Confederate Memorials and the Housing Market

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Abstract

We find that Black, Democrat, and college-educated homeowners are less likely to live on Confederate memorial streets. Moreover, houses on Confederate streets sell for 3% less. The Confederate effect does not spillover to adjacent houses, consistent with direct name rather than neighborhood effects. The price effect increases following attention-grabbing events that highlight racial underpinnings of Confederate symbols. Removing Confederate school names is associated with price increases for local houses. Aversion to houses on Confederate streets also holds in experimental settings where house attributes are otherwise identical. The findings suggest that social norms can have important consequences for real estate markets.

JEL: G1, G51, H7, R21, R28, R31

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1. Introduction

Public debate regarding US Civil War Confederate memorials has intensified in recent years. The discussion centers on whether such memorials reflect underlying racism, particularly against Black Americans, or more innocuous Southern pride. While early Confederate memorials were typically located in cemeteries to honor the dead, more celebratory images such as Confederate generals on horseback began to be placed in public spaces during the Jim Crow era of the early 1900s, with another round of memorials occurring during the Civil Rights era of the 1950s-1960s.[1] While statues in public spaces can carry strong symbolic meaning, Confederate memorials may also have direct economic effects on asset markets. In this article, we study the housing market implications of Confederate memorials by examining houses located on streets that honor the Confederacy.

Survey evidence indicates that attitudes towards Confederate memorials vary substantially with demographic attributes. In particular, Confederate memorials are viewed more negatively by Black Americans, Democrats, and individuals with higher levels of education. Our first analysis examines whether these demographic groups are less likely to own houses on residential streets that contain words that are widely associated with the Confederacy. We collect demographic information for every homeowner in the state of Florida, and we contrast the homeowners of 1,943 properties located on Confederate streets with the homeowners of matched control properties that are in the same census block group as the focal Confederate property. We find that houses on Confederate streets are 31% less likely to be owned by Black residents, 20% less likely to be owned by registered Democrats, and 15% less likely to be owned by individuals with a college

[1] The Confederate Mound at Oak Woods Cemetery in Chicago, dedicated in 1895, is a prominent example of early funereal monuments. The installation of the Robert E. Lee statue in Charlottesville Virginia in 1924 typifies the second phase of memorials, and Stone Mountain Park in Georgia, purchased by the state in 1958 and house to a colossal mountainside carving of Confederate generals, exemplifies the third phase.

education. The demographic evidence is robust to controlling for age, household income, house characteristics, and a propensity score matching approach.

There are several potential explanations for why certain demographic groups are more averse to living on Confederate memorial streets. First, homeowners may be put off by the street name itself, either because they dislike what it symbolizes, or because they are uncomfortable with others' negative views of the name (*street effect*). Moreover, some individuals may be averse to living in close proximity to residents who would choose to live on a Confederate memorial street, in which case they may avoid the entire neighborhood (*neighbor effect*).[2] Alternatively, it is possible that houses on Confederate streets may have unobservable amenities that happen to be valued differently by certain demographic groups (*amenity effect*).[3] For example, Mummolo and Nall (2017) and Martin and Webster (2020) find that Democrats prefer to live in areas that have greater population density.

In order to better understand the underlying mechanisms driving the residential sorting evidence, we also examine homeowner preferences for *Confederate Adjacent* homes, defined as the subset of homes in the same census block group that are in closest proximity to Confederate streets. We find no evidence that Confederate-street-averse demographic groups are less likely to live in *Confederate Adjacent* homes. The difference in homeowner preferences for *Confederate* and *Confederate Adjacent* homes is consistent with direct aversion to Confederate street names and inconsistent with the neighbor effect. In addition, to the extent that amenities tend to be more

[2] Consistent with homophily, McCartney, Orellana-Li, and Zhang (2022) show that households are more likely to sell their homes when their neighbors have differing political beliefs, and Bayer et al., (2022) find evidence that Black and white homeowners are significantly more likely to move in response to receiving a neighbor of a different race.
[3] For example, past research explores the housing market implications of school investments, foreclosures and tax lien sales, freeways, and fracking (e.g., Black, 1999; Cellini, Ferreira, and Rothstein, 2010; Anenberg and Kung, 2014; LaPoint, 2023; Brinkman and Lin, 2022; and Gibbons Heblich, and Timmins, 2021).

similar for very proximate homes, the results are also inconsistent with differences in unobserved amenities driving the results.

The residential sorting evidence suggests that aversion to Confederate memorials is strong enough to influence home purchases, but the findings are silent on the broader pricing implications. For example, if the sorting evidence is attributable to heightened demand from white residents, Republicans, and individuals with lower levels of education, then Confederate house values may not differ or even transact at a premium. On the other hand, if the sorting results primarily reflect reduced demand from populations averse to Confederate memorials, then houses on Confederate streets may trade at significant discounts.

We analyze the pricing implications of Confederate memorial streets by gathering sale prices and property characteristics from 2001-2020 using data collected from local government offices by ATTOM, a private data provider. Our primary sample is comprised of 5,895 home sales located on 1,446 Confederate memorial streets in 35 different states. Our identification approach involves comparing Confederate house sales with nearby non-Confederate houses that sold during the same calendar quarter. Within a census-tract quarter, we find that Confederate properties are similar to non-Confederate properties along observable house attributes with the exception that Confederate houses tend to be older than control properties. Accordingly, in our main specification, we compare Confederate and non-Confederate transactions that took place in the same calendar quarter, within the same census tract, and within the same age quintile, while also directly controlling for the number of bedrooms and bathrooms, house age, building size, and lot size.

We find that houses on Confederate streets transact at prices that are 2.93% lower than similar non-Confederate properties. The mean house value during our sample is $240K, which

translates into a dollar Confederate discount of roughly $7,000. The effect is robust to a number of alternative specifications, including finer geographic partitions (e.g., replacing census tract fixed effects with block-group fixed effects) or interacting census tract × quarter fixed effects with other house attributes (e.g., indicators for the number of bedrooms or bathrooms, building size or lot size quintiles, or a propensity score match).

Consistent with the residential sorting analysis, we find a pricing effect for Confederate properties but not for *Confederate Adjacent* properties. This finding provides further support for a direct Confederate street name effect rather than a neighborhood effect. In addition, using listing information collected from Zillow, we document that Confederate properties experience other undesirable housing outcomes. In particular, Confederate homes are 9% more likely to have a slow sale, defined as being in the largest quintile of sell duration, and they are 10% more likely to be in the top quintile of sale discounts relative to listing price.

If the negative association between Confederate street names and house values is driven by reduced demand, we would expect the relation to be stronger in areas where aversion to Confederate memorials is likely to be stronger. At the county level, we categorize properties into two groups based on racial, political, and educational demographic information. Consistent with the sorting results, we observe that the Confederate street house value discount is more pronounced in regions with a higher proportion of Black residents, Democratic voters, and individuals with higher education levels. We also find some evidence that Confederate street discounts are smaller in the 11 former Confederate states, and we observe a positive (albeit insignificant) pricing effect for Confederate properties in the five former Confederate states with the most Confederate memorial statues.

Although public concern about Confederate memorials has been generally evident throughout our sample period,[4] events that raise awareness of the racial underpinnings of Confederate symbols may amplify the Confederate discounts. We measure variation in attention to Confederate symbols using Google search intensity for the term "Confederate Flag." We observe three noticeable spikes that correspond to the church shooting in Charleston, South Carolina in June 2015; the Unite the Right rally in Charlottesville, Virginia in August 2017; and the widespread Black Lives Matter protests against police brutality and racism that reached a peak in June 2020. Using a staggered difference-in-difference (DID) approach, we analyze the Confederate house street effect in the four quarters before and after the events. We find that Confederate street houses sell at an incremental -4.22% discount in the year following the event and an -8.13% discount in the quarter following the event.

Changing perceptions of Confederate memorials have led to a number of name changes in recent years. While few individual streets have been renamed to date, using data from the Southern Poverty Law Center, we are able to identify 23 elementary, middle, and high schools with names that were related to the Confederacy that subsequently changed names during our sample period and that have relevant house information available. In particular, we gather data from Zillow for school assignments for each house in the zip codes of name change schools. Using a staggered difference-in-difference empirical design, we find that houses located in Confederate school districts experience a 5.2% price increase over the following three years after the removal of the Confederate federate school names relative to otherwise similar houses located in the same zip code. While the districts with name changes are not exogenous, and name changes may be more

[4] For example, in 2001 the Georgia state legislature acted to remove the Confederate battle emblem from the state flag, after adding the emblem to the flag in 1956.

likely to occur where concern about Confederate symbols is high, the evidence supports the view that aversion to Confederate memorials can influence house values.

Although our analysis controls for available house characteristics, concerns may remain that unobservable attributes could influence the results. We therefore also consider an experimental setting that allows us to examine potential homebuyers' choices in an environment where houses are truly identical except for street name. In particular, we conduct an experiment in which 1000 participants are asked to choose between pairs of houses with pictures and street names provided. In this setting, we are able to vary house-name assignments across participants to isolate the effect of a Confederate street name on house choice. Consistent with the archival evidence, we find that respondents are significantly less likely to select a home on a Confederate street on average, and the effect is stronger among the participants who are likely to view Confederate memorials more negatively.

Our findings add to the research on the role of race in housing markets. A large literature explores discrimination in past and present-day mortgage markets, with researchers examining the effects of race on mortgage originations, approvals, interest rates, and refinancing.[5] Our work studies the effect of racial signaling in a contemporary context by exploring the housing market implications of Confederate memorials, which many people strongly associate with historical discrimination. The evidence that Black residents are less likely to live on Confederate streets and that Confederate memorial houses sell for less than other nearby properties suggests that symbols of historical discrimination can continue to have important housing market implications. The

[5] Past work that examines historical discriminatory housing policies such as racial covenants or biased lending practices includes Sood and Ehrman-Solberg (2023), Aaronson et al. (2021), and Fishback et al., (2022). Research on present-day mortgage markets includes Munnell et al, (1996), Ghent, Hernández-Murillo, and Owyang (2014), Park, Sarkar, and Vats (2022), Giacoletti, Heimer, and Yu (2022), Ambrose, Conklin, and Lopez (2021), McCartney and Shah (2022), Bartlett et al., (2022), Frame et al., (2022), and Bhutta and Hizmo (2021).

findings are consistent with recent work documenting other consequences of Confederate memorials for Black residents including worse labor market outcomes (Williams, 2021) and hate crimes (Rahnama, 2022).

Our analysis also contributes to the literature that focuses on how political views influence real estate investment decisions and prices. McCartney, Orellana-Li, and Zhang (2021) find that households are more likely to move when their neighbors are affiliated with the opposite political party. Other work emphasizes partisan views of climate change. For example, Bernstein et al. (2021) find that Democrats are significantly less likely to own houses exposed to sea level rise relative to Republicans. Similarly, Bernstein, Gustafson, and Lewis (2019) and Baldauf, Garlappi, and Yannelis (2020) find that houses exposed to sea level risk sell for significantly larger discounts in areas where homeowners are more likely to believe in climate change. Our evidence that discounts for Confederate streets are concentrated in areas with more left-leaning voters reinforces the views that differences in political ideology can have a sizeable impact on real estate prices.

More broadly, our study extends the literature that examines how personal ideologies influence financial decision making in a variety of settings. Hong and Kacperczyk (2009) show that "sin" stocks (e.g., alcohol, tobacco, and gaming companies) have lower relative valuations, consistent with reduced social preferences for these industries, and Hong and Kostovetsky (2012) document that democratic-leaning mutual fund managers are less likely to invest in companies that are deemed socially irresponsible. Homanen (2018) finds reduced deposit growth at banks that financed the Dakota Access Pipeline, specifically in socially conscious counties. Kempf and Tsoutsoura (2021) find evidence that credit analysts' political perceptions influence corporate credit ratings, and Duchin et al., (2023) find evidence that political attitudes influence corporate merger outcomes. Barber, Morse, and Yasuda (2021) estimate that venture capital investors are

willing to forgo three percentage points in expected IRR when investing in funds whose objective is to generate positive social and environmental impact.[6] We adopt a similar framework to examine house buyers' views of Confederate memorial street names. Our findings on the effects of Confederate memorials in the context of the housing market support the view that social norms can have important consequences for asset markets.

2. Residential Sorting on Confederate Properties

Views on Confederate memorials vary substantially with demographic attributes. For example, a 2021 PRRI survey of American views towards Confederate Monument Reform reveals striking differences across demographic groups. In particular, 82% of Black Americans support monument reform compared to only 13% who oppose reform, while the corresponding estimates for white Americans is much more split (47% support versus 52% against).[7] Similarly, support for Confederate monument reform is far stronger among Democrats (82% support reform) relative to Republicans (22%), and among college graduates (64%) relative to those who never attended college (44%). In this section, we proxy for views of the Confederacy using demographic information, and we analyze the effects of Confederate memorials on home purchase decisions.

2.1 Residential Sorting into Confederate Memorial Homes

We collect detailed voter registration data for all residents in Florida from L2 data. L2 provides voter data separately by state, and we focus on Florida for two reasons. First, it contains the largest number of Confederate properties in our sample, and second, Florida is one of the few

[6] Other work that presents evidence consistent with social values influencing investment decisions includes Bollen (2007), Renneboog, Ter Horst, and Zhang (2008), Riedl and Smeets (2017), Hartzmark and Sussman (2019), Baker et al. (2022), Bauer, Ruof, and Smeets (2021), Bonnefon et al. (2022), and Giglio, et al., (2023).

[7] In the interest of brevity, we combine *support* and *lean support* into one category and *oppose* and *lean oppose* into a second category. More detailed survey results can be found here: https://www.prri.org/research/creating-more-inclusive-public-spaces-structural-racism-confederate-memorials-and-building-for-the-future/.

states that collect self-reported racial information when residents register to vote. In particular, the Florida voter registration form includes the following five categories: American Indian/Alaskan Native, Asian/Pacific Islander, non-Hispanic Black, Hispanic, and non-Hispanic white. In addition to race and ethnicity, the data includes information on house addresses, political affiliation, education level, homeowner age, and income.[8] The data provides a single snapshot of homeownership as of the end of 2020.

We identify addresses that honor the Confederacy (*Confederate streets*) by searching for street names that contain words associated with the Confederacy. Specifically, we consider addresses that contain variants of the word "Confederate," as well as "Dixie" which is the Confederacy's unofficial national anthem and a term commonly used to describe the 11 Southern states that seceded to form the Confederacy. We also consider addresses containing "Jefferson Davis," who was elected President of the Confederate States, "Robert E. Lee," who acted as the commander of the Confederate States Army, or "Thomas 'Stonewall' Jackson," who was another prominent Confederate military leader.[9] We acknowledge that our list of Confederate memorial streets is not exhaustive, for example, we do not track streets named after less well-known confederate military leaders. A meaningful fraction of homeowners must be aware that a street functions as a Confederate memorial for it to influence decision making in an observable way, and we therefore focus on the most salient Confederate names.[10] All other properties are classified as non-Confederate.

