservation Statutes on Low-Income Households Through the Process of Urban Gentrification in Old Neighborhoods
The Journal of Gender, Race and Justice.

Ijla, Akram, Ryberg, Stephanie, Rosentraub, Mark S., Bowen, William. (2011). Historic Designation and Rebuilding of Neighborhoods: New Evidence of the Value of an Old Policy Tool. *Journal of Urbanism, 4*(3).

Krupka, D. S., Noonan D. J. (2011). Making-or Picking-Winners: Evidence of Internal and External Price Effects in Historic Preservation Policies. *American Real Estate and Urban Economics Association, 39*(2), 379-407.

Kurtz, R. S. (2006). Historic Preservation: A Statutory Vehicle for Disparate Agendas. *The Social Science Journal, 43*, 67-83.

Leichenko, R. M., Coulson, N. E., Listokin, D. (2001). Historic Preservation and residential Property Values: An Analysis of Texas Cities. *Urban Studies.* 38(11), 1973-1987.

Lyon, E. (1999). From Landmarks to Community: History of Georgia's Historic Preservation Movement. Georgia Historical Quarterly. 83(1). 77-97.

Lyons, M. (2008) Gentrification and Social Mixing: Towards an Inclusive Urban

Renaissance. *Urban Studies.* 45(12). 2449-2470.

Maher, Timothy, Haas, Ain, Levine, Betty, Liell, John (1985) Whose Neighborhood? The Role of Established Residents in Historic Preservation Areas. Urban Affairs Quarterly, 21(2) 267-281.

McKinnish, Terra, Walsh, Randall, White, T. Kirk (2009) Who Gentrifies low-income neighborhoods? *Journal of Urban Economics*, 67, 180-193.

Millerick, Cecily A., Schaeffer, Peter V. (1991) The Impact of Historic District Designation on Property Values: An Empirical Study. *Economic Development Quarterly* 5(4), 301-312.

Morgan, J. D. (1997). *Economic Benefits of Historic Preservation in Georgia, A Study of Three Communities: Athens, Rome, and Tifton*. Georgia.

Noonan, D. S. (2007). Finding an Impact of Preservation Policies: Price Effects of Historic Preservation Landmarks on Attached Homes in Chicago, 1990-1999. *Economic Development Quarterly, 21*(1), 17-33.

Phillips, R. G., Stein, J. M, (2011). An Indicator Framework for Linking Historic Preservation and Community Economic Development. *Social Indicators Research, 113*(1), 1-15.

Reid, Lesley W., Adelman, Robert M., (2003). The Double-edged Sword of Gentrification in Atlanta. Georgia State University, *Footnotes*, 3 (4).

Rypkema, Donavon (2005) *The Economics of Historic Preservation: A Community Leader's Guide.* Washington, DC: National Trust for Historic Preservation.

Schneider, Timothy. (2001) From Monuments to Urban Renewal: How Different Philosophies of Historic Preservation Impact the Poor, *Georgetown Journal on Poverty Law and Policy*, 8 257-281

Thompson, Eric, Rosenbaum, David (2009) Property values on the plains: the impact of historic preservation. *Annals on Regional Science.* 45.

Tyler, N., Ligibe, T., & Tyler, I. (2009). *Historic Preservation: An Introduction to its History, Principles, and Practice.*. (2nd Ed. ed.). New York, NY: W.W. Norton and Company.

Wiles, C. (2007). Consideration of Historical Authenticity in Heritage Tourism Planning and Development. *Northeastern Recreation Research Symposium.*

