Historic Designation and Residential Property Values

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The State of California enacted the Mills Act in 1972. This act allows local municipalities the option of setting up a historic designation program. The main feature of the program is to allow the owners of historic buildings a reduction in their property taxes in return for an agreement to not alter the exterior façade of the designated building. This paper uses hedonic regression analysis to estimate the impact of the historic designation on the value of single-family residences in the City of San Diego. The results suggest that the designation creates a 16 percent increase in housing value. This is higher than the capitalization of the property tax savings would suggest, implying market value in the historic designation itself. The Mills Act represents an innovative approach to historic structure management and may provide guidance to governments elsewhere in the U.S. as well as internationally when designing historic preservation programs.

Keywords

Historic designation; housing values; hedonic model

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1. Introduction

In 1972 the State of California passed a law that since has become known as the Mills Act,[1] named after the author of the legislation, California State senator James R. Mills. Before becoming a state senator, James Mills had made his name in San Diego as a historian, author and preservationist. The primary purpose of the act was to provide incentives for property owners to preserve and rehabilitate historically significant structures. The Mills Act allows for cities and counties to create programs designed to aid in the historic preservation of structures. The program allows for a reduction in property taxes on historically designated properties in return for a commitment by the owners of the property to maintain the property without significantly altering its appearance.

The details of the Mills Act require a participating local government to enter into a contract with the owner of the historic building. This contract has several key features. The contract is valid for ten years, and is automatically renewed annually, unless notice to cancel is given by either party, in which case, the contract will lapse at the end of the ten years. Under the terms of the contract, the property owner agrees to maintain and rehabilitate, if necessary, the external façade of the structure. In return, the property tax for the structure is reduced.

In general, property taxes in California are calculated at approximately one percent of the tax basis of a property. Upon the sale of the property (or significant alteration), the tax basis is adjusted to full market value; however, Proposition 13 limits the annual increase in property taxes to a maximum of two percent in a year when the property is not sold. Under the Mills Act, the tax basis for the property is based either on the income produced by the building for rented structures, or the income producing potential for owner-occupied structures. This income stream is then converted into a value for the structure based on a capitalization rate set by the county assessor's office. This imputed value then becomes the tax basis for the purposes of property tax assessment. The City of San Diego examined the savings to homeowners due to Mills Act contracts in 2005. For each property covered by Mills Act contracts, the City estimated the difference between what the property owners were paying, and what they would have had to pay without the benefit of the Mills Act contract. The property tax savings from entering into a Mills Act contract for a historic house ranged from 40 to 80 percent, with an average savings of 49 percent.[2]

Although there are few exact numbers, a survey in 1995 found that 39 cities were writing Mills Act contracts with a total of 119 statewide. Currently there are an estimated 89 cities and 1,662 Mills Act contracts statewide according to the California Office of Historic Preservation. The number of contracts provided is the

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[1] The actual legislation is contained in the California Revenue and Taxation Code, Article 1.9, Sections 439 – 439.4 and the California Government Code, Article 12, Sections 50280 – 50290.

[2] There is an extensive literature on how environmental issues (such as air quality, water quality and undesirable land uses) on housing values. For a survey of the literature, see Boyle and Kiel (2001).

lower bound of the actual number of contracts as there is no enforcement to insure that all contracts are recorded with the State of California. The City of San Diego has by far the largest number of Mills Act contracts with more than 650 structures covered. The City of Los Angeles is second with around 200 contracts. The City of Anaheim is third with approximately 125 contracts.

The City of San Diego's experience is probably similar to that of most other cities and counties operating under the Mills Act. The City of San Diego did not start writing Mills Act contracts until 1995, though the Historical Resources Board has been assigning historic designations since 1967. Figure 1 shows the relationship between the number of Mills Act contracts written each year since 1995 as well as the median housing price for San Diego. Not surprisingly, the City of San Diego experienced a large upswing in the number of Mills Act contracts in the late 1990's as housing prices started to soar. As with many cities, the City of San Diego has been experiencing financial difficulties since 2002. This has led to a backlog of over 100 structures waiting to be evaluated for historic significance.