[8] Information on race is missing for roughly 5% of the sample, and college information is missing for 22%. To include as many Confederate street properties as possible, we set missing values of all independent variables to zero and include a corresponding missing variable indicator (see, e.g., Himmelberg, Hubbard, and Palia, 1999).

[9] More specifically, we search for street that contains: "confederate," "confed," "dixie," "dixi," "dixies," "dixieln," "dixielane," "dixieway," "robert e lee," "r e lee," "jeff davis," "jefferson davis," "stonewall jackson," and "stonewall jack," irrespective of its letter case.

[10] For example, the large mountainside carving at Stone Mountain Park in Georgia is comprised of Davis, Lee, and Jackson on horseback.

Confederate properties and non-Confederate properties may differ on several important dimensions, and these differences could drive any observed residual sorting. To alleviate this concern, in our analysis we contrast Confederate properties to non-Confederate properties that are similar with respect to location, and we include controls for other demographic attributes and house characteristics. Specifically, we first match Confederate properties to non-Confederate properties in the same census block group, which corresponds to roughly one-quarter the size of a census tract. The resulting sample includes 1,943 Confederate properties and 111,147 control properties across 248 census block groups.[11] For each property, we collect information on the homeowner's age and income from L2. We also merge the L2 data with assessor data from ATTOM data solutions (ATTOM), which collects housing data from local government recorder and assessor offices. We collect the following property characteristics from ATTOM: the size of the house in square feet (*House Size*), the size of the lot in square feet (*Lot Size)*, the number of bedrooms (*Bedrooms*), the number of bathrooms (*Bathrooms)*, and the number of years since the house was first built (*Age*). Descriptive statistics for the merged sample are provided in Table IA1 of the internet appendix.

To test whether certain groups are less likely to own Confederate properties, we estimate the following cross-sectional regression:

$$Confederate_i = \alpha + \beta_1 Var_i + \beta_2 Control_i + FE_i + \varepsilon_i. \quad (1)$$

The dependent variable, *Confederate*, is an indicator that is equal to one if the house is on a Confederate street and zero otherwise. *Var* is equal to either: *Race* (*Black*), an indicator equal to one if all the owners of the house identify as Black, *Registered Democrat*, an indicator equal to one if the house owners are registered Democrats, and *Education* (*Some College*), an indicator

[11] Table IA.1 provides additional summary statistics for the L2 sample.

equal to one if all the house owners have at least some college education. We also consider a composite measure, *Demographic Score,* which is the mean of *Race, Democrat,* and *Education. Controls* include indicators for the specific number of bedrooms and bathrooms (up to five), and the natural logs of *Lot Size*, *House Size*, *Home Age, Owner Age,* and *Household Income.* FE denotes census block group fixed effects. We cluster standard errors at the block-group level.

Specifications 1-3 report estimates prior to including controls. We find that Black residents are 0.53 percentage points less likely to own a property on a Confederate street relative to other houses of similar value in the same census block group, which reflects a roughly 31% decline relative to the mean value of *Confederate* (1.72%).[12] In Specifications 2 and 3, we consider *Education (Some College)* and *Registered Democrat* as the primary independent variables. The estimates indicate that both college-educated individuals and Democrats are significantly less likely to own houses on Confederate streets. In Specification 4 we include the three demographic indicator variables together. The estimates on the three variables are all negative and at least marginally significant ($p < 0.10$). Specification 5 also confirms that the composite *Demographic Score* is highly significant.

Specification 6 adds the full set of controls. The estimate on *Demographic Score* falls slightly (from -0.91% to -0.79%) but the estimate remains highly significant (t=-3.74). We also note that the controls tend to be statistically insignificant, which is consistent with houses in the same census block group being similar on observable attributes. There are, however, slight differences with respect to lot size and the number of bathrooms. As a robustness check, we also consider a propensity-score matched sample. Specifically, we re-estimate Equation (6) after

[12] We also consider indicators for two other racial minorities: Hispanic and Other (which includes Asians, Pacific Islanders, Native Americans, etc.). In untabulated analysis, we find economically small and statistically insignificant estimates for both groups.

excluding *Demographic Score*. We define the predicted value from this regression as the propensity score, and we convert the propensity score to percentiles. We then repeat Specification 6 after replacing census block group fixed effects with census block group × propensity score percentile fixed effects. After including the additional fixed effects, the coefficient on the *Demographic Score* increases in magnitude to -0.87% and is more statistically significant (t=4.13). Moreover, the estimates on all the controls are economically small and statistically insignificant, consistent with the propensity score model matching well on observable characteristics.[13]

Overall, the evidence from Table 1 indicates that demographic groups who tend to view Confederate memorials more negatively are less likely to live on Confederate properties. These findings suggest that disparate views regarding Confederate memorials are strong enough to influence a major financial decision.

2.2 Residential Sorting into Confederate Memorial Homes – Underlying Mechanisms

There are several underlying explanations for why certain demographic groups may be less likely to live on Confederate streets. First, potential homeowners may have a direct aversion to the street name (*Street Name Effect*). For example, individuals may be averse to memorializing the Confederacy and wish to avoid frequent reminders of that period in history. In addition, homeowners may also be uncomfortable with the prospect of friends' or peers' negative views of the Confederacy and wish to avoid any negative connotations associated with living on a Confederate memorial street.

[13] We also repeat Specification (7) after replacing *Demographic Score* with each of the three components separately. The estimates on Black, Democrat, and College are: -0.46 (t=-2.06), -0.28 (t=-2.35), and -0.34 (t=-3.46), respectively.

A second, broader potential explanation is that homeowners may be reluctant to live near anyone who would choose to live on a Confederate memorial property (*Neighbor Effect*).[14] Consistent with homophily, McCartney, Orellana-Li, and Zhang (2021) show that households are more likely to sell their homes when their neighbors have differing political beliefs, and Bayer et al., (2022) find evidence that Black and white homeowners are significantly more likely to move in response to receiving a neighbor of a different race. Third, it is possible that the sorting results are driven by unobserved amenities that are assessed differently by different demographics (*Amenity Effect*). For example, different demographics could assign different values to nearby parks or the ability to walk to restaurants.

Importantly, the *Street*, *Neighbor*, and *Amenity* explanations offer contrasting predictions regarding residential sorting on properties that are *Confederate Adjacent*, which we define as the closest nearby non-Confederate homes. If the *Street Effect* is the sole driver of the sorting results, then we would not expect to observe sorting for *Confederate Adjacent* properties. On the other hand, if the *Neighbor Effect* is an important contributing factor, then we would expect the sorting results to spillover to adjacent properties. In addition, to the extent that more proximate properties have more similar amenities, the *Amenity Effect* may also spillover to adjacent properties.

We examine whether residential sorting extends to adjacent properties by estimating the following regression:

$$Demographic_i = \alpha + \beta_1 Confed_i + \beta_2 Confed\ Adj_i + Controls + FE_i + \varepsilon_i. \quad (2)$$

The dependent variable, *Demographic*, is either *Race* (*Black), Registered Democrat, Education* (*Some College),* or *Demographic Score*. *Confederate* is defined as in Table 1, and *Confederate*

[14] Our *Street Name Effect* and *Neighbor Effect* mechanisms are similar to the "own-lot effect" and "external effect" channels discussed in a land-use regulation context in Turner, Haughwout, and van der Klauw (2014).

Adjacent is an indicator that is equal to one if the property is located within *x* miles of the closest Confederate property, where we set *x* equal to values ranging from 0.05 miles to 0.50 miles.

Based on the average Confederate property lot size, the 0.05 mile cutoff corresponds to houses that are typically either one or two properties over from the closest Confederate property. Thus, this definition of *Confederate Adjacent* maps closely to the *Nearby Neighbor* measure employed by McCartney, Orellana-Li, and Zhang (2021).[15] The controls and fixed effects are the same as in Specification 7 of Table 1.

Panels B-D of Table 2 report the results for *Race*, *Education*, *and Democrat*, respectively, and Panel A reports the results for the composite measure, *Demographic Score*. Since the results do not differ dramatically across the three individual measures, we focus on *Demographic Score*, which offers the benefits of more precise coefficient estimates. In Specification 1, we define *Confederate Adjacent* properties as those properties located within 0.05 miles of a Confederate property (n = 1,003 *Confederate Adjacent* properties). We find that the coefficient on *Confederate Adjacent*, while negative, is economically small (less than one-third of the estimated effect on *Confederate*) and statistically insignificant. Further, the difference between *Confederate* and *Confederate Adjacent* is statistically significant. We find qualitatively similar results if we define *Confederate Adjacent* properties as properties located within 0.10, 0.25, or 0.50 miles of a Confederate property. The significant difference in the estimates between *Confederate* and *Confederate Adjacent* properties is consistent with a *Street Effect* being a significant contributor

[15] While we expect the magnitudes of spillover consequences to be stronger for more adjacent properties, prior works suggest proximity to certain externalities, including recent foreclosures or brownfield sites, can affect the prices of properties located up to 0.25 miles away (Campbell, Giglio, and Pathak, 2011; Linn, 2013). Further, because the sample of control properties increases substantially as the distance increases (see Panel C of Table IA.1), imposing less stringent distance requirement may increase the power of the tests.

of the observed residential sorting. In contrast, the insignificant estimates on *Confederate Adjacent* homes are inconsistent with the *Neighbor Effect* or the *Amenity Effect*.[16]

3. Transaction Data and Descriptive Statistics

The previous section suggests that the differing views on Confederate memorials are strong enough to influence where homeowners choose to live, but the findings do not speak to the broader pricing implications. To explore the potential pricing implications of Confederate streets, we purchase transaction-level data from ATTOM Data solutions (ATTOM). ATTOM collects housing data from local government recorder and assessor offices. The recorder data provides the sale price of the property (*Price*), its address, transaction date, and transaction deed type (e.g., foreclosure sales, or arms-length deals). The assessor data also provides many property-specific attributes.

We limit the sample to transactions for which assessor data contains non-missing information for the following five property characteristics: the size of the house in square feet (*House Size*), the size of the lot in square feet (*Lot Size)*, the number of bedrooms (*Bedrooms*), the number of bathrooms (*Bathrooms)*, and the number of years since the house was first built (*Age*). Following Graham and Makridis (2023), we restrict the sample to arm's-length, non-foreclosed sales of residential properties with sales prices of at least $10,000. Finally, since ATTOM's coverage prior to 2000 is very sparse, we limit the sample to transactions that occur between 2001-2020.

[16] The benefit of implementing Equation 2 is that it allows for straightforward testing of statistical differences for *Confederate* and *Confederate Adjacent* homes. For completeness, in Table IA.2 in the Internet Appendix we also consider a specification similar to Equation 1 in which we replace *Confederate* with *Confederate Adjacent*. Consistent with the evidence in Table 2, we do not observe a significant sorting effect for any of the demographic measures.

As in the previous section, we classify a street as "Confederate" if it contains variants of "Confederate," "Dixie," "Jefferson Davis," "Robert E. Lee," or "Thomas 'Stonewall' Jackson." For our pricing analysis, we require that both *Confederate* and control properties to have sold within the same calendar quarter. This allows for better matching but reduces the sample considerably relative to the residential sorting analysis, and as a result we select control properties from the census track rather than census block for our main analysis (we also consider census block for robustness). We construct the sample of census tract-quarter groups with at least one Confederate and one non-Confederate house transaction.

Panel A of Table 3 provides summary statistics. The sample contains 5,895 Confederate property transactions for 4,052 unique Confederate properties. The Confederate sample includes 1,446 different streets, 574 census tracts, 254 different counties, and 35 different states. The control sample includes 80,304 transactions across 32,657 streets. Figure 1 displays the distribution of Confederate house transactions across states. Unsurprisingly, the highest concentration of Confederate transactions occurs in the Southeast. However, there are a considerable number of Confederate streets in other parts of the county including left-leaning states in the West and the Northeast (e.g., California and Massachusetts) as well as more conservative areas in the Midwest (e.g., Nebraska and Indiana). We note that some states, such as Texas, do not mandate public disclosure of house transactions (colored gray in the map), and therefore the ATTOM sample contains few observations from these states.[17]

Panel B of Table 3 reports the distribution of the housing attributes. The median house in the sample sells for $180,000, has 3 bedrooms and 2 bathrooms, and is 25 years old. The means of the continuous variables: (*Price*, *House Size*, *Lot Size*, and *Age*) are larger than the medians, and

[17] Excluding non-disclosure states from the sample has little effect on the findings.

we use natural logs going forward to reduce the effects of outliers on the analysis. Panel C reports the correlation matrix for the variables. Intuitively, *Price* is positively correlated with *House Size*, *Lot Size*, *Bedrooms*, and *Bathrooms*, and negatively correlated with *Age*. We also see that *Confederate* exhibits meaningful correlations with several house attributes. In particular, Confederate houses tend to be smaller yet are positioned on larger lots.

We observe a particularly strong negative correlation between *Confederate* and *Age.* To better understand the difference in home age, in Figure IA1 in the Internet Appendix we present evidence regarding when Confederate and control streets were first named, as measured by the oldest house on the street in our sample. We find that 11% of Confederate streets were named prior to 1920, compared to only 4% of control streets. Moreover, a large fraction of Confederate streets were named during the 1940s and 50s, which coincides with the increase in Confederate memorials around the 1954 Supreme Court decision mandating desegregation. The popularity of Confederate Streets exhibits a clear drop beginning in the 1980s, and the decline has accelerated over the past 20 years.

4. Identification Approach

A challenge to assessing the impact of Confederate street names on house prices is determining the counterfactual price that would have occurred if the property were located on a non-Confederate street. Our approach is to compare Confederate properties to non-Confederate properties that are sold nearby (within the same census tract) and at roughly the same time (within the same calendar quarter) after controlling for differences in observable house characteristics.

Specifically, we estimate the following hedonic regressions:

$$Log(Price)_{it} = \alpha + \beta Confederate_{it} + \gamma X_{it} + FE + \varepsilon_{it}, \quad (3)$$

where the dependent variable, $Log(Price)_{it}$, is the natural log of property *i's* sales price in quarter *t*. The independent variable of interest is *Confederate*$_{it}$, which is an indicator equal to one if the house is located on a Confederate street and zero otherwise. X_{it} is a vector of house attributes that includes indicators for the specific number of bedrooms and bathrooms (up to five), and the natural logs of *Lot Size*, *House Size*, and *Age*.[18] We consider different sets of fixed effects (FE) in the model specifications. For example, to benchmark Confederate properties to non-Confederate properties that sold in nearby locations at roughly the same time, we include census tract × quarter fixed effects.