Appendix

Table 1: List of Designated Historic Districts in City of Atlanta

Historic District	National Register	Locally Designated	Neighborhood Plan
Adair Park Historic District	X	X	
Ansley Park Historic District	X		
Atkins Park Historic District	X	X	
Atlanta University Center	X		
Baltimore Block Historic District	X	X	
Brookwood Hills Historic District	X	X	
Cabbagetown Historic District	X	X	
Candler Park Historic District	X		
Castleberry Hill Historic District	X	X	X
Collier Heights Historic District	X		
Druid Hills Historic District	X	X	
Fairlie Poplar Historic District	X		
Grant Park Historic District	X	X	
Hotel Row	X	X	
Howell Station Historic District	X		
Inman Park Historic District	X	X	
Kirkwood Historic District	X		
Lakewood Heights Historic District	X		
Martin Luther King Jr. Historic District	X	X	
Midtown Historic District	X		
Oakland City Historic District	X	X	
Peachtree Highlands Historic District	X		
Pittsburgh Historic District	X		X
Renoyldstown Historic District	X		X
Sweet Auburn Historic District	X		
Techwood Homes Historic District	X		
Virginia Highlands Historic District	X		
Washington Park Historic District	X	X	
West End Historic District	X	X	
Whittier Mill Historic District	X	X	

Model 1 Regression Results

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	-23392.848	91981.240		-.254	.799
	ln_Hist_District	13110.660	3705.331	.049	3.538	.000
	Income	1.222	.056	.284	21.672	.000
	Bedrooms	12303.879	2247.069	.076	5.476	.000
	Bathrooms	32625.330	2868.490	.160	11.374	.000
	Half_bath	30452.296	3553.596	.116	8.569	.000
	sold2007	176481.003	79833.574	.555	2.211	.027
	sold2008	168629.661	79858.003	.461	2.112	.035
	sold2009	144073.911	79865.848	.362	1.804	.071
	sold2010	136071.944	79855.170	.345	1.704	.088
	sold2011	130272.191	79833.803	.343	1.632	.103
	sold2012	148251.721	79816.674	.408	1.857	.063
	sold2013	163644.758	79842.309	.433	2.050	.040
	npuB	36102.430	9566.711	.067	3.774	.000
	npuC	50856.567	9710.196	.091	5.237	.000
	npuD	-36559.472	8796.016	-.090	-4.156	.000
	npuE	71019.094	10176.714	.124	6.979	.000
	npuF	64646.022	8232.395	.218	7.853	.000
	npuG	-81148.353	12534.492	-.097	-6.474	.000
	npuI	-157512.087	14241.194	-.153	-11.060	.000
	npuJ	-151375.614	21460.058	-.086	-7.054	.000
	npuK	-94009.304	40541.494	-.026	-2.319	.020
	npuL	-192184.920	79956.620	-.027	-2.404	.016
	npuM	-81702.947	9956.611	-.145	-8.206	.000
	npuN	-50132.211	9191.520	-.127	-5.454	.000
	npuO	-138923.648	29165.779	-.054	-4.763	.000
	npuR	-152430.963	27687.728	-.063	-5.505	.000
	npuS	-145033.499	14817.057	-.129	-9.788	.000
	npuT	-174185.417	10801.459	-.272	-16.126	.000
	npuV	-154901.813	11455.087	-.212	-13.523	.000
	npuW	-63660.448	8962.419	-.152	-7.103	.000
	npuX	-150221.984	20090.508	-.090	-7.477	.000
	npuY	-207482.625	18654.073	-.137	-11.123	.000
	built1860and70s	42291.172	72603.356	.008	.582	.560
	built1880and90s	25958.633	49674.220	.015	.523	.601

1	built1900and10s	61828.134	46601.021	.087	1.327	.185
	built1920sand30s	11670.367	46029.503	.044	.254	.800
	built1940and50s	-19000.941	46107.833	-.065	-.412	.680
	built1960and70s	-37902.637	46724.090	-.053	-.811	.417
	built1980and90s	2567.528	46222.996	.006	.056	.956
	built2000s	5561.929	46133.128	.018	.121	.904