Figure 1
Median Housing Price - City of San Diego
Number of New Mills Act Contracts - City off San Diego
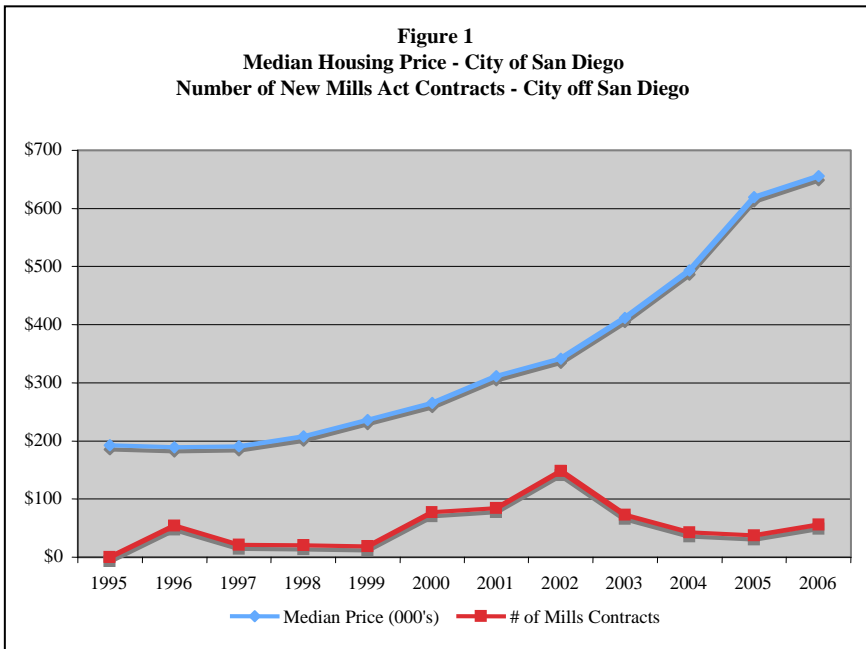
This paper investigates the impact of historic designation on single-family housing values by estimating the price differential between houses covered by Mills Act contracts and those with comparable attributes but without the designation. The rest of the paper is organized as follows. The next section reviews the literature on historic designation and its effect on property values. The following two sections

discuss the methodology and data used in the analysis. Empirical results are then presented, followed the conclusion.

2. Literature Review

California's approach to historic preservation through tax benefits to specific properties through the Mills Act is very unusual. In other jurisdictions, the typical scenario is for a local historic resources board to identify a geographic area as a historic district. All buildings within that district then have the same level of protection, benefits and constraints. The issue then becomes whether the creation of a historic district with positive externalities arising from a consistent historic "look" outweigh the costs associated with limitations placed on remodeling and redevelopment of housing stock within the district. The previous literature on the value of historic designation has focused for the most part on analyzing this type of historic designation.

Asabere et al. (1989) provide one of the first studies of the effect of architecture and historic zoning on housing value. Looking at the town of Newburyport in northeastern Massachusetts, the authors estimate the impact of both type of architecture and historic zoning district on the value of 520 housing units over a three-year period. Using hedonic regression analysis, Asabere et al. identify eight possible functional forms for housing value. Their results suggest that architectural style does have a positive and significant effect on housing values, with buyers willing to pay premiums for older homes built in the colonial, federal, garrison and Victorian styles. However, location in the historic district does not seem to convey any added value to the housing price in and of itself. The results suggest that historic district location is positive and significant in only one of their eight specifications.

The effect of historic designation on property values is examined by Ford (1989) using data from Baltimore, Maryland. The City of Baltimore has approached historic designation by creating historic districts. A total of fifteen such districts were created between 1964 and 1985. By examining housing prices in both 1980 and 1985, Ford tests two major hypotheses. She finds that the prices of houses in areas that will eventually be designated historic districts are not significantly different from those in non-historic districts. However, her results suggest that houses within designated historic districts do command a premium. Furthermore, Ford tests whether the appreciation in housing prices were greater the longer the property had been in a historic district. Interestingly, Ford finds no evidence to dispute the hypothesis that the value of historic designation is capitalized into the price of the structure upon designation.

Coffin (1989) examines the issue of historic district valuation using Aurora and Elgin, Illinois: two western suburban cities of Chicago. Coffin's sample includes 120 sales of homes in Elgin, of which 47 are in the historic district, and 243 units in Aurora, 62 of which are in the historic district. Coffin asserts that location in the

historic district increases housing price by 6–7%. However, his results are at the extreme edge of typically accepted statistical significance. For Aurora, he modified his designation of historic significance to identify the historic district homes that are located in low-income Census tracts. This surely increased the significance of the historic district variable as historic designation in a low-income neighborhood sends an additional signal about housing stock quality.