An additional concern is that the value of house characteristics might vary across census tract and time. For example, it is possible that older houses may sell at a premium in some areas and a discount in others. We address this concern by partitioning the house attribute into quintiles (relative to other houses that sold in the same census tract and quarter) and including the triple interaction to create census tract × quarter × house attribute quintile fixed effects. The number of control transactions in each census tract × quarter is relatively modest (12 for the median tract-quarter), which limits us to interacting census tract × quarter with one house attribute at a time. In our main analysis we report the results for *Age* since this variable exhibits the strongest correlation with *Confederate* (see Panel C of Table 3). We report the results for other attributes in robustness analysis.

Our identifying assumption is that after controlling for the observable house attributes and fixed effects, any observable or unobservable characteristics that influence house prices will be similar between Confederate and non-Confederate properties except for street name. Although we cannot examine whether Confederate and non-Confederate properties differ with respect to

[18] In untabulated analysis, we find similar results if we replace Log (*Lot Size*), Log (*House Size*), and Log (*Age*) with 100 separate indicators each for lot size, house size, and age percentiles.

unobservable variables, we can explore whether the identifying assumption holds for the subset of observable variables. Specifically, we estimate Equation (1) after replacing $Log(Price)_{it}$ with a house attribute (e.g., *Lot Size*) and removing that attribute as a control variable. The coefficient on *Confederate* thus captures whether there is a significant difference between Confederate and non-Confederate properties with respect to the attribute after including all the remaining control variables and fixed effects.

Table 4 reports the results of this analysis for each of the five house attributes used as control variables. Columns 1 and 2 report the differences (and *t*-stats) between Confederate and non-Confederate properties prior to including any fixed effects or controls, which is analogous to the simple correlations reported in Panel C of Table 3. Columns 3 and 4 report the differences after including the full set of controls and tract × quarter fixed effects, and Columns 5 and 6 report the differences after including the full set of controls and tract × quarter × age quintile fixed effects. The first row reports the results for log (*House Size*). We see that prior to including controls, Confederate houses are 7.2% smaller than non-Confederate houses. However, this difference falls to 1.44% after including controls and tract × quarter fixed effects and 0.45% after including controls and tract × quarter × age quintile fixed effects. In other words, although there are differences in house size between Confederate and non-Confederate properties, even if we could not directly control for *House Size*, our remaining controls and fixed effects effectively eliminate these differences. We observe similar patterns for Log (*Lot Size*), *Bedrooms*, and *Bathrooms*.

Consistent with Panel C of Table 3, the largest difference between Confederate and Non-Confederate properties is age, 56.3% prior to any controls. Although we control for age in all of the analyses, the correlation raises concerns that the value effects of house age may vary by region and/or over time. We observe in Column 5 that including tract × quarter × age quintile fixed effects

reduce the difference in age between Confederate and control properties to an economically small and statistically insignificant 1.5%. The evidence in Table 4 supports the view that our regression approach effectively controls for observable value-relevant house characteristics.

5. Confederate Memorial Streets and Housing Outcomes

In this section, we study the implications of Confederate street names for housing outcomes. Section 5.1 presents the baseline pricing results, Section 5.2 presents several robustness checks, Section 5.3 contrasts Confederate versus Confederate Adjacent properties, Section 5.4 considers other housing market outcomes including listing time and listing withdrawals, and Sections 5.5 and 5.6 explore cross-sectional and time-series heterogeneity in the pricing of Confederate properties.

5.1 Confederate Streets and House Prices – Baseline Results

In Table 5, we present the results from estimating Equation (3) using different sets of fixed effects. In Specification 1, we include quarter fixed effects. The coefficient on *Confederate* is -4.70%, which is statistically significant based on standard errors clustered at the census tract level.[19] In Specification 2, we control for geographical variation in house prices by adding census tract fixed effects. Specification 3 interacts tract fixed effects with quarter fixed effects, allowing for the geographical variation in prices to vary across time. The inclusion of tract × quarter fixed effects results in a slightly smaller discount relative to Specification 1 (4.21% versus 4.70%). However, the inclusion of the richer set of fixed effects results in a dramatic increase in the R-squared (81.52% versus 42.57%) and reduces the standard error of the estimate by roughly 50%.

[19] Clustering by both census tract and quarter results in virtually identical standard errors.

Finally, given that differences in age between Confederate and non-Confederate properties potentially remain relevant after including tract × quarter fixed effects (see Columns 3 and 4 of Table 4), in Specification 4 we include tract × quarter × age quintile fixed effects. This specification helps to control for variation in the age discount (or premium) across regions and time. A disadvantage of this specification is that it shrinks the sample size, since 22% of all Confederate transactions have no corresponding control property (i.e., a non-Confederate property that sold in the same census tract, quarter, and age quintile). We find a slightly reduced, but statistically significant estimate of -2.93%.[20] The estimate also remains economically significant. In particular, the estimate translates to a roughly $7,000 discount for the average house in our sample (2.93% × $241,911).

We also note that the R-squared from Specification 4 increases to more than 88%. As pointed out by Oster (2019), the sizeable increase in R-squared as we include a richer set of fixed effects, coupled with the coefficient stability for the variable of interest, helps alleviate concerns that unobservable omitted variables drive the estimates. For example, if we conservatively assume that the maximum possible R-squared is 100% and that unobservables are equally important as observables (i.e., $\delta = 1$), a comparison of Specifications 1 and 4 would suggest that the true estimate on *Confederate* is -2.43%, which would still be statistically significant at a 5% under the (conservative) assumption that the standard errors remain unchanged from Specification 4.[21]

[20] The reduced estimate could stem from either the revised specification or because some Confederate properties are effectively excluded from the analysis due a lack of a non-Confederate control. To explore the relative importance of these two channels, we repeat Specification 3 after excluding the 22% of Confederate transactions that are effectively excluded in Specification 4. We find that the revised estimate (-3.68%) falls roughly midway between the estimates in Specifications 3 and 4, suggesting that both factors contribute to the decline.

[21] Specifically, Following Oster (2019), we estimate: $B^* = \tilde{B} - \delta [B(0) - \tilde{B}) \times (R_{max} - \tilde{R})/R(0)]$, where B^* equals the true (unobservable) estimate; $\tilde{B}$ = estimate with full set of observable controls; $B(0)$ = estimate with smaller set of observable controls; R_{max} = maximum possible R-squared; $\tilde{R}$ = R-squared with full set of controls; $R(0)$ = R-squared with smaller set of observables, and δ= the importance of unobservables relative to observables. The estimates for the full set of observable controls (i.e., $\tilde{B}$ and $\tilde{R}$) are taken from Specification 4 of Table 5, and the estimates from the model with the smaller set of controls (i.e., $B(0)$ and $R(0)$) are taken from Specification 1 of Table 5.

5.2 Confederate Streets and House Prices – Robustness

Although our approach carefully controls for house age, concerns may remain that the price effects of other important controls may exhibit significant variation across regions and time. The relatively small sample of transactions within a census tract quarter prevents us from interacting census tract × quarter with all control variables simultaneously. Instead, we interact census tract × quarter with each of the five control variables individually. For the continuous variables (*Age*, *House Size*, and *Lot Size*) we interact census tract × quarter with the quintile ranking of the variable (relative to other houses that sold in the same census tract and quarter), and for *Bed* (*Bath)*, we interact census tract × quarter with five separate indicators for houses with one, two, three, four, or five or more bedrooms (bathrooms). We also consider census tract × quarter × propensity score quintile fixed effects, where the propensity score for each property is based on regressing Confederate on the control variables from Table 5 and census tract × quarter fixed effects.

We show the *Confederate* coefficient estimates and the 95% confidence intervals for each model in Figure 2. For reference, the first column reports the estimates for census tract × quarter × age fixed effects and is therefore identical to the baseline results reported in Specification 4 of Table 5. We find that the estimates on *Confederate* when controlling for the other four attributes or the propensity score are similar and range from -2.71% (*House Size*) to -3.17% (*Bathrooms*).

A second concern is that heterogeneity in house quality within the census tract (roughly half as large as a zip code) is driving our findings. To alleviate this concern, we more finely partition regions to the census block group, which is typically about one-quarter the size of the census tract. Because census blocks are smaller than census tracts, 22% of Confederate transactions do not have a corresponding non-Confederate property that sells in the same quarter.

Despite the smaller sample size, we continue to find significant negative estimates, as shown in Figure 2.

Finally, we explore whether there are any clear time-series trends in the Confederate effect during the sample period. Figure 3 plots the rolling five-year estimates on *Confederate.* We find no evidence of a general time trend in the Confederate discount.[22] However, the effect does appear to be stronger during the financial crisis period when housing markets were very illiquid. Section IA2 and Table IA3 of the Internet Appendix provide additional evidence that the Confederate street effect is more pronounced during illiquid real estate markets, which is consistent with theoretical models that predict that the impact of heterogeneous preferences on prices should be larger when markets are more illiquid (Piazzesi, Schneider, and Stroebel, 2020).

5.3 Confederate Streets and House Prices – Street, Neighbor, or Amenity Effects

The evidence from Section 2.2 suggests that the residential sorting results are primarily driven by direct aversion to the street name itself (*Street Name Effect*), rather than other effects that may spillover to adjacent streets, such as aversion to living in close proximity to people who chose to live on a Confederate street (*Neighbor Effect),* or unobservable amenities *(Amenity Effect)* that are likely to be very similar for adjacent properties (e.g., proximity to parks or restaurants). Thus, the residential sorting evidence suggests that the pricing discounts associated with Confederate streets should generally not extend to *Confederate Adjacent* properties.

To evaluate this prediction, we repeat the analysis after augmenting Specification 4 of Table 5 with an indicator for properties that are adjacent to Confederate streets (*Confederate*

[22] The lack of a trend is perhaps surprising given that several prominent racial events occurred during the sample period that served to increase awareness of the racial underpinnings of Confederate symbol. We explore shocks to the saliency of Confederate Symbols in greater detail in Section 5.6. We find quick and sizeable increases in Confederate discounts following these events, yet the price effects are relatively short-lived, which helps explain the lack of a general time trend.

Adjacent). As in Section 2.2, we define a property as *Confederate Adjacent* if the property is located within *x* miles of the closest Confederate property (within the same census tract and sold in the same calendar quarter), where we set *x* equal to values of 0.05, 0.10, 0.25, or 0.50 miles. Table 6 tabulates the estimates for each of the four *Confederate Adjacent* measures. Across the four specifications, we observe that the estimates on *Confederate Adjacent* are always statistically insignificant, ranging from -1.62% to 2.66%. Further, the difference between *Confederate* and *Confederate Adjacent* is statistically significant in three of the four specifications.

In Panel B, we match the residential sorting (L2) sample by focusing on transactions that took place in Florida. The discount on Confederate properties is slightly larger than the full-sample estimates, although the estimate is less precisely estimated. In sharp contrast to the negative (and typically marginally significant) estimate on *Confederate*, the estimates on *Confederate Adjacent* are always positive and statistically insignificant, and the difference between *Confederate* and *Confederate Adjacent* is at least marginally significant ($p < 0.10$) in all four specifications. Together, the findings in Table 6 echo the residential sorting results in Table 2, and they suggest that direct aversion to Confederate memorial streets contributes to the price discount observed for Confederate properties.

5.4 Confederate Streets and other Housing Market Outcomes

The price discounts documented for Confederate properties are consistent with some homeowners being averse to purchasing houses on Confederate streets. A related prediction is that Confederate houses, due to the weaker aggregate demand, may be more likely to have their listing withdrawn, may take a longer time to be sold, or may be more likely to sell at large discounts relative to their initial listing price. To test these predictions, we supplement the ATTOM transaction data with hand-collected information on listing dates, listing prices, and house

withdrawals from Zillow. We search the Zillow website using the property addresses from ATTOM. We verify whether the searched outcome in Zillow is indeed the same property as the one reported in ATTOM by comparing their house characteristics. The listing and price history are very scarce prior to 2008, so we focus on the period from 2009 to 2020. Even for the later sample period, Zillow only provides information on listing dates and listing prices for a subset of properties. We are able to collect listing information for 2,334 of the 4,052 Confederate properties. Our final sample includes 2,619 listings of Confederate properties and 17,744 non-Confederate properties that were listed in the same census tract and quarter.

We construct three variables from the Zillow data: *Withdrawn* is an indicator equal to one if the house listing is subsequently withdrawn without selling; *Slow Sale* is an indicator equal to one if the difference between the selling date (or withdrawal date) and the listing date is in the top quintile; and *Large Discount* is an indicator equal to one if *log (Listing Price /End Price)* is in the top quintile of the distribution, where end price is defined as either the sales prices or the listing price on the date the property is withdrawn. We also continue to include the other house attribute data reported in ATTOM.

Table IA4 of the Internet Appendix provides summary statistics (similar to Table 3) for the merged Zillow-ATTOM sample. We find that the median *End Price* and *Listing Price* are $199,900 and $189,900, which is similar to the median sale prices reported for the full sample in Table 3 ($180,000). The average value of *Withdrawn* is 8.42%; the average values of *Slow Sale* and *Large Discount* are approximately 20% by construction; *Slow Sale* corresponds to properties that do not sell within (roughly) six months of the listing date, and *Discount* corresponds to discounts of 10% or larger.

To explore whether Confederate properties are more likely to experience bad market outcomes, we estimate the following regression:

$$Y_{it} = \alpha + \beta Confederate_{it} + \gamma X_{it} + FE + \varepsilon_{it}, \quad (4)$$

where *Y* is either equal to *Withdrawn*, *Slow Sale*, or *Large Discount*. *Confederate* and *X* are defined as in Equation (3), and FE denotes census tract × listing quarter fixed effects.[23]

Specifications 1-3 report the results for *Withdrawn, Slow Sale,* and *Large Discount*, respectively. We find the Confederate properties are 1.11 percentage points more likely to be withdrawn, 1.72 percentage points more likely to have a slow sale, and 2.01 percentage points more likely to sell at a large discount. Relative to the sample means of each variable, these estimates reflect percentage increases of 13.2%, 8.6%, and 10.1%, respectively, although the estimate for *Withdrawn* is not reliably different from zero. To explore whether the documented effects are distinct from each other, we repeat the analysis for each outcome variable after controlling for the other two outcome variables (e.g., when *Withdrawn* is the outcome variable, we include *Slow Sale* and *Large Discount* as controls). The results, reported in Specifications 4-6, are qualitatively similar. Collectively, the findings from Table 7 provide further support for the view that *Confederate* properties suffer from lower aggregate demand.