a. Dependent Variable: Sales_Pric

Model 2 Regression Results

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	-26592.260	92389.040		-.288	.773
	Local_District	25619.427	5233.933	.065	4.895	.000
	NR_District_Not_Loc	6604.283	4320.475	.022	1.529	.126
	Bedrooms	12936.636	2257.400	.080	5.731	.000
	Bathrooms	32845.794	2884.147	.160	11.388	.000
	Half_bath	31787.288	3560.699	.121	8.927	.000
	Income	1.205	.057	.279	21.201	.000
	npuB	37990.918	9621.924	.070	3.948	.000
	npuC	51372.679	9753.411	.092	5.267	.000
	npuD	-35796.418	8835.668	-.088	-4.051	.000
	npuE	76378.778	10371.879	.132	7.364	.000
	npuF	66686.908	8289.221	.223	8.045	.000
	npuG	-81627.424	12594.164	-.097	-6.481	.000
	npuI	-155502.871	14317.807	-.150	-10.861	.000
	npuJ	-151851.014	21558.657	-.086	-7.044	.000
	npuK	-90955.403	40731.876	-.025	-2.233	.026
	npuL	-193044.308	80314.430	-.027	-2.404	.016
	npuM	-87696.911	10173.024	-.154	-8.621	.000
	npuN	-49563.551	9232.502	-.125	-5.368	.000
	npuO	-136686.781	29301.697	-.053	-4.665	.000
	npuR	-152207.648	27811.331	-.063	-5.473	.000
	npuS	-150649.556	14997.169	-.133	-10.045	.000
	npuT	-181392.487	11095.295	-.282	-16.349	.000
	npuV	-158478.545	11587.493	-.216	-13.677	.000
	npuW	-65975.422	9042.098	-.157	-7.296	.000
	npuX	-150365.449	20182.840	-.090	-7.450	.000
	npuY	-205854.214	18738.481	-.135	-10.986	.000
	built1860and70s	237919.659	65357.241	.057	3.640	.000
	built1880and90s	25661.831	49895.270	.015	.514	.607
	built1900and10s	61694.280	46808.391	.086	1.318	.188
	built1920sand30s	13261.102	46236.748	.049	.287	.774
	built1940and50s	-17703.518	46313.618	-.060	-.382	.702
	built1960and70s	-36757.300	46933.744	-.051	-.783	.434
	built1980and90s	3016.592	46430.200	.007	.065	.948
	built2000s	6112.280	46341.244	.019	.132	.895
	sold2007	176206.707	80188.855	.551	2.197	.028
	sold2008	168809.310	80214.041	.459	2.104	.035
	sold2009	144204.060	80221.445	.360	1.798	.072
	sold2010	137321.666	80210.783	.347	1.712	.087
	sold2011	129983.080	80189.060	.340	1.621	.105
	sold2012	148280.268	80172.036	.405	1.850	.064
	sold2013	164076.570	80198.132	.432	2.046	.041

Model 3 (income quantile) Regression Results

Low Income Quantile:

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	-48145.538	67878.124		-.709	.479
	Local_District	13372.007	9820.826	.058	1.362	.174
	NR_District_Not_Loc	-2928.144	13746.891	-.010	-.213	.831
	Bedrooms	17263.067	5043.052	.164	3.423	.001
	Bathrooms	13959.224	6652.714	.099	2.098	.037
	Half_bath	32115.977	8183.066	.174	3.925	.000
	Income	2.571	.778	.125	3.307	.001
	sold2007	139280.798	64207.487	.742	2.169	.031
	sold2008	140045.945	64187.135	.619	2.182	.030
	sold2009	110306.855	64531.879	.387	1.709	.088
	sold2010	123748.803	64640.590	.403	1.914	.056
	sold2011	99368.244	64510.460	.359	1.540	.124
	sold2012	107456.071	64151.652	.384	1.675	.095
	sold2013	132099.289	64440.213	.481	2.050	.041
	npuB	111930.305	25394.727	.193	4.408	.000
	npuC	121278.778	34814.271	.133	3.484	.001
	npuD	18776.349	19981.501	.055	.940	.348
	npuE	179203.049	37884.183	.220	4.730	.000
	npuF	49798.103	22545.687	.101	2.209	.028
	npuG	-4184.669	20181.393	-.014	-.207	.836
	npuI	-66312.545	22747.747	-.164	-2.915	.004
	npuJ	-95642.325	24536.894	-.201	-3.898	.000
	npuL	-135295.800	64865.100	-.075	-2.086	.038
	npuM	-37671.248	19202.495	-.140	-1.962	.050
	npuN	-16121.278	25285.570	-.034	-.638	.524
	npuR	-86942.295	47166.757	-.068	-1.843	.066
	npuS	-89174.025	21213.535	-.239	-4.204	.000
	npuT	-103088.964	18854.452	-.413	-5.468	.000
	npuV	-102268.064	18534.164	-.428	-5.518	.000
	npuW	-36498.772	19505.995	-.113	-1.871	.062
	npuX	-98076.069	29745.441	-.142	-3.297	.001
	npuY	-132652.413	23231.775	-.304	-5.710	.000
	built1880and90s	-87276.822	63542.568	-.048	-1.374	.170
	built1900and10s	30292.130	20629.719	.057	1.468	.143
	built1940and50s	-6277.457	11450.561	-.028	-.548	.584
	built1960and70s	-43624.839	19660.552	-.097	-2.219	.027
	built1980and90s	25104.810	14444.107	.067	1.738	.083
	built2000s	-4441.739	10162.083	-.025	-.437	.662