Asabere and Huffman (1991) take an innovative approach by examining the effect that historic designation has on undeveloped land. Using data from Philadelphia, the authors identify 100 transactions involving vacant land sales over the years 1987 to 1989. Their use of Philadelphia as a case study is significant as Philadelphia has limited its ability to designate historic sites solely to specific structures. Therefore, all historic districts within Philadelphia are federally created. Under the federal framework, any development of vacant land need only meet local requirements. This implies that there are no additional constraints on development of vacant land in these historic districts. Not surprisingly, this lack of constraints leads to a much higher valuation of the land in these districts. The authors estimate that vacant land for residential purposes is valued 131% higher in historic districts. They also find no significant difference in the valuation of nonresidential properties.

Asabere and Huffman (1994) extend their work in Philadelphia to estimate the effect of historic district designation to developed residential property. The authors identify a sample of 120 houses that are sold over the period of 1986 to 1990. The authors find that houses sold in federally designated historic districts command a premium of approximately 26%. This benefit is not dependent on any investment tax credits that are typically associated with structures in federally designated historic district.

Clark and Herrin (1997) examine the effect of historic preservation districts in the city of Sacramento, California over the years 1990–1994. Sacramento has identified 20 historic preservation districts. Over the study period the authors identify 683 housing sales, of which 58 occurred in 6 of the districts. Using hedonic regression analysis, the authors find that houses within the districts sell for up to 17% more. From this, Clark and Herrin argue that the restrictions placed on housing redevelopment and rehabilitation in these districts is not particularly onerous.

Abilene, Texas serves as the case study for Coulson and Leichenko (2001). Abilene is somewhat unusual in that historic designation is conferred on individual properties rather than historic districts. The authors use this distinction to estimate the value of historic designation on a particular property. They find that historic designation has a positive and significant impact on the value of a property. They estimate that historic designation brings about an increase in house value of approximately 17%. The authors attempt to disentangle the tax effects and whether the property in listed on a national registry with little success. In addition, the authors provide evidence that suggests that there is a positive externality associated with historic designation. The results suggest that for each additional historically designated house within the census tract, the value of a house in that census tract increases by 0.14%.

One possible drawback from the majority of the previously cited studies is the reliance on valuing historic designation within a particular market. Leichenko et al. (2001) use data from nine Texas cities to try to rectify this shortcoming. The cities in their sample follow one of three historic designation strategies. Some cities identify individual historic structures, other cities use only historic districts, and one city uses both approaches. The authors find that the value of historic designation increases property values from between 5 and 20 percent. The results were mixed regarding the valuation of national historic designation, state and local designation. In two cities, national historic designation significantly increases property values, while in another city the effect was not statistically significant.

Two studies in Turkey indicate a growing international recognition of the importance of alternatives to state ownership of historically significant structures. Demet and Cengiz (2000) examine the options available to preserve and restore parts of the community of Bursa-Cumalikizik, Turkey. The authors recognize that the traditional approach of state directed rehabilitation and preservation is unlikely to succeed without active participation of the population within the district. Likewise, Akansel and Minez (2006) examine the same issues in the Kaleici region of Edirne, Turkey. Although the authors conclude that "funds providing financial support to the owners of these houses in the settlement should be set up in order to protect these houses" (p. 10), they do not propose a system to achieve that goal.

3. Methodology

This study uses the hedonic price model developed by Rosen (1974) to measure the effect of tax savings from the Mills Act historic designation on single-family home values. This methodology is well developed and accepted in real estate and housing economics research. For example, it has been used to assess the impact of numerous factors on housing values, such as environmental issues,[3] school quality,[4] and special land uses.[5] In the hedonic model, housing is considered a bundle of attributes, including site, structural, quality, location and market characteristics. The number and type of attributes embodied in a house distinguish it from other properties and determine its value.

Because housing attributes are not traded individually, the value of an attribute can not be directly observed. In order to estimate the value of each housing characteristic, multiple regression analysis is utilized. Suppose there are i site and

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[3] There is an extensive literature on how environmental issues (such as air quality, water quality and undesirable land uses) on housing values. For a survey of the literature, see Boyle and Kiel (2001).

[4] For example, see Mitchell (2000), and Clark and Herrin (2000).

[5] For example, Colwell, Dehring and Lash (2000) investigate the impact of group homes on neighborhood property values; Carroll, Clauretie and Jensen (1996) study the effects of neighborhood churches on residential property values; and Irwin (2002) examines the influence of open space on residential housing values.

structural attributes, j location characteristics, and k market factors in the hedonic model, the semi-log regression equation can be written as:

$$\ln(P) = \alpha + \sum_{1}^{i}\beta_i S_i + \sum_{1}^{j}\lambda_j L_j + \sum_{1}^{k}\mu_k M_k + \varepsilon \qquad (1)$$

where P is the sales price of a house, β, λ and μ are coefficients, and ε is an error term. The coefficient of an attribute is interpreted as the percentage change in property value given one unit increase in the attribute. In this study, a dummy variable is used to identify houses that are covered by Mills Act contracts. The coefficient of this variable represents the effect of historic designation on the value of a house.