5.5 Confederate Streets and House Prices – The Role of Homeowner Demographics

We expect that the negative relation between Confederate street names and house values will be larger in areas where aversion to Confederate memorials is likely to be stronger. Motivated by survey evidence and the evidence of residual sorting in Section 2.1, we expect that the

[23] Due to the more limited sample of properties with listing data (roughly half the size of the sale sample), we do not include census tract × listing quarter × age quintile fixed effects. As a middle ground, in Table IA.5 we repeat the analysis using census tract × listing quarter fixed effects and census tract × age quintile fixed effects and find qualitatively similar results.

Confederate discount will be larger in in areas with a greater fraction of Black residents, and in areas where the population is more highly educated and more politically liberal.

We collect ethnicity and education level information from the U.S. Census Bureau. We compute the percentage of Black residents (college graduates) out of the total population of adults for each county-year.[24] We partition the sample into groups based on whether the demographic variable for the county is above or below the median for a given quarter. The median sorts generate sizeable variation in our demographic variables of interest. For example, the fraction of Black residents in counties with above versus below median Black population is 27% versus 6%.[25] We collect information on Political affiliation from County Presidential Election Returns, provided by MIT Election Data and Science Lab.[26] The dataset provides county-level number of voters for the Democrat and Republican Party presidential candidates as well as the total number of voters for the five past presidential elections (2000-2016). For each county-year, we compute the percentage of Democratic party voters.

Specifications 1 through 3 of Table 8 report the results. For all three partitioning variables, the estimate on *Confederate High* is statistically significant. The estimates on *Confederate Low* are always smaller than the estimates on *Confederate High* and generally not statistically significant. For example, Specification 1 indicates that the Confederate discount is a significant -3.64% in counties with above median Black population compared to a statistically insignificant -1.98% in counties with below median Black population. We note, however, that the difference between the two estimates is not reliably different from zero. We observe similar patterns when

[24] The Bureau provides actual number of residents by each ethnicity in 2000 and 2010, while providing the estimates during the other periods. We rely on the ethnicity estimates provided up to 2019. At the time of writing, the Bureau has released the estimates for 2020 but not the actual value.
[25] The corresponding difference for Democrats is 58% versus 36%, and the difference for college educated is 34% versus 20%.
[26] https://dataverse.harvard.edu/dataset.xhtml?persistentId=doi:10.7910/DVN/VOQCHQ

we partition on the fraction of the country that voted Democrat (Specification 2) or the fraction of the country that is college educated (Specification 3).

Views on Confederate memorials also vary by region. For example, the 2021 PRRI survey of American views towards Confederate Monument Reform finds that support for monument reform is weaker in Southern States (41%) compared to states outside of the South (56%). We consider two proxies for the South. The first is the group of eleven states that belonged to the Confederacy (*Confederate State)*.[27] We also zoom in on the five states that have the largest number of Confederate statues and monuments: Georgia, Virginia, North Carolina, Texas, and Alabama (*Top 5 Confederate State)*.[28] Specification 4 indicates that the Confederate discount is a significant -4.18% in non-Confederate states compared to a statistically insignificant -1.93% in Confederate states, and Specification 5 shows that the differences are amplified for Top-5 statue states (-4.33 versus 0.64%).

We gauge the joint predictability of the individual measures by constructing a composite measure which is the sum of four indicator variables: *Non-Top 5 Confederate State* + Black + *Democrat* + *College*.[29] We partition *Confederate* into *Confederate High Composite*, *Confederate Mid Composite*, and *Confederate Low Composite*, where *High Composite (Low Composite*) equals one if the composite score is above (below) the median value of 2, and *Mid Composite* equals one if the composite score is equal to the median value. Specification 6 reports the results. We find that the estimate on *Confederate Low* is a statistically insignificant 1.58%, while the estimate on

[27] The specific states are Alabama, Arkansas, Florida, Georgia, Louisiana, Mississippi, North Carolina, South Carolina, Tennessee, Texas, and Virginia.
[28] https://www.splcenter.org/20190201/whose-heritage-public-symbols-confederacy
[29] We do not include *Non-Confederate State* since it is strongly related to *Non-Top5 State*. Adding *Non-Confederate State* to the composite measure yields qualitatively similar results.

Confederate High is a highly significant -5.52%. Further, the difference between the high and low composite groups is economically large (-7.11%) and statistically significant.

5.6. Confederate House Prices: Shocks to the Saliency of Confederate Symbols

We hypothesize that the Confederate street effect is likely to be stronger after major events that result in increased attention to the racial underpinnings of Confederate symbols. Following Da, Engelberg, and Gao (2011), we measure attention to the Confederacy using Google search frequency for the term "Confederate Flag". Figure 4 plots the time-series variation in monthly search frequency from January 2004 through December 2020, where the values represent search intensity relative to the maximum value. The figure indicates that the distribution of search intensity is highly skewed. For example, the 75th percentile is 4 and the 95th percentile is 7, out of maximum search score of 100.

The figure highlights three noticeable spikes in attention to the Confederate Flag. The first, and most dramatic (search score of 100), occurs in June of 2015, which corresponds to a mass shooting in Charleston, South Carolina. The shooter who killed nine Black parishioners at a Bible study had previously posted photos on his website with emblems associated with White supremacy and the Confederate flag. The shooting generated significant debate on the modern display of the flag and other commemorations of the Confederacy, and afterwards the South Carolina General Assembly voted to remove the Confederate flag from State Capitol grounds.

The second spike (search score of 16) occurs in August 2017. This follows the "Unite the Right" rally in Charlottesville, Virginia. The organizers' stated goals included the unification of the American White national movement and opposing the proposed removal of the Robert E. Lee statue. During the protest, a self-identified White supremacist intentionally drove his car into a group of counter-protesters, resulting in one death and numerous injuries. The third spike (search

score of 44) occurs in June of 2020 and corresponds to the Black Lives Matter (BLM) protests over police brutality and racial injustice. Survey evidence suggests that between 15 and 26 million people participated in BLM demonstrations over the deaths of George Floyd and others, making the protests the largest movement in America's history.[30] Following the protests, Mississippi lawmakers voted to change the state flag that contained the Confederate battle emblem.

To explore the impact of these salient racial events, we consider a staggered difference-in-difference design. We limit the sample to the [-12, +12] month window, where period 0 is the month of the event. We then estimate Equation (1) after interacting *Confederate* with *Post*, an indicator that is equal to one for the post-event window (i.e., months 1 through 12) and zero for the pre-event window. Specification 1 of Table 9 reports the results. We find the coefficient on *Confederate* × *Post* is -4.92%, indicating that the discount for *Confederate* properties is 4.92% larger in the year following the salient racial events relative to the year prior to the event. To better understand the dynamics following the major events, in Specification 2 we decompose *Confederate* × *Post* into *Confederate* × *PostQ1*, *Confederate* × *PostQ2*, *Confederate* × *PostQ3,* and *Confederate* × *PostQ4,* where *Confederate* × *PostQ1* is an indicator equal to one if the transaction occurred in the quarter (i.e., three-months) following the event, and *PostQ2* -*PostQ4* are defined analogously. Specification 2 reports the results. We find that the discount increases substantially in the quarter following the event (-8.13%). However, the estimates for quarters two through four are insignificant, suggesting that the impact of increased attention is relatively short lived.[31] Specification 3 augments Specification 2 by including Confederate × *PreQ1*, where *PreQ1*

[30] https://www.nytimes.com/interactive/2020/07/03/us/george-floyd-protests-crowd-size.html

[31] All three events occur in the summer (two in June and one in August), raising the concern that our findings might be driven by seasonality in the Confederate discount. In Figure IA2, we explore whether the Confederate discount varies by calendar month. We find the estimates are stable, which alleviates the concern that seasonality drives the large discounts in the quarter immediately following the attention-grabbing events.

is an indicator equal to one in the three months before the post-event window. We find that the coefficient on Confederate × *PreQ1* is statistically insignificant, which is inconsistent with pre-trends driving the increased discount in the period immediately following the event.

Finally, in Specification 4 we explore whether the sizeable discount in the quarter following the attention-grabbing events is concentrated around a particular event. Since the effects are concentrated in the quarter after the event, we shrink the event window to [-12,3] and then decompose Confederate × *PostQ1* into three separate indicators for each event (*Charleston, Charlottesville*, and *BLM Protests)*. The estimated discounts following all three events are sizeable, ranging from 7% (*BLM Protests*) to 11% (*Charlottesville*), although none of the individual estimates are significantly different from zero. The patterns are consistent with all three events having similar effects on homeowner demand for Confederate properties.

6. Confederate Memorial Name Changes and House Prices

Changing perceptions of Confederate memorials have led to a number of name changes in recent years. In this section, we examine the impact of Confederate school name changes on house prices. We focus on school name changes rather than street name changes because street name changes are rare to date and school name changes potentially affect a much larger pool of potential homebuyers.[32]

The Southern Poverty Law Center (SPLC) maintains a list of Confederate memorials throughout the United States and tracks removals and name changes. From the SPLC dataset, we gather information on elementary, middle, and high schools whose names were related to the

[32] For school name change, there are 11,298 (10,631) transactions of changers (non-changers) during the three-year window of the school name change year, when we condition on zip code-quarters with property sales in both name-change and no-name-change school districts. For *street name* change, there are 150 (1,025) transactions of changers (non-changers) during the three-year window of street name changer year, located in 14 streets, based on the same conditions applied for school name change.

Confederacy (as defined in our street analysis) and subsequently changed names during our 2000 to 2020 sample period. We initially identify 42 name change schools in 38 distinct zip codes.[33]

We then extract from ATTOM the addresses of single-family houses that are located in one of the 38 zip codes. We further collect school district information, historical house sales prices, and house attributes of these properties from *Zillow*.[34] Zillow does not provide price information for properties in four of the zip codes, all of which are located in Mississippi, a state without mandatory transaction information disclosure. We also exclude properties located in zip codes whose school districts are unidentified according to Zillow. Lastly, we drop one zip code with no property price information available prior to the change period. We focus on the three-year window surrounding the school name change year, and we limit the sample to zip code-quarters with property sales in both name-change and no-name-change school districts.

The final sample includes 21,929 transactions that are located in 23 zip codes. We identify 5 school name changes in 2016, 4 in 2017, 4 in 2018, 1 in 2019, and 9 in 2020. Roughly half (51%) of the transactions consist of houses that experienced a school name change; in addition, 27% of transactions occur after the name change, 54% occur prior to the name change, and 19% occur in the same year as the name change. In our baseline difference-in-difference analysis (Specification 1), we exclude transactions that occur in the event year; however, we include these observations in the event-time test (Specification 2). We also note that because many name changes occurred later in the sample, the post-sample period is often truncated.

To examine the impact of school name changes on home prices, we estimate a staggered difference-in-differences (DID) regression in which we compare transactions for houses in name-

[33] We exclude three schools that were closed instead of changing their name, since changes in educational opportunities may have confounding effects on home values.
[34] The ATTOM dataset does not contain information on school assignments, and we also rely on Zillow for pricing data as well since the ATTOM sample ends in 2020 (when many of the name changes took place).

change school districts with transactions in the no-change districts within the same location-quarter, before and after the school name change occurs. Specifically, we estimate the following regression:

$$\log(Price)_{\text{it}} = \beta_1 NameChg_i + \beta_2 NameChg_i \times Post_{it} + \gamma X_{it} + FE + \epsilon_{it}, \quad (5)$$

where $NameChg_i$ equals one if property *i* is located in a school district that changed its name and $Post_{it}$ equals one if property *i* is sold after the school's name change year, and zero if property *i* is sold prior to the name change year. For properties in no-change school districts, $Post_{it}$ is assigned based on timing of the name change in the same zip code. *X* includes controls for the specific number of bedrooms and bathrooms (up to five), and the natural log of *House Size*, and *Age*.[35]

Ideally, we would include census tract × quarter fixed effect as with our earlier analysis. However, school districts rarely cross census tract boundaries, and including these precise fixed effects reduces the sample of relevant transactions by over 80%.[36] Therefore, we relax this condition by including zip code × quarter fixed effect, along with census-block fixed effects. Our identification assumption is that, in the absence of school name change, properties located in changer and non-changer school districts would have experienced comparable price changes. It is important to acknowledge that the decision to change a school name is endogenous. For example, school name changes may be more likely to occur in more liberal or highly educated areas, in which case the estimates we observe for school names changes may not generalize to other areas.[37]

[35] The controls are identical to the baseline analysis except that we no longer include the natural log of *Lot Size* since this variable is generally not available from Zillow.

[36] Including tract × quarter fixed effects instead of zipcode × quarter fixed effects yields qualitatively similar but statistically insignificant results.

[37] From EducationWeek, we collect the list of schools whose names are related to Confederacy, but did not change its name prior to year 2022 (https://www.edweek.org/leadership/data-the-schools-named-after-confederate-figures/2020/06). We compare the county-level demographics of these schools to those of name-change schools used in our analysis. On average, we find that the fraction of college-educated (Democrat-voting) residents in name-change

Nevertheless, a positive significant coefficient on β_2 would indicate that, at least in certain areas, aversion to Confederate memorials is large enough to impact real estate prices.

Specifications 1 of Table 10 reports the difference-in-difference results. We find that the estimate on $NameChg_i \times Post_{it}$ is positive and significant. The estimate implies that houses in a school district appreciate by 5.21% when the school removes its Confederate name. In order to further explore the time-series dynamics surrounding school name changes, we re-estimate equation (5) after dropping $NameChg_i \times Post_{it}$ and instead including $NameChg_i \times Year\ (-2), NameChg_i \times Year\ (-1), NameChg_i \times Year\ (0), NameChg_i \times Year\ (+1),$ and $NameChg_i \times Year\ (> +1)$, where $Year\ (-2)$ is an indicator equal to one if the transaction occurred two years prior to the name change, and the other variables are defined analogously.[38]

The results are reported in Specifications 2 of Table 10. We find that the coefficient on $NameChg_i \times Year\ (-2)$ and $NameChg_i \times Year\ (-1)$ are economically small and statistically insignificant, which suggests that our findings are unlikely to be attributable to pre-trends. The estimates on $NameChg_i \times Year\ (0)$ and $NameChg_i \times Year\ (+1)$ are both positive and marginally significant ($p < 0.10$), consistent with name changes having an immediate impact on prices, and the estimate on $NameChg_i \times Year\ (> +1)$ is even larger in magnitude, which suggests that the immediate price reaction does not reverse over the subsequent two years. In sum, the findings from Table 10 suggest that homes that are zoned to attend Confederate schools experience a significant price appreciation when the Confederate name is removed.

7. Confederate Memorial Streets and House Preferences – Experimental Evidence

schools' counties are 18.5% (20.8%) higher compared to those in no-name-change counties; the mean-difference tests are statistically significant at 1% (10%) level. On the other hand, the two groups have similar Black populations.

[38] We group years +2 and +3 together because, due to the considerable number of name changes occurring in 2020, there are relatively few observations in each category.