Moderate Income Quantile:

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	79491.224	60143.729		1.322	.187
	Local_District	14911.144	9112.977	.049	1.636	.102
	NR_District_Not_Loc	-19501.931	8438.933	-.077	-2.311	.021
	Bedrooms	7677.196	3623.071	.058	2.119	.034
	Bathrooms	31463.760	4785.027	.180	6.575	.000
	Half_bath	35151.538	6011.627	.156	5.847	.000
	Income	3.210	.466	.186	6.893	.000
	sold2008	-15659.465	8248.532	-.050	-1.898	.058
	sold2009	-25590.894	8661.372	-.077	-2.955	.003
	sold2010	-57533.844	8884.884	-.168	-6.475	.000
	sold2011	-56161.326	8337.123	-.181	-6.736	.000
	sold2012	-23995.816	8759.763	-.073	-2.739	.006
	sold2013	-17737.283	8462.404	-.056	-2.096	.036
	npuB	59218.641	16984.239	.121	3.487	.001
	npuC	56457.205	17932.093	.101	3.148	.002
	npuD	-14762.341	15277.477	-.045	-.966	.334
	npuE	64342.781	21031.985	.096	3.059	.002
	npuF	50907.249	14585.639	.181	3.490	.001
	npuG	-95477.623	22753.184	-.120	-4.196	.000
	npuI	-142250.655	22032.106	-.196	-6.457	.000
	npuK	-57381.176	45581.753	-.029	-1.259	.208
	npuM	-86931.487	17544.986	-.196	-4.955	.000
	npuN	-67704.570	16472.877	-.255	-4.110	.000
	npuO	-131618.498	31845.806	-.101	-4.133	.000
	npuR	-137811.343	33909.702	-.098	-4.064	.000
	npuS	-152303.875	24160.298	-.171	-6.304	.000
	npuT	-163036.863	18770.267	-.365	-8.686	.000
	npuV	-143662.130	22949.634	-.176	-6.260	.000
	npuW	-67399.497	15882.080	-.191	-4.244	.000
	npuX	-143070.023	27040.674	-.137	-5.291	.000
	npuY	-243079.059	36672.683	-.158	-6.628	.000
	built1860and70s	41626.208	92196.024	.012	.451	.652
	built1880and90s	65632.443	62729.399	.043	1.046	.296
	built1900and10s	28548.032	55209.085	.040	.517	.605
	built1920sand30s	12241.623	53144.967	.054	.230	.818
	built1940and50s	-35164.135	53514.970	-.146	-.657	.511
	built1960and70s	-27173.551	55281.110	-.043	-.492	.623
	built1980and90s	-13266.268	53834.662	-.035	-.246	.805
	built2000s	12040.326	53446.910	.045	.225	.822