4. Data

Data were collected on sales of single-family detached housing in zip codes 92103 and 92104 in San Diego, California from January 1, 2000 through December 31, 2006. The two zip codes were selected for several reasons. They contain some of San Diego's oldest neighborhoods and therefore have a relatively large proportion of historically designated homes. In fact, nearly 40% of the structures that are currently covered by Mills Act contracts in the City of San Diego are located in these two zip codes. The housing stock in the neighborhoods has sufficient variation in physical attributes to allow a meaningful hedonic analysis. Additionally, as these zip codes are contiguous, many of the neighborhood characteristics such as school quality, proximity to downtown and beaches, and crime rates do not vary greatly.

During the seven-year period, 2,045 transactions of single-family residences with valid property information are retrieved from DataQuick's PropertyPro CDs.[6] To ensure that the data reflects the housing market equilibrium and to prevent coding errors and non-arm's-length transactions from unduly influencing the analysis, a set of data cleansing criteria are utilized.[7] Approximately 4.5% of the observations are excluded, resulting in a final dataset with 1,953 valid observations. Of these houses, 25 had received historic designation by the City of San Diego and the owners had signed a Mills Act contract.[8] Table 1 presents the descriptive statistics for the

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[6] Transactions with missing data (such as sales price, lot size, square footage of living area, number of bathrooms, number of bedrooms, and year built) are excluded.

[7] An observation is removed if one of the following criteria is met: 1) the year of sale is earlier than the year built, 2) the lot size is greater than an acre or less than 500 square feet, and 3) the number of bedrooms is greater than 5. The price per square foot (p/sf) is also taken into account to prevent coding errors and exclude non-arm's-length transactions. The average p/sf in the two zip codes during the study period is $432 with a standard deviation of $134. Observations with p/sf three standard deviations higher ($834) or lower ($30) than the average are also removed.

[8] The 25 properties covered by the Mills Act contracts represent 1.28% of the sample, while historically designated single-family houses in the two zip codes (261 properties) represent 1.24% of the stock of single-family housing.

dataset, with Panel A showing the historically designated houses and Panel B the rest of the sample.

Table 1   Descriptive Statistics

Panel A Historically Designated Houses (n=25)

Variable	Mean	Std. Dev.	Min.	Max.
Sales Price (000's)	833.2	365.3	333.0	1,850
No. of Bedrooms	2.87	0.74	2.00	4.00
No. of Bathrooms	1.70	0.64	1.00	3.50
Living Area (ft^2)	1,721.3	587.7	870	3,169
SQ FT of Lot	7,043.1	4,446.1	4,500	24,829
# Garage Spaces	1.14	0.65	0.00	2.00
Avail. of Pool	0.00	0.00	0.00	0.00
Age of Property	68.70	18.91	5.00	93.00

Panel B Non-historically designated houses (n=1,928)

Variable	Mean	Std. Dev.	Min.	Max.
Sales Price (000's)	569.8	303.9	80.0	2,500
No. of Bedrooms	2.59	0.78	1.00	5.00
No. of Bathrooms	1.60	0.76	1.00	5.00
Living Area (ft^2)	1,367.1	655.1	405	5,790
SQ FT of Lot	5,467.0	3,176.2	649	37,461
# Garage Spaces	1.22	0.72	0.00	5.00
Avail. Pool	0.06	0.24	0.00	1.00
Age of Property	67.01	18.98	0.00	102.00

Somewhat surprisingly, the historically designated houses are not that much older than the other houses, with an average age of 68.7, compared to 67.0 for the rest of the sample. Overall, the historically designated houses are slightly larger (in terms of square footage, number of bedrooms/bathrooms, and lot size) and sell on average for $263,000 more than those without historic designation.

5. Model and Results

The hedonic model (Equation 1) is estimated with the dataset to determine the implicit price of each housing attribute. In this study, site and structural attributes include the number of bedrooms, the number of bathrooms, the square footage of living area, size of lot, the number of garage spaces, availability of a swimming pool, and the age of the property. To control for neighborhood effects within the two zip codes, a set of 24 dummy variables are employed to represent the census tract in which a property is located. As the San Diego housing market experienced remarkable appreciation during the study period, a group of dummy variables that indicate the quarter in which a transaction occurred is also included to take into account the housing market trend. Additionally, a dummy variable is used to identify houses with historic designation. The value of the variable is one for houses that are covered by Mills Act contracts, and zero otherwise. The coefficient of this variable indicates the impact of historic designation on the value of a house, after other housing attributes have been controlled for.