Although our analysis includes controls for several house features, concerns may remain that unobservable characteristics could be driving the results. In this section, we consider an experimental setting that allows us to examine potential homebuyers' choices in an environment where houses are truly identical except for street name. An additional advantage of the experimental design is that we can directly measure decision makers' views on Confederate memorials and examine whether these views influence house choices.

To improve the transparency and consistency of our experimental evidence, we pre-registered the experiment with the Open Science Framework. The pre-registration document, which pre-specifies the hypothesis, the design, the sample size, and the proposed statistical analysis, is available here: https://osf.io/8jubg/.[39] We also summarize the experimental design in the next section.

7.1 Experiment Overview

The experiment is designed to place potential homebuyers in a situation where they are choosing between two similar houses. Specifically, each respondent was asked to imagine that they are moving to a new town and are looking for a home. They were presented with 10 pairwise comparisons of houses and informed that each of the hypothetical houses is in the same neighborhood, was built around the same time, and is similar in size (same number of bedrooms and bathrooms). For each pair of houses that they were presented, they were expected to choose where they would prefer to live. Respondents were obtained using Prolific, and we stipulated that they be US citizens, residing in the US, between the ages of 25 and 70, and with self-reported income of greater than $30,000.

[39] The preregistration is hosted by OSF (https://osf.io/). However, the document posted to OSF includes information on the authors' names. For the purposes of the review process, an anonymous version of the preregistration can be found here https://www.dropbox.com/s/q72im9j5arhkoh3/Confed-SurveyPrereg-Blind.pdf?dl=0.

Respondents were presented with three photos for each house (front, kitchen, and bathroom), along with the property street name. The overall experiment consisted of five unique houses and five unique street names (including one Confederate memorial name: *Dixie St.*). We chose the five sets of house pictures with the goal that they would be viewed as similar in desirability.[40] The experiment design comprised twenty blocks of 10 pairwise comparisons (200 unique pairwise comparisons in total) so that each combination of name and house is considered in both left and right positions. Each participant was randomly assigned to one of the twenty blocks and was asked to choose between 10 pairwise comparisons (houses-name matches were internally consistent for each participant). In order to reduce the risk of response bias, respondents were not informed about the nature of the study, and only four of the ten comparisons include a Confederate street. An example of the survey is presented in Section IA.5 of the Internet Appendix.

Motivated by our analysis in Section 4 that studies saliency shocks, we also included a priming component in the experiment design. Before beginning the survey, participants were randomly assigned to one of two conditions: race issue priming vs. not primed. In particular, half of respondents were asked to read and summarize an article that underscores the racial underpinnings of Confederate symbols, and the other half were asked to read and summarize a control article without racial or Confederate references.

After completing the house choice portion of the survey, participants were asked to enter demographic information including their political preferences, their level of education, and their ethnicity, and their current state of residence.[41] We next directly ask participants "How would you

[40] Photos were chosen from online searches for three bedroom, two bath houses located in Southern states and originally built in the late 1980s to early 1990s (matching the age of the average Confederate Street home). Control street names were chosen from the list of control street names from the archival evidence.

[41] We gathered information on the current state of residence, age, and gender to help provide diagnostic evidence on the representativeness of the sample. Based on comments we received when presenting our findings, we now also treat residing in a non-Confederate state, which we consider in our archival analysis, as a mediating variable in our

feel about living on a street that honors the Confederacy?" using a 1 to 5 scale, where 1 denotes *Extremely Negative*, 3 is *Neutral*, and 5 is *Extremely Positive*. This question is asked after the house comparisons, without the opportunity to go back, to ensure it does not influence their answers. We collected survey data for 1000 participants, resulting in 10,000 house choices with 4,000 involving a Confederate street.

Respondents were not tasked with directly choosing preferred address names, and we anticipate that for most respondents the photos are likely to be the first order determinant for house choice. However, we conjecture that concerns about Confederate symbols on average, and in particular by certain demographic groups, will influence house choice. Our primary hypothesis is that participants will be less likely to choose houses that are located on streets that honor the Confederacy (*H1*). We also expect that the relation will be stronger for participants who express greater direct negative reactions to Confederate memorials (*H2*). Indirectly, we expect the relation to be stronger for respondents with demographic traits that are typically associated with more negative views of the Confederacy including (e.g., Black participants, participants with higher education levels, participants who identify as Democrats, and those living outside the South). Our final prediction is that the negative reaction to a Confederate memorial street name will be stronger for participants that have been primed to consider the racial underpinnings of Confederate symbols (*H3*). Hypotheses *H1*, *H2*, and *H3* are designed to mirror the archival results reported in Section 5.1 (baseline results), Section 5.5 (demographic results), and Section 5.6 (shocks to saliency), respectively.

7.2 Experimental Summary Statistics

experimental setting. However, we did not preregister this particular mediating variable (Non-Confederate State) in our report, so this specific evidence should be interpreted as "exploratory" or "non-preregistered."

Panel A of Table 11 reports summary statistics on the demographics of the survey users. We find that more than 64% of users report having a negative view of Confederate streets (i.e., a score of 1 or 2), compared to less than 4% of users who report a positive view (i.e., a score of 4 and 5). 54% of the survey respondents identify as Democrats, 67% are college educated, 68% live in a non-Confederate state, while just 6.8% identify as Black.[42] We also report the means of each variable for different subsamples. For example, column 2 reports the means of all the demographic variables for the subsample of users who view Confederate memorials negatively. A comparison of columns 1 and 2 indicates that aversion to confederate memorials is, as expected, stronger among Democrats, college educated respondents, Black respondents, respondents living in a non-Confederate state, and respondents who received the priming article.

Panel B reports summary statistics on the frequency with which respondents selected certain houses, which we label *House 1 – House 5*, where house numbers were defined based on their ex-post popularity. We observe some variation, with the most popular house (i.e., House 1) being selected 23.1% of the time and the least popular house (House 5) being selected 16.9% of the time. Importantly, the street names are randomly assigned to each house with equal likelihood, so differences in the quality of the house should not bias the estimates on house preferences.

Panel C reports summary statistics on the frequency with which respondents selected specific street names. All users saw each street name in four out of the 10 pictures, so the average street should be selected 20% of the time. We find that Dixie Street is only selected 18.9% of the time, or 5.5% less than expected, which is consistent with *H1*. In contrast, the other four control street names are selected between 20.0% and 20.7%. Consistent with *H2* and *H3*, the fraction of

[42] The sample of respondents was 54% female (45% male, 1% non-binary/prefer not to say), and 70% of the respondents were between 25 and 45 years old.

respondents selecting Dixie Street is lower among respondents who view Confederate memorials negatively (18.2%) and among respondents who received the priming article (18.7%).

7.3 Experimental Regression Results

To more formally test *H1*, we estimate the following linear probability model:

$$House\ \#1 = \beta_1 Dixie\ Dif + House\ \#FE_1 + House\ \#FE_2 + \varepsilon_{it}, \quad (6)$$

where *House #1* is an indicator equal to one if the participant reports preferring the first house (i.e., the house on the left of the screen) to the second house (i.e., the house on the right of the screen), *Dixie Dif* equals one if the first house (i.e., the house on the left) is on Dixie Street, negative one if the 2nd house (i.e., the house on the right) is on Dixie Street, and zero if neither house is on Dixie Street, *House #FE1* are a set of indicator dummies to indicate which house was the first (left) house seen by participants, and *House #FE2* is defined analogously. Standard errors are clustered by participant.

Specification 1 of Table 12 reports the results. The estimate on *Dixie Dif* is -2.65%, indicating that participants are 2.65 percentage points (or 5.3%) less likely to select a house if it is located on *Dixie Street*. The finding supports our prediction that participants will, on average, be less likely to choose houses that are located on streets that honor the Confederacy.

To test *H2* and *H3*, we estimate the following linear probability model:

$$House\ \#1 = \beta_1 Dixie\ Dif \times High\ Aversion + \beta_2 Dixie\ Dif \times Low\ Aversion + \beta_3 High\ Aversion + \ \#House\ \#FE_1 + \ House\ \#FE_2 + \ \varepsilon_{it}. \quad (7)$$

In testing *H2*, we consider one direct proxy for *High Aversion* (*Negative Confederate Sentiment)* and four indirect proxies (*Democratic, College Educated*, *Black*, and *Non-Confederate State*). In testing *H3*, our measure of *High Aversion is* whether the respondent was asked to read the priming

article *(Priming Article*). For each variable, the *Low Aversion* group includes all participants not classified as *High Aversion*.

Specification 2 of Table 12 reports the results where *High Aversion* is defined as *Negative Confederate Sentiment*. The estimates indicate that users who view Confederate memorials more negatively are 4.67 percentage points (9.3%) less likely to select houses on Dixie Street. This estimate is significantly different from zero at a 1% level and significantly different from the estimate on the *Low Aversion* group. Specifications 3-6 report the results for the indirect proxies for viewing Confederate memorials negatively. The evidence for the indirect proxies is generally consistent with our predictions. The one exception is for Black respondents; however, this test has low power since the sample of Black respondents is small (N = 68). Finally, in Specification 7 we find that respondents who received the priming article are less likely to select Dixie Street than those who did not (-3.03% versus -2.26%), however the two estimates are not reliably different from each other.

Overall, the experimental evidence in this section is highly consistent with our empirical evidence. In particular, the evidence from both approaches suggests that, on average, homebuyers are averse to purchasing homes on Confederate memorial streets, particularly among the subset of users who are more likely to view Confederate memorials negatively.

8. Conclusion

This paper studies the housing market implications for homes located on streets that honor the Confederacy. We find that houses on Confederate streets are 33% less likely to be owned by Black residents, 20% less likely to be owned by registered Democrats, and 17% less likely to be owned by individuals with a college education. Consistent with the sorting results, we find that properties located on Confederate streets sell at a 2.9% discount relative to otherwise similar

nearby properties. Both the sorting and pricing results do not spillover to adjacent properties, suggesting that our findings are primarily attributable to a direct aversion to Confederate street names.

Several auxiliary tests suggest that Confederate houses' negative market outcomes are a result of reduced aggregate demand from certain homebuyers who wish not to glorify a part of America's history that is associated with White supremacy. First, the discount for Confederate properties is concentrated in areas where a high population of residents view Confederate memorials as symbols of racism, including areas with a larger Black population, more liberal voters, and states outside of the Southeast. Second, the discounts are larger after salient events that intensify the negative connotations associated with Confederate memorials. Third, the removal of Confederate school names is associated with significant house price increases. Fourth, the aversion to Confederate streets continues to hold in an experimental setting, with the effects being particularly strong among survey participants who are more likely to view Confederate memorials negatively.

The findings echo recent literature on the importance of social norms and preferences in determining asset values. Our evidence also speaks to public debate regarding the appropriateness of Confederate memorials. In particular, our analysis offers a market-based approach for uncovering the marginal homebuyer's preferences for Confederate memorials. Our findings inform considerations to rename Confederate streets. Although to date only a handful of Confederate streets have been renamed, existing discussions often emphasize the costs involved. Our findings highlight potential benefits to homeowners by expanding the set of potential homebuyers.

Appendix A: Variable Definitions

A.1 L2 Homeowner Data

- *Race (Black)* – an indicator equal to one if all the owners of the house identify as Black. [Source: L2].
- *Registered Democrat* – an indicator equal to one if all the owners of the house are registered Democrats. [Source: L2].
- *Education (Some College)* – an indicator equal to one if all the owners of the house have some college education [Source: L2].
- *Income* – the combined income of the owners of the house. [Source L2].
- *Age* – the age of the primary homeowner (in years). [Source L2].
- *Confederate* – An indicator variable equal to one if the house is located on a street that honors the Confederacy. We consider variants of the names "Robert E. Lee," "Jefferson Davis," "Confederate," "Stonewall Jackson," or "Dixie." [Source: L2 Data].
- *Confederate Adjacent*– An indicator equal to one if the property is located within *x* miles of the closest Confederate property, where we set *x* equal to values ranging from 0.05 miles to 0.50 miles.

A.2 ATTOM House Attributes

- *Confederate* – An indicator variable equal to one if the house is located on a street that honors the Confederacy. We consider variants of the names "Robert E. Lee," "Jefferson Davis," "Confederate," "Stonewall Jackson," or "Dixie." [Source: ATTOM Data].
- *Control House* – any house that sold in the same census tract and same calendar quarter as a *Confederate* house. [Source: ATTOM Data].
- *House Size (sq. ft.)* – House building area of the property in square feet. [Source: ATTOM Data].
- *# Bedrooms (Bathrooms*) – Number of bedrooms (bathrooms) in the property.[43] [Source: ATTOM Data].
    - *Bed2* (*Bath2*) – an indicator equal to one if the house has 2 bedrooms (2 bathrooms) and zero otherwise. Other bed (bath) indicators are defined analogously.
- *Age (years)* – the difference between house sale date and house-built date, divided by 365; assuming that the house is built on the first date of built year. [Source: ATTOM Data].
- *Lot Size (sq. ft.)* – Lot size of the property in square feet. [Source: ATTOM Data].
- *Confederate Adjacent*– An indicator equal to one if the property is located within *x* miles of the closest Confederate property, where we set *x* equal to values ranging from 0.05 miles to 0.50 miles. [Source: ATTOM Data].

A.3 Zillow Listing Variables

[43] For 7% (0.2%) of observations where the number of bedroom (bathroom) is unavailable, we infer values using total number of rooms and bathrooms/bedrooms as follows: $Inferred\ \#\ bedroom = Total\ \#\ room - \#\ bathroom - 1$; $Inferred\ \#\ bathroom = Total\ \#\ room - \#\ bedroom - 1$.

- *Withdrawn* – an indicator equal to one if the house listing is subsequently withdrawn without selling. [Source: Zillow].
  - A house is considered to be sold if the sale listing is removed after the "sale pending" or "sold" indicator.
- *Slow Sale* – an indicator equal to one if the difference between the selling date (or withdrawal date) and the listing date is in the top quintile. [Source: Zillow].
- *Large Discount* – an indicator equal to one if *log (Listing Price /End Price)* is in the top quintile of the distribution, where end price is defined as either the sales price or the listing price on the date the property is withdrawn. [Source: Zillow].
- *Listing Price* – the asking price when the property is first listed. [Source: Zillow].