High Income Quantile:

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	211192.483	78812.042		2.680	.007
	Local_District	20569.440	7619.006	.059	2.700	.007
	NR_District_Not_Loc	21165.565	5628.314	.091	3.761	.000
	Bedrooms	16758.748	3063.118	.127	5.471	.000
	Bathrooms	32863.771	3811.351	.202	8.623	.000
	Half_bath	18558.825	4743.469	.091	3.913	.000
	Income	.414	.095	.088	4.363	.000
	sold2007	31391.146	6635.428	.114	4.731	.000
	sold2008	27582.144	6865.417	.093	4.018	.000
	sold2009	-3689.459	7143.186	-.012	-.517	.606
	sold2010	-9588.200	6855.646	-.032	-1.399	.162
	sold2011	-12745.347	6901.516	-.042	-1.847	.065
	sold2013	17311.189	6827.388	.058	2.536	.011
	npuB	5236.981	12226.822	.013	.428	.668
	npuC	34132.807	12129.786	.090	2.814	.005
	npuD	-68066.722	11712.848	-.216	-5.811	.000
	npuE	44193.066	12618.922	.116	3.502	.000
	npuF	55977.385	10672.777	.259	5.245	.000
	npuG	-137375.919	22498.808	-.129	-6.106	.000
	npuI	-244386.169	34039.442	-.140	-7.179	.000
	npuJ	-157952.851	56533.149	-.052	-2.794	.005
	npuK	-181609.527	78454.306	-.043	-2.315	.021
	npuM	-83398.415	14681.107	-.147	-5.681	.000
	npuN	-13746.348	12325.586	-.038	-1.115	.265
	npuO	-40297.895	78529.640	-.009	-.513	.608
	npuR	-238384.536	78347.080	-.056	-3.043	.002
	npuS	-180307.864	55914.635	-.060	-3.225	.001
	npuT	-235944.661	28293.934	-.166	-8.339	.000
	npuV	-184564.562	22792.966	-.167	-8.097	.000
	npuW	-82969.653	11804.191	-.255	-7.029	.000
	npuX	-179303.355	78403.768	-.042	-2.287	.022
	built1860and70s	64918.305	110470.965	.015	.588	.557
	built1880and90s	-27869.281	81677.516	-.023	-.341	.733
	built1900and10s	42133.952	78972.157	.081	.534	.594
	built1920sand30s	-5838.688	78453.178	-.027	-.074	.941
	built1940and50s	-20818.805	78407.502	-.089	-.266	.791
	built1960and70s	-51571.602	78896.114	-.092	-.654	.513
	built1980and90s	-10670.209	78424.900	-.031	-.136	.892
	built2000s	2451.929	78476.245	.009	.031	.975

Model 4: Regression Results (QOL Quantiles)

Low Quality of Life Quantile:

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	67918.603	20333.331		3.340	.001
	Local_District	4999.305	14203.409	.027	.352	.725
	NR_District_Not_Loc	-27479.135	17349.555	-.139	-1.584	.115
	Bedrooms	13892.482	5726.250	.234	2.426	.016
	Bathrooms	-722.694	9166.489	-.008	-.079	.937
	Half_bath	7114.202	10118.899	.053	.703	.483
	Income	1.126	.189	.383	5.958	.000
	sold2008	15441.458	10795.111	.104	1.430	.154
	sold2009	-27222.560	14321.629	-.135	-1.901	.059
	sold2010	-11853.181	17743.183	-.045	-.668	.505
	sold2011	-39138.509	20450.890	-.129	-1.914	.057
	sold2012	-17669.260	20495.755	-.058	-.862	.390
	sold2013	-21322.459	16555.203	-.092	-1.288	.200
	npuI	8775.608	14117.625	.060	.622	.535
	npuJ	5334.040	17872.925	.024	.298	.766
	npuK	75990.876	29898.850	.169	2.542	.012
	npuL	-52807.945	55458.949	-.059	-.952	.342
	npuX	-2376.633	15616.351	-.011	-.152	.879
	built1900and10s	10505.858	40371.653	.017	.260	.795
	built1940and50s	-9470.227	17014.090	-.044	-.557	.579
	built1960and70s	-19221.685	20515.565	-.095	-.937	.350
	built1980and90s	-9590.876	20740.941	-.032	-.462	.644
	built2000s	15274.932	12623.327	.119	1.210	.228

a. Dependent Variable: Sales_Pric

Moderate Quality of Life Quantile:

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	148893.176	37474.563		3.973	.000
	Local_District	2684.824	7643.266	.019	.351	.726
	NR_District_Not_Loc	-14486.090	17626.149	-.040	-.822	.412
	Bedrooms	-4204.137	3960.319	-.054	-1.062	.289
	Bathrooms	11686.581	5364.197	.116	2.179	.030
	Half_bath	12430.254	6613.608	.093	1.879	.061
	Income	.611	.157	.173	3.886	.000
	sold2008	10539.372	8831.131	.054	1.193	.234
	sold2009	-17417.358	10713.920	-.073	-1.626	.105
	sold2010	-17141.343	10955.519	-.072	-1.565	.119
	sold2011	-31902.430	9687.085	-.152	-3.293	.001
	sold2012	-13314.017	12365.989	-.048	-1.077	.283
	sold2013	-14173.186	10112.343	-.065	-1.402	.162
	npuG	62628.801	36407.574	.420	1.720	.087
	npuO	5230.608	39842.308	.013	.131	.896
	npuR	-54207.255	37138.486	-.143	-1.460	.146
	npuS	-38101.854	35369.508	-.204	-1.077	.282
	npuT	-35519.523	35230.685	-.270	-1.008	.314
	npuY	-67713.167	36850.092	-.278	-1.838	.067
	built1900and10s	18673.831	19949.750	.040	.936	.350
	built1940and50s	28165.883	10934.471	.141	2.576	.011
	built1960and70s	1108.165	25381.751	.002	.044	.965
	built1980and90s	-5866.015	15778.901	-.017	-.372	.710
	built2000s	-2413.427	8943.991	-.018	-.270	.787

a. Dependent Variable: Sales_Pric

High Quality of Life Quantile:

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	184236.402	58902.094		3.128	.002
	Local_District	35561.165	6280.862	.094	5.662	.000
	NR_District_Not_Loc	9921.175	4690.144	.038	2.115	.034
	Bedrooms	16442.486	2646.331	.107	6.213	.000
	Bathrooms	34461.787	3327.758	.183	10.356	.000
	Half_bath	30637.418	4164.664	.129	7.357	.000
	Income	1.190	.064	.287	18.728	.000
	sold2008	-13046.843	5852.868	-.039	-2.229	.026
	sold2009	-35900.517	6109.871	-.102	-5.876	.000
	sold2010	-45945.654	6045.933	-.133	-7.599	.000
	sold2011	-53181.356	5964.427	-.157	-8.916	.000
	sold2012	-33558.924	5750.004	-.106	-5.836	.000
	sold2013	-14910.065	5904.280	-.045	-2.525	.012
	npuB	-27394.296	6818.842	-.062	-4.017	.000
	npuC	-13186.665	7168.001	-.029	-1.840	.066
	npuD	-103015.644	6100.424	-.308	-16.887	.000
	npuE	6593.139	7467.843	.014	.883	.377
	npuM	-160056.465	7994.337	-.345	-20.021	.000
	npuN	-120587.080	6117.369	-.368	-19.712	.000
	npuW	-135507.203	6140.713	-.392	-22.067	.000
	built1860and70s	58101.921	82188.766	.014	.707	.480
	built1880and90s	45119.903	61371.768	.032	.735	.462
	built1900and10s	86083.576	58767.633	.142	1.465	.143
	built1920sand30s	36160.375	58270.775	.151	.621	.535
	built1940and50s	3672.659	58414.013	.014	.063	.950