Table 2 presents the estimation results of two hedonic models. [9] Model 1 uses the log of sales price as the dependent variable. The model has a strong explanatory power with an adjusted R^2 of 83.2%. Most site and structural variables carry the expected sign and are statistically significant. For example, adding 100 square feet of living space increases the housing value by approximately 2.7%, and each additional bedroom adds 3.2% value to the house. The coefficient of property age is positive, suggesting that buyers in this market are willing to pay more for older houses; however, the difference is not statistically insignificant.

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[9]   Due to the large number of variables, parameter estimates of the census tract and quarter dummy variables are not presented in the table, but are available from the authors.

Table 2 Estimation Results of Hedonic Model (n = 1,953)

Variable	Model 1: Semi-log Form	
	Coefficients	t value
Intercept	11.9277	77.92
No. of Bedrooms	0.0317	3.85
No. of Bathrooms	0.0181	1.75
SQ FT of Living Area (10^{-3})	0.2724	18.95
SQ FT of Lot (10^{-3})	0.0076	4.41
No. of Garage Spaces	0.0340	4.86
Availability of Pool	0.0851	4.27
Age of Property (10^{-3})	0.3214	1.11
Historic Designation	0.1484	3.44
Adjusted R^2	0.8322	

Variable	Model 2: Linear Form	
	Coefficients	t value
Intercept	154,431	1.49
No. of Bedrooms	567.70	0.10
No. of Bathrooms	26,669	3.80
SQ FT of Living Area (10^{-3})	220.12	22.64
SQ FT of Lot (10^{-3})	5.88	5.02
No. of Garage Spaces	11,036	2.33
Availability of Pool	82,538	6.12
Age of Property (10^{-3})	102.71	0.53
Historic Designation	120,985	4.15
Adjusted R^2	0.7995	

The variable of interest is the dummy variable for Mills Act historic designation. The variable has a coefficient of 0.1484 and a t-value of 3.44. This result reveals

that historic designation and the corresponding Mills Act increase the value of a single-family home by approximately 16.0%. [10]

A number of additional tests are performed to assess the robustness of the empirical results. The variance inflation factor (VIF) is used to ensure that the estimation results are not affected by multicollinearity. Several different model specifications (for example, log and quadratic forms for property age and lot size) are also considered. The magnitude and significance level of the Mills Act variable remains virtually unchanged. Additionally, a linear form regression (where the sales price is the dependent variable) is estimated. The coefficient of the Mills Act variable is again positive and highly significant (see Model 2 in Table 2). These tests confirm that with physical attributes, housing market trends, and neighborhood effects all controlled for, the historic designation significantly increases the value of a property.

6. Conclusion

The State of California enacted the Mills Act in 1972. This program provides owners of historic buildings a reduction in property taxes in return for an agreement to not alter the exterior façade of the designated building. This paper studies the impact of such historic designation on the value of single-family homes. Using hedonic regression analysis and housing transactions in San Diego between 2000 and 2006, the study estimates the price differential between houses with Mills Act historic designation and comparable houses without the designation. The empirical findings suggest that the historic designation results in a 16 percent increase in housing value.

Theory suggests that the value of any tax benefits should be capitalized into the price of the home. The degree to which this benefit is not fully capitalized represents a cost to the homeowner for agreeing not to alter the building; on the other hand, a price differential exceeding the capitalized tax benefit implies value in the historic designation itself. In San Diego the tax savings on houses that are covered by Mills Act contracts range from 40 to 80 percent, with an average of 49 percent. Given a one-percent property tax rate, the price differential identified in the empirical analysis is likely to be higher than the capitalization of property tax savings. Further research with more detailed data is necessary to investigate the sources of the additional value.

The importance of historic preservation has received growing international recognition and many countries have developed programs to provide tax incentives. Traditional approaches have consisted primarily of either public ownership of the structures or the creation of historic districts. California's approach to historic preservation through the Mills Act provides an alternative model. Communities

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[10] For a dummy variable, the percentage effect is equal to (*Exp(c)-1*), where *c* is the parameter estimate of the dummy variable (see Halvorsen and Palmquist, 1980).

gain by making sure historically significant structures are preserved while the owners of those structures are compensated with tax savings and higher property values. The level of participation in the Mills Act program indicates that it has been successful in encouraging the owners of historically significant structures to preserve and maintain their buildings. The Mills Act can therefore serve as a template of how historic preservation may be achieved elsewhere in the United States as well as internationally.

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