A.4 Regional and Demographic Variables

- *High Black Population* – an indicator equal to one if the house is located in a country with above median Black population. Median breakpoints are computed based on all transactions that occurred during the calendar quarter. [Source: US Census Bureau].
- *High Democrat* – An indicator equal to one if the house is located in a county where the percentage of votes for Democratic party presidential candidate in the county is above the median. Median breakpoints are computed based on all transactions that occurred during the calendar quarter. [Source: MIT Election Data and Science Lab].
- *High College* – An indicator equal to one if the house is in a country with above median fraction of 4-year college graduates. Median breakpoints are computed based on all transactions that occurred during the calendar quarter. [Source: US Census Bureau].
- *Non-Confederate States* – an indicator equal to one if the house is in a state that was not one of the original 11 Confederate states (Alabama, Arkansas, Florida, Georgia, Louisiana, Mississippi, North Carolina, South Carolina, Tennessee, Texas, and Virginia.).
- *Non-Top 5 Statue* – an indicator equal to one if the house is in a state that is not in the top 5 in the total number of Confederate statues (Georgia, Virginia, North Carolina, Texas, and Alabama). [Source: https://www.splcenter.org/20190201/whose-heritage-public-symbols-confederacy].
- *Composite* – the sum of non-Top *5 Statue* + *High Black Population* + *High Democrat* + *High College*.
  - *Low Composite (High Composite)* – an indicator equal to one if the *Composite* score is below (above) the median value of 2.
  - *Mid Composite* – an indicator equal to one if the *Composite* score is equal to the median value of 2.

A.5 School Name Change Variables

- *Name Change* – An indicator equal to one if the house is located in a school district that changes its name.
- *Post* - An indicator equal to one if the transaction took place after the school name change.
  - *Year (+1)* – an indicator equal to one if the transaction occurred in the year after the name change.

- *Year (> +1)* –an indicator equal to one if the transaction occurred in the two or three years after the name change.
- *Year (-1)* – an indicator equal to one if the transaction occurred in the year prior to the name change.

A.6 Experimental Data

- *Street Names* – We manipulate the street names that correspond to a specific picture of a house. In particular, different participants see the exact same house with a different street name. This manipulation allows us to examine the impact of street names holding the house constant. In our study, we consider four non-confederate street names: *Kenwood, Gresham, Juniper,* and *Linden* and one confederate street name: *Dixie*.
  - The main independent variable of interest is *Dixie Dif* which is equal to one if the first house (i.e., the house on the left) is on Dixie Street, negative one if the 2nd house (i.e., the house on the right) is on Dixie Street, and zero if neither house is on Dixie Street.
- *Primed* – an indicator equal to one if the participant was randomly assigned to be in the primed group. Participants in the primed group begin the survey by reading an article that underscores the racist connotations of Confederate symbols (Confederate flag removals following the Charleston Church shooting). Participants in the non-primed group begin by reading an article of similar length on a subject unrelated to race (the harmful effects of social media on teens).
- *House #1* – an indicator equal to one if the participant reported preferring the first house (i.e., the house on the left of the screen) to the second house (i.e., the house on the right of the screen), and zero if the participant reported preferring the second house.
- *Negative Confederate Sentiment* – an indicator equal to one if the participant reported that they would feel either "extremely bad" or "somewhat bad" if they lived on a Confederate street.
- *Positive Confederate Sentiment* – an indicator equal to one if the participant reported that they would feel either "extremely good" or "somewhat good" if they lived on a Confederate street.
- *Black Respondent* – An indicator equal to one if the respondent identifies as "Black / African American."
- *Democrat* – An indicator equal to one if the respondent self-reported as usually voting "Democratic."
- *College Educated* - an indicator equal to one if the participant's self-reported education level is a bachelor's degree or higher.
- *Non-Confederate State* – an indicator equal to one if the participant resides in a state that was not one of the original 11 Confederate states (Alabama, Arkansas, Florida, Georgia, Louisiana, Mississippi, North Carolina, South Carolina, Tennessee, Texas, and Virginia).
- *House #FE$_1$* – a set of indicator dummies to indicate which house was the first (left) house seen by participants. We include five different houses and thus four indicator variables (with the fifth house being the omitted group).
- *House #FE$_2$* – a set of indicator dummies to indicate which house was the second (right) house seen by participants. All other details are analogous to *House #FE$_1$.*

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Figure 1. Confederate Street Locations

This figure plots the distribution of the Confederate streets with a transaction in our sample. Sample streets are represented by filled in circles. Grayed states are those without mandatory disclosure of house transaction information. Disclosure in the cross-hatched states varies at the county level.

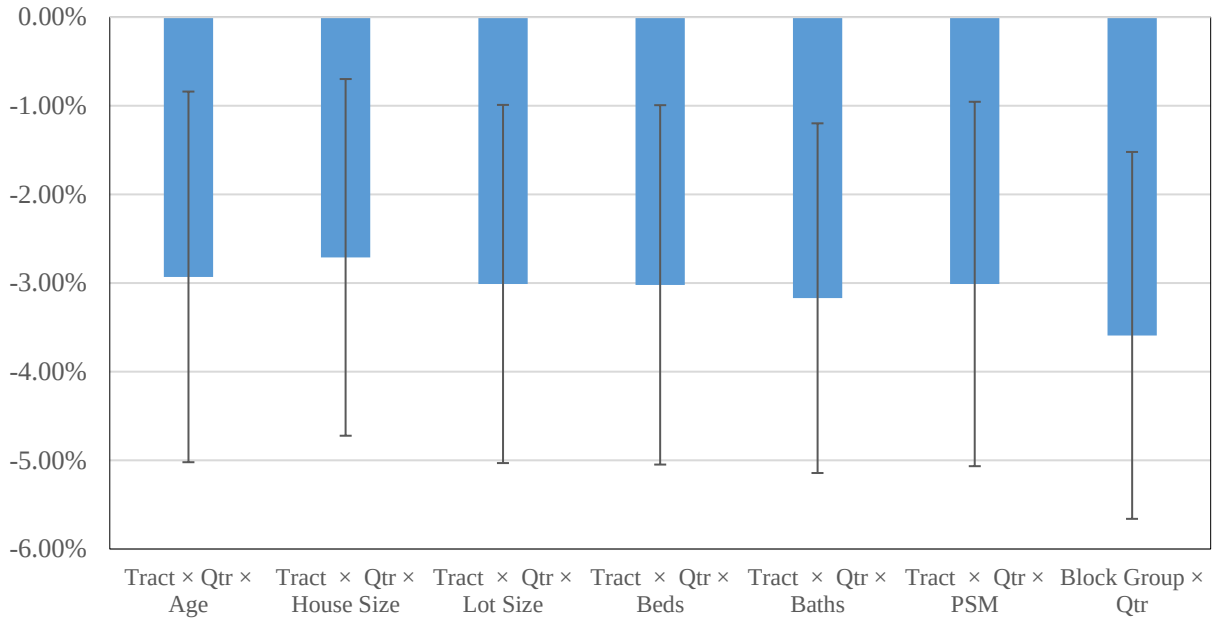

Figure 2. House Values and Confederate Street Names – Alternative Fixed Effects.
This figure explores the sensitivity of the baseline findings to alternative fixed effect models. For reference, the first model reports the results from the baseline model that includes census tract × quarter × age quintile fixed effects (Specification 4 of Table 5). Models 2- 6 replace age quintile fixed effects with house size quintile fixed effects, lot size quintile fixed effects, fixed effects for the number of bedrooms, fixed effects for the number of bathrooms, and propensity-score matched quintile fixed effects. In Model 7, we include block group × quarter fixed effects. The coefficients on *Confederate* are reported as blue bars and their 95% confidence intervals as error bars. The confidence intervals are computed based on standard errors clustered at the census tract level.

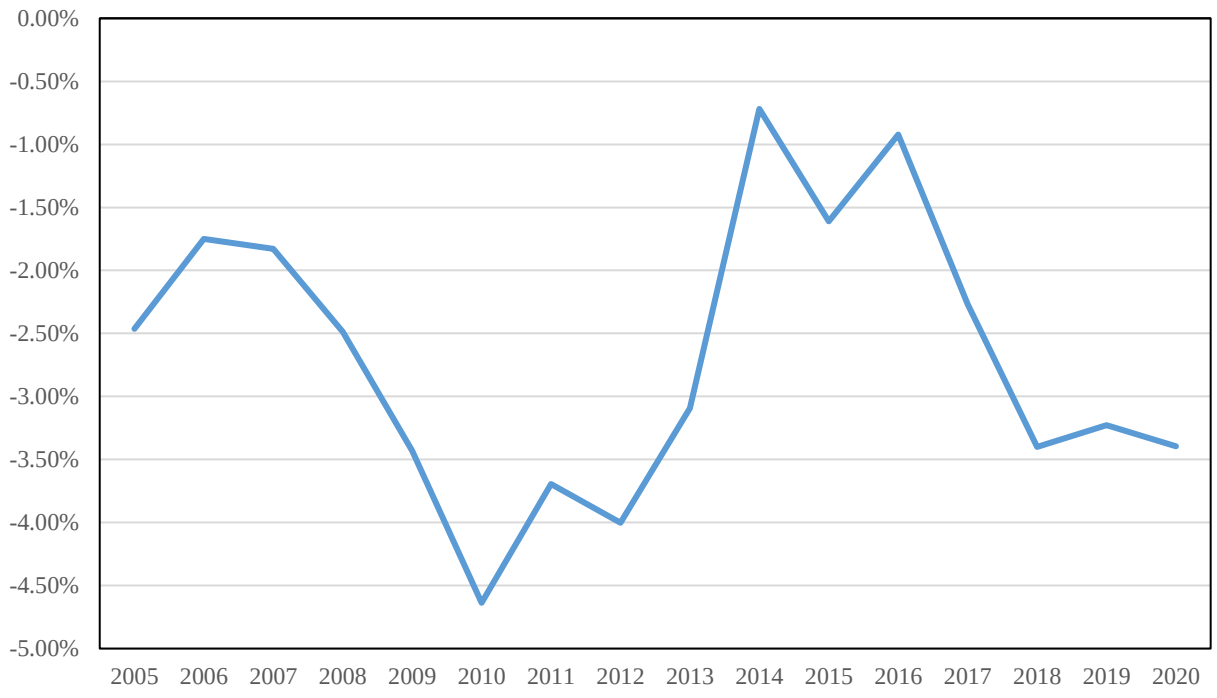

Figure 3. House Values and Confederate Street Names over Time

This figure plots the estimates on *Confederate* (i.e., the Confederate discount) from Specification 4 of Table 5 over 5-year rolling windows.

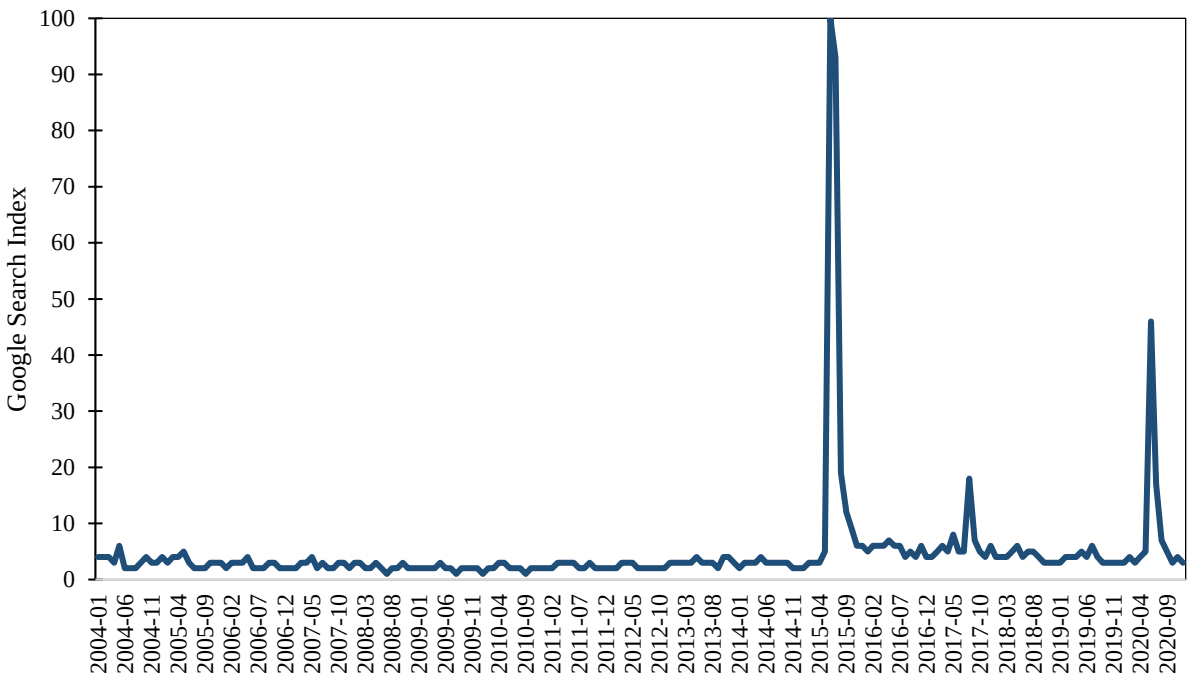

Figure 4. "Confederate Flag" Google Trend Search

The figure plots the Google Search Index for "Confederate Flag." The month with the highest search is benchmarked at 100.

Table 1. Residential Sorting on Confederate Properties

This table reports estimates from the following linear probability model:

$$Confederate_i = \alpha + \beta_1 Var_i + \beta_2 Controls_i + FE + \varepsilon_i.$$

Confederate is an indicator that is equal to one if the house is on a Confederate street and zero otherwise. *Var* is equal to one of four demographic variables: *Race (Black)*, an indicator equal to one if all the owners of the house identify as Black; *Registered Democrat*, an indicator equal to one if all the owners of the house are registered democrats; or *Education (Some College)*, an indicator equal to one if all the owners of the house have at least some college education, or *Demographic Score*, defined as the mean of *Black*, *Democrat*, and *Some College*. *Controls* include indicators for the specific number of bedrooms and bathrooms (up to five), and the natural logs of *Lot Size*, *House Size*, *Home Age*, *Owner Age*, and *Household Income.* Fixed Effects denote census block group fixed effects (Specification 1-6) or census block group × propensity score matched percentile fixed effects. Detailed variable definitions are provided in Appendix A. The *t*-statistics, computed from standard errors clustered at the census block-group level, are reported in parentheses. The sample includes 113,090 properties, of which 1,945 (1.72%) are located on Confederate streets.

	[1]	[2]	[3]	[4]	[5]	[6]	[7]
Black Resident	-0.53%			-0.44%			
	(-2.12)			(-1.75)			
College		-0.35%		-0.36%			
		(-2.75)		(-2.77)			
Democrat			-0.26%	-0.18%			
			(-2.42)	(-1.75)			
Demographic Score					-0.91%	-0.79%	-0.87%
					(-4.15)	(-3.74)	(-4.13)
Log (Income)						-0.15%	0.19%
						(-1.53)	(0.82)
Log (Age)						-0.16%	0.10%
						(-0.87)	(0.39)
Log (House Size)						-0.24%	0.21%
						(-0.86)	(0.52)
Log (Home Age)						0.26%	-0.02%
						(1.52)	(-0.04)
Log (Lot size)						0.33%	-0.23%
						(2.08)	(-0.49)
Bed2						0.87%	-0.20%
						(1.08)	(-0.15)
Bed3						0.69%	-0.13%
						(0.81)	(-0.11)
Bed4						0.60%	-0.17%
						(0.69)	(-0.16)
Bed5						1.10%	-0.21%
						(1.22)	(-0.13)
Bath2						-1.03%	1.35%
						(-2.16)	(0.97)
Bath3						-0.89%	1.13%
						(-1.58)	(0.89)
Bath4						-0.99%	1.03%
						(-1.66)	(0.75)
Bath5						-1.26%	1.41%
						(-1.77)	(0.81)
Block Group FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Block Group × PSM Percentile FE	No	No	No	No	No	No	Yes

Table 2. Residential Sorting on Confederate vs. Confederate Adjacent Streets

This table reports estimates from the following regression:

$$Demographic_i = \alpha + \beta_1 Confed_i + \beta_2 Confed\ Adj_i + Controls + FE_i + \varepsilon_i.$$

Demographic is either *Race* (*Black)*, *Registered Democrat*, or *Education* (*Some College)*. We also consider a composite measure, *Demographic Score*, defined as the mean of the three demographic variables. *Confederate* is defined as in Table 1, and *Confederate Adjacent* is an indicator that is equal to one if the property is located within *x* miles of the closest Confederate property, where we set *x* equal to values ranging from 0.05 miles to 0.50 miles. The controls and fixed effects are identical to Specification 7 of Table 1. The *t*-statistics, computed from standard errors clustered at the census block-group level, are reported in parentheses. Below the regression estimates, we also test whether the *Confederate* and *Confederate Adjacent* coefficients are significantly different from each other.

Panel A: Demographic Score				
	[1]	[2]	[3]	[4]
Confed	-2.52%	-2.54%	-2.60%	-2.53%
	(-3.80)	(-3.77)	(-3.55)	(-3.14)
Confed Adjacent	-0.76%	-0.42%	-0.31%	-0.07%
	(-1.15)	(-0.98)	(-0.64)	(-0.13)
Confed - Adjacent	-1.76%	-2.12%	-2.29%	-2.46%
	(-2.33)	(-3.33)	(-3.70)	(-3.98)
Adjacent Distance (*miles*)	<0.05	<0.10	<0.25	<0.50
Controls & Fixed Effects	Yes	Yes	Yes	Yes
Panel B: Race (Black)				
	[1]	[2]	[3]	[4]
Confed	-1.86%	-1.90%	-1.80%	-1.95%
	(-1.97)	(-1.96)	(-1.63)	(-1.56)
Confed Adjacent	-0.20%	-0.42%	0.15%	-0.17%
	(-0.22)	(-0.58)	(0.18)	(-0.19)
Confed - Adjacent	-1.66%	-1.48%	-1.95%	-1.78%
	(-1.78)	(-1.81)	(-2.48)	(-2.14)
Adjacent Distance (*miles*)	<0.05	<0.10	<0.25	<0.50
Controls & Fixed Effects	Yes	Yes	Yes	Yes
Panel C: Education (Some College)				
	[1]	[2]	[3]	[4]
Confed	-2.89%	-2.96%	-3.36%	-3.01%
	(-2.27)	(-2.29)	(-2.61)	(-2.23)
Confed Adjacent	-1.51%	-0.81%	-1.51%	-0.32%
	(-1.29)	(-1.22)	(-3.11)	(-0.67)
Confed - Adjacent	-1.38%	-2.15%	-1.85%	-2.69%
	(-0.83)	(-1.56)	(-1.42)	(-2.12)
Adjacent Distance (*miles*)	<0.05	<0.10	<0.25	<0.50
Controls & Fixed Effects	Yes	Yes	Yes	Yes
Panel D: Democrat				
	[1]	[2]	[3]	[4]
Confed	-2.81%	-2.79%	-2.63%	-2.62%
	(-2.85)	(-2.80)	(-2.50)	(-2.32)
Confed Adjacent	-0.54%	-0.04%	0.43%	0.28%
	(-0.45)	(-0.06)	(0.67)	(0.45)
Confed - Adjacent	-2.27%	-2.75%	-3.06%	-2.90%
	(-1.64)	(-2.56)	(-3.14)	(-3.07)
Adjacent Distance (*miles*)	<0.05	<0.10	<0.25	<0.50
Controls & Fixed Effects	Yes	Yes	Yes	Yes

Table 3. Confederate House Properties: Descriptive Statistics

This table reports descriptive statistics for sample of Confederate and control house sales. We identify sales of houses that are located on Confederate memorial streets over the 2001-2020 sample period using data from ATTOM. We select corresponding control sales that occurred in the same calendar quarter within the same census tract. Panel A reports distinct number of transactions, houses, and regional districts in the sample for Confederate and control sales. Panel B reports descriptive statistics of house characteristics, and Panel C reports the correlations across the house characteristics, where the continuous house characteristics (*Price*, *House Size*, *Age*, and *Lot Size*) are analyzed after taking natural logs. Variable definitions are provided in Appendix A.

Panel A: Sample Size

	Transactions	Houses	Streets	Block Groups	Tracts	Counties	States
Confederate	5,895	4,052	1,446	698	574	254	35
Controls	80,304	70,040	32,657	1,682	574	254	35

Panel B: Distribution of House Characteristics

	N	Mean	Std. Dev.	Skewness	p25	Median	p75
Confederate	86,199	0.07	0.25	3.42	0.00	0.00	0.00
Price	86,199	$241,911	$268,160	$8	$119,500	$180,000	$280,000
House Size	86,199	1767	847	4	1223	1570	2105
Bedrooms	86,199	3.1	0.8	0.7	3.0	3.0	3.0
Bathrooms	86,199	2.2	0.9	0.9	2.0	2.0	3.0
Age (years)	86,199	31.0	25.7	0.8	10.0	25.0	50.0
Lot Size	86,199	17,146	25,218	6	6,761	10,000	16,160

Panel C: Correlation Matrix

	Confederate	*Price*	*House Size*	*Bedrooms*	*Bathrooms*	*Age*	*Lot Size*
Confederate	1.00	-0.06	-0.05	-0.04	-0.05	0.11	0.03
Price		1.00	0.60	0.37	0.57	-0.24	0.14
House Size			1.00	0.61	0.72	-0.33	0.34
Bedrooms				1.00	0.57	-0.23	0.21
Bathrooms					1.00	-0.38	0.15
Age						1.00	0.07
Lot Size							1.00

Table 4. Difference in House Characteristics of Confederate and Control Houses

This table compares the house attributes of Confederate houses and control houses from the same census tract that sold in the same calendar quarter. Column 1 reports the mean difference between Confederate properties and non-Confederate properties prior to including any controls or fixed effects. Column 3 presents mean difference after controlling for other house attributes and benchmarking Confederate transactions to other transactions that occurred in the same census tract and calendar quarter. Specifically, for each house characteristics, we report the estimate of β from the following regression model:

$$Char_{it} = \beta\ Confederate_{it} + \gamma X_{it} + FE + \epsilon_{it},$$

where $Char_{it}$ is house characteristics of house *i* in quarter *t*, $Confederate_{it}$ is an indicator variable that takes the value of 1 if house *i* is located on a Confederate street, and 0 otherwise, X includes all the house characteristics (*House Size*, *Lot Size*, *# Bedrooms*, *# Bathrooms*, *Age*) excluding the characteristic that is the dependent variable, and FE denotes census tract × quarter fixed effects. Column 5 is similar to Column 3 except that it replaces Census Tract × Quarter Fixed Effects with Census Tract × Quarter × Age Quintile Fixed Effects. Columns 2, 4, and 6 report the *t*-statistic testing whether the difference reported in the previous column is different from zero. The *t*-statistics are computed from standard errors clustered at the census tract level.

	No Controls		Tract × Qtr. FE & Controls		Tract × Qtr. × Age FE & Controls	
	Difference	*t*-stat	Difference	*t*-stat	Difference	*t*-stat
	[1]	[2]	[3]	[4]	[5]	[6]
Log (House Size)	-7.21%	(-3.59)	-1.44%	(-1.87)	-0.45%	(-0.63)
Log (Lot Size)	11.17%	(1.96)	4.42%	(1.67)	4.20%	(1.78)
# Bedrooms	-0.116	(-3.75)	-0.012	(-0.62)	-0.026	(-1.27)
# Bathrooms	-0.190	(-4.10)	-0.008	(-0.72)	-0.008	(-0.62)
Log (Age)	56.32%	(4.83)	8.52%	(2.41)	1.50%	(1.47)

Table 5. House Values and Confederate Street Names

This table reports the pricing effect of houses located on Confederate memorial streets. Specifically, it reports estimate for the following regression specification:

$$\log(Price)_{it} = \beta\ Confederate_{it} + \gamma X_{it} + FE + \epsilon_{it},$$

where $Price_{it}$ is sale price, and $Confederate_{it}$ is an indicator variable that takes the value of 1 if the house is located on a Confederate street, and 0 otherwise, X_{it} is a vector of house attributes that includes indicators for the specific number of bedrooms and bathrooms, and the natural logs of *Lot Size*, *House Size*, and *Age*, and FE denotes various fixed effects that we introduce across the models including indicators for the quarter in which the property sold (*Qtr.*), the census tract where the property sold (*Tract*), the interaction of tract and quarter (*Tract* × *Qtr.)*, and the interaction of tract, quarter, and the quintile ranking of the house's age relative to all other houses that in sold in the same census tract quarter (Tract × Qtr. × Age). More detailed variable definitions are provided in Appendix A. The *t*-statistics, computed from standard errors clustered at the census tract level, are reported in parentheses.

	[1]	[2]	[3]	[4]
Confederate	-4.70%	-3.97%	-4.21%	-2.93%
	(-2.22)	(-3.57)	(-3.84)	(-2.76)
Log (House Size)	84.09%	58.95%	59.30%	57.90%
	(13.20)	(32.13)	(35.22)	(31.00)
Log (Age)	1.34%	-5.69%	-6.31%	-7.19%
	(0.70)	(-5.85)	(-7.94)	(-8.34)
Log (Lot Size)	-4.99%	9.92%	10.32%	10.34%
	(-2.14)	(12.53)	(13.29)	(12.38)
Bed2	-6.27%	3.86%	1.52%	2.51%
	(-0.67)	(1.59)	(0.62)	(1.07)
Bed3	-16.63%	7.22%	4.44%	4.35%
	(-1.61)	(2.69)	(1.67)	(1.72)
Bed4	-17.16%	6.53%	3.71%	4.05%
	(-1.58)	(2.44)	(1.40)	(1.55)
Bed>=5	-18.13%	3.30%	0.65%	2.71%
	(-1.55)	(1.06)	(0.21)	(0.89)
Bath2	31.98%	11.67%	12.45%	8.18%
	(8.75)	(9.99)	(11.51)	(9.43)
Bath3	54.28%	20.83%	20.79%	14.10%
	(10.60)	(13.47)	(14.56)	(11.73)
Bath4	76.13%	31.90%	31.15%	22.94%
	(13.28)	(15.07)	(15.81)	(12.15)
Bath>=5	111.28%	46.30%	44.62%	37.81%
	(12.46)	(15.48)	(15.50)	(12.55)
Fixed Effects	Quarter	Tract and Qtr.	Tract × Qtr.	Tract × Qtr. × Age
Observations	86,199	86,199	86,199	86,199
R-squared	42.57%	76.59%	81.52%	88.06%
FE Groups	80	80 & 497	4,683	21,848

Table 6. Home Values and Street Names – Confederate vs. Confederate Adjacent Properties

This table reports the pricing effect of houses located on Confederate memorial streets and houses adjacent to confederate memorial streets. Specifically, it reports estimate for the following regression specification:

$$\log(Price)_{it} = \beta_1 Confederate_{it} + \beta_2 Confed\ Adj_{it} + \gamma X_{it} + FE + \epsilon_{it}.$$

Confederate Adjacent is an indicator that is equal to one if the property is located within *x* miles of the closest Confederate property, where we set *x* equal to values ranging from 0.05 miles to 0.50 miles. All other variables are defined as in Table 5, and FE denotes census tract × quarter × age quintile fixed effects. Panel A reports the results for the full sample of transactions, and Panel B reports the results for the subsample of transactions for properties in Florida. More detailed variable definitions are provided in Appendix A. The *t*-statistics, computed from standard errors clustered at the census tract level, are reported in parentheses. Below the regression estimates, we also test whether the *Confederate* and *Confederate Adjacent* coefficients are significantly different from each other.

Panel A: Full Sample (All States)				
	[1]	[2]	[3]	[4]
Confed	-2.91%	-3.06%	-3.15%	-3.09%
	(-2.73)	(-2.79)	(-2.74)	(-2.61)
Confed Adjacent	1.98%	-1.81%	-0.91%	-0.35%
	(1.05)	(-1.43)	(-1.12)	(-0.51)
Confed - Confed Adjacent	-4.89%	-1.25%	-2.24%	-2.74%
	(-2.39)	(0.98)	(-2.26)	(-2.68)
Controls & Fixed Effects	Tract × Quarter × Age Fixed FE and Controls as in Table 5			
Adjacent Distance *(miles)*	<0.05	<0.10	<0.25	<0.50
Confed Adjacent Obs.	305	1,880	9,345	24,532
Total Observations	86,199	86,199	86,199	86,199
Panel B: Florida Sample				
	[1]	[2]	[3]	[4]
Confed	-4.51%	-4.59%	-4.33%	-4.09%
	(-1.87)	(-1.84)	(-1.65)	(-1.54)
Confed Adjacent	3.11%	-0.33%	0.96%	1.12%
	(0.75)	(-0.14)	(0.69)	(0.98)
Confed - Confed Adjacent	-7.62%	-4.27%	-5.30%	-5.22%
	(-1.72)	(-2.03)	(-2.65)	(-2.38)
Controls & Fixed Effects	Tract × Quarter × Age Fixed FE and Controls as in Table 5			
Adjacent Distance *(miles)*	<0.05	<0.10	<0.25	<0.50
Confed Adjacent Obs.	73	406	1,821	4,068
Total Observations	20,709	20,709	20,709	20,709

Table 7. Listing Outcomes for Confederate Street Names

This table reports other housing market outcomes for houses located on Confederate street memorials. Specifically, it reports estimates from the following regression:

$$Y_{it} = \beta\ Confederate_{it} + \gamma X_{it} + FE + \epsilon_{it},$$

where *Y* is equal to *Withdrawn*, an indicator that is equal to one if the house listing is subsequently withdrawn without selling; *Slow Sale*, an indicator that is one if the difference between the selling date (or withdrawal date) and the listing date is in the top quintile; or *Large Discount*, an indicator that is one if *log (Listing Price /End Price)* is in the top quintile of the distribution, where end price is defined as either the sales prices or the listing price on the date the property is withdrawn. X_{it} includes the vector of house attributes in Table 5 plus the natural log of the initial listing price. FE denotes census tract × quarter fixed effects. Detailed variable definitions are provided in Appendix A. The *t*-statistics, computed from standard errors clustered at the census tract level, are reported in parentheses.

	Withdrawn	Slow Sale	Discount	Withdrawn	Slow Sale	Discount
	[1]	[2]	[3]	[4]	[5]	[6]
Confederate	1.11%	1.72%	2.01%	1.27%	1.23%	1.86%
	(1.61)	(2.19)	(2.39)	(1.84)	(1.68)	(2.34)
Log (House Size)	2.85%	8.47%	2.53%	2.88%	7.78%	1.30%
	(2.40)	(3.96)	(1.47)	(2.41)	(3.98)	(0.86)
Log (Age)	-0.10%	2.08%	5.72%	0.43%	0.86%	5.27%
	(-0.20)	(2.77)	(8.22)	(0.83)	(1.23)	(7.86)
Log (Lot Size)	0.41%	-0.82%	-0.21%	0.41%	-0.79%	0.04%
	(0.96)	(-1.06)	(-0.35)	(0.98)	(-1.04)	(0.06)
Bed2	4.47%	-1.26%	-3.70%	4.12%	-0.69%	-2.60%
	(2.23)	(-0.36)	(-0.90)	(2.06)	(-0.19)	(-0.61)
Bed3	2.15%	-3.10%	-5.99%	1.62%	-1.92%	-4.94%
	(1.04)	(-0.90)	(-1.48)	(0.80)	(-0.53)	(-1.20)
Bed4	2.08%	-3.45%	-5.27%	1.64%	-2.42%	-4.16%
	(0.96)	(-0.99)	(-1.25)	(0.77)	(-0.67)	(-0.98)
Bed5	1.69%	-4.33%	-3.03%	1.50%	-3.76%	-1.81%
	(0.72)	(-1.15)	(-0.65)	(0.66)	(-0.98)	(-0.39)
Bath2	-1.26%	-3.62%	-4.77%	-1.65%	-2.53%	-4.25%
	(-1.75)	(-3.99)	(-4.52)	(-2.29)	(-2.84)	(-4.12)
Bath3	-1.84%	-3.75%	-4.89%	-2.24%	-2.60%	-4.45%
	(-1.98)	(-2.83)	(-3.68)	(-2.42)	(-2.04)	(-3.54)
Bath4	-0.58%	-3.56%	-2.08%	-0.69%	-3.09%	-1.44%
	(-0.40)	(-2.01)	(-1.04)	(-0.48)	(-1.92)	(-0.79)
Bath5	-0.32%	5.33%	6.04%	0.15%	4.05%	4.87%
	(-0.16)	(1.60)	(1.83)	(0.08)	(1.30)	(1.63)
Log (List Price)	-0.20%	7.53%	5.79%	0.19%	6.30%	4.18%
	(-0.16)	(5.07)	(4.83)	(0.16)	(4.70)	(3.58)
Withdrawn					5.09%	-18.67%
					(3.76)	(-10.68)
Slow Sale				2.70%		20.80%
				(3.73)		(14.31)
Large Discount				-10.24%	21.53%	
				(-12.52)	(16.10)	
Fixed Effects	Tract × Qtr.	Tract × Qtr.	Tract × Qtr.	Tract × Qtr.	Tract × Qtr.	Tract × Qtr.
Observations	20,363	20,363	20,363	20,363	20,363	20,363
R-squared	21.11%	26.34%	26.42%	22.63%	29.64%	30.97%

Table 8. House Value and Confederate Street Names - The Role of Regional Demographics

This table reports Confederate discounts conditional on regional demographics. We repeat Specification 4 of Table 5 after partitioning *Confederate* into *Confederate Low* and *Confederate High* based on different regional demographics. The low demographic group is defined as: counties with a smaller Black population (Specification 1), fewer democratic voters (Specification 2), a smaller fraction of college educated individuals (Specification 3), the 11 states that belonged to the Confederacy (Specification 4), or the five states with the largest number of Confederate statues (Specification 5), *High Demographic* refers to regions with high demographic levels for each specification. Specification 6 considers a composite measure computed as: *High Black Population + High Democrat + High College + Non-Top5 Statues*). *Low (High)* composite is an indicator equal to one if the composite score is less than (greater than) the median value of 2, and *Mid Composite* is an indicator equal to one if the composite score equals 2. Below the regression estimates, we also test whether the *High Demographic* and *Low Demographic* coefficients are significantly different from each other. Detailed variable definitions are provided in Appendix A. The *t*-statistics, computed from standard errors clustered at the census tract level, are reported in parentheses.

	[1]	[2]	[3]	[4]	[5]	[6]
Confed Low	-1.98%	-0.93%	-2.68%	-1.93%	0.64%	1.58%
	(-1.48)	(-0.64)	(-1.80)	(-1.36)	(0.35)	(0.87)
Confed High (Black)	-3.64%					
	(-2.48)					
Confed High (Democrat)		-4.61%				
		(-3.17)				
Confed High (College)			-3.18%			
			(-2.29)			
Confed High (Non-Confederate State)				-4.18%		
				(-2.71)		
Confed High (Non-Top5 Statues)					-4.33%	
					(-3.46)	
Confed Mid (Composite)						-2.57%
						(-1.73)
Confed High (Composite)						-5.52%
						(-3.30)
Confed High - Confed Low	-1.66%	-3.68%	-0.50%	-2.25%	-4.97%	-7.11%
	(-0.89)	(-1.83)	(-0.25)	(-1.08)	(-2.24)	(-2.88)
Observations	86,186	86,186	86,186	86,186	86,186	86,186
R-squared	88.05%	88.06%	88.05%	88.06%	88.05%	88.06%
Controls & Fixed Effects	Specification 4 of Table 5					

Table 9. House Values and Confederate Street Names – Shocks to Saliency

This table reports the house pricing effects of Confederate memorial streets following salient events that increased awareness of racial underpinnings of the Confederate flag. We consider three events that correspond to large spikes in attention to the Confederate flag. The three events correspond with the Charleston church shooting (June of 2015), the Charlottesville "Unite the Right" rally (August 2017), and widespread Black Lives Matter protests (June of 2020). We limit the sample to the [-12, +12] window, where period 0 is the month of the event. In Specification 1, we repeat the estimate of Equation (1) after interacting *Confederate* with *Post*, an indicator equal to one for the post-event window (i.e., months 1 through 12), and zero for the pre-event window. Specification 2 partitions *Confederate* × *Post* into *Confederate* × *PostQ1, Confederate* × *PostQ2, Confederate* × *PostQ3,* and *Confederate* × *PostQ4,* where *Confederate* × *PostQ1* is an indicator equal to one if the transaction occurred in the quarter (i.e., three-months) following the event, and *PostQ2 -PostQ4* are defined analogously. Specification 3 augments Specification 2 by adding an interaction term for the quarter prior to the event (*Confederate* × *Pre Q1),* and Specification 4 decomposes Confederate × *PostQ1* into three separate indicators for each event (*Charleston, Charlottesville*, and *BLM Protests)*. Detailed variable definitions are provided in Appendix A. The *t*-statistics, computed from standard errors clustered at the census tract level, are reported in parentheses.

	[1]	[2]	[3]	[4]
Confederate	-0.49%	-0.50%	-1.15%	-0.55%
	(-0.29)	(-0.30)	(-0.66)	(-0.33)
Confederate × *Post Event*	-4.22%			
	(-1.92)			
Confederate × *Post Q1*		-8.13%	-7.45%	
		(-2.38)	(-2.16)	
Confederate × *Post Q2*		-2.67%	-2.03%	
		(-0.84)	(-0.63)	
Confederate × *Post Q3*		0.53%	1.17%	
		(0.11)	(0.24)	
Confederate × *Post Q4*		-3.58%	-2.39%	
		(-1.09)	(-0.86)	
Confederate × *Pre Q1*			2.64%	
			(0.85)	
Confederate × *Post Q1* × *Charleston*				-8.22%
				(-1.37)
Confederate × *Post Q1* × *Charlottesville*				-11.05%
				(-1.61)
Confederate × *Post Q1* × *BLM Protests*				-7.02%
				(-1.34)
Controls and Fixed Effects	Tract × Quarter × Age Fixed FE and Controls as in Table 5			
Period (in months)	[-12,12]	[-12,12]	[-12,12]	[-12,3]
Observations	31,795	31,795	31,795	21,712
R-squared	87.43%	87.44%	87.44%	88.25%

Table 10. House Values and Confederate School Name Changes

This table reports the pricing effect of Confederate memorial school changes. Specifically, the table reports estimates for the following difference-in-difference regression specification:

$$\log(Price)_{\mathrm{it}} = \beta_1 NameChg_i + \beta_2 NameChg_i \times Post_{it} + \gamma X_{it} + FE + \epsilon_{it},$$

where $NameChg_i$ equals one if house *i* is located in a school district that changed its name from a Confederate name to a non-Confederate name, and $Post_{it}$ equals one if house *i* is sold after the school's name change year, and 0 if it sold prior to the name change year. *X* includes controls for the specific number of bedrooms and bathrooms (up to five), and the natural log of *House Size* and *Age*, and FE denote zip code × quarter fixed effects and block fixed effects. In Specification 2. we replace *Name Change* × *Post* with $NameChange \times Year\ (-2)$, $NameChange \times Year\ (-1)$, $Name\ Change \times Year\ (0)$, $Name\ Change \times Year\ (+1)$, and $Name\ Change \times Year\ (>+1)$, where *Year*(-2), is an indicator equal to one if the transaction occurred two year prior to the name change, and the other event-time indicators are defined analogously. We limit the sample to the [-3,3] window, and Year 0 (the year of the name change) is excluded from the analysis in Specification 1. The *t*-statistics, computed from standard errors clustered at the census tract level, are reported in parentheses.

	[1]	[2]
Name Change	-4.13%	-3.66%
	(-0.65)	(-0.74)
Name Change × Post	5.21%	
	(2.96)	
Name Change × Year (-2)		-1.41%
		(-0.65)
Name Change × Year (-1)		0.38%
		(0.17)
Name Change × Year (0)		3.96%
		(1.88)
Name Change × Year (+1)		3.84%
		(1.71)
Name Change × Year (>+1)		6.25%
		(3.14)
Control variables	Yes	Yes
QTR x ZIP FE	Yes	Yes
Block FE	Yes	Yes
Observations	17,794	21,929
R-squared	80.32%	86.37%

Table 11. House Choices and Confederate Street Names – Descriptive Statistics for the Experimental Sample

The table reports summary statistics for the experimental sample. Column 1 reports the full sample results across all 1000 participants. Columns 2-7 report the results for respondent subsets based on the primary variables of interest. Detailed variable definitions are presented in Appendix A. Panel A reports the fraction of the sample in each category. Panels B and C report the relative frequency of each choice category, where 20% is the null.

	Full Sample	Neg. Confed. Sentiment	Democrats	College Educated	Black	Non-Confed. State	Priming Article
	[1]	[2]	[3]	[4]	[5]	[6]	[7]
Panel A: Demographic Variables							
Observations	1,000	644	544	670	68	676	508
Neg. Confed. Sentiment	64.4%	100.0%	83.3%	66.4%	76.7%	67.6%	67.7%
Positive Confed Sentiment	3.6%	0.0%	1.1%	2.7%	8.8%	3.3%	3.3%
Democrat	54.4%	69.6%	100.0%	58.1%	57.4%	55.6%	53.9%
College Educated	67.0%	69.1%	71.5%	100.0%	63.2%	67.8%	65.6%
Black	6.8%	8.1%	7.2%	6.4%	100.0%	4.4%	6.7%
Non-Confederate State	67.6%	71.0%	69.1%	68.4%	44.1%	100.0%	66.4%
Priming Article	50.80%	53.42%	50.40%	49.70%	50.00%	49.90%	100.0%
Panel B: House Choice							
House #1	23.1%	23.2%	23.0%	23.6%	24.1%	22.8%	22.3%
House #2	21.6%	21.4%	21.8%	22.2%	23.4%	21.9%	22.0%
House #3	20.3%	20.4%	20.9%	20.2%	18.2%	20.4%	20.8%
House #4	18.1%	18.3%	18.4%	17.7%	19.4%	18.1%	17.4%
House #5	16.9%	16.6%	15.9%	16.3%	14.9%	16.8%	17.4%
Panel C: Street Choice							
Dixie	18.9%	18.2%	18.4%	18.7%	20.0%	18.4%	18.7%
Kenwood	20.2%	20.6%	21.1%	20.6%	21.9%	20.1%	20.0%
Gresham	20.0%	20.0%	19.7%	19.7%	21.2%	19.7%	20.3%
Juniper	20.7%	20.9%	20.9%	20.6%	18.2%	21.5%	20.3%
Linden	20.2%	20.4%	19.9%	20.4%	18.7%	20.3%	20.6%

Table 12. House Choices and Confederate Street Names – Experimental Evidence

The table examines whether survey participants are less likely to choose houses on Confederate streets. Specifically, the table reports estimates for variants of the following regression:

$$House\ \#1 = \beta_1 Dixie\ Dif + House\ \#FE_1 + House\ \#FE_2 + \varepsilon_{it}$$

where *House #1*, is an indicator equal to one if the participant reports preferring the first house (i.e., the house presented on the left) to the second house (i.e., the house presented on the right), *Dixie Dif* equals one if the first house is on Dixie Street, negative one if the second house is on Dixie Street, and zero if neither house is on Dixie Street, *House #FE$_1$* are a set of indicator dummies to indicate which house was the first (left) house seen by participants, and *House #FE$_2$* is defined analogously. Specifications 2-7 report results after replacing *Dixie Dif.* with *Dixie Dif. High Aversion* and *Dixie Dif. Low Aversion* where *High Aversion* is measured as either: *Negative Confederate Sentiment (Neg Confed), Democrat, College-Educated*, *Black*, *Non-Confederate State*, or *Priming Article* and *Low Aversion* includes all participants not classified as *High Aversion*. More detailed variable definitions are in Appendix A. The *t*-statistics, computed from standard errors clustered by participant, are reported in parentheses.

	[1]	[2]	[3]	[4]	[5]	[6]	[7]
Intercept	48.90%	48.90%	48.90%	48.91%	48.89%	48.89%	48.88%
	(28.94)	(29.87)	(29.87)	(29.85)	(29.83)	(29.86)	(29.85)
Dixie Dif.	-2.65%						
	(-2.51)						
Dixie Dif. × Neg. Confed		-4.67%					
		(-3.55)					
Dixie Dif. × Non-Neg. Confed		1.01%					
		(0.58)					
Dixie Dif. × Democrat			-4.00%				
			(-2.81)				
Dixie Dif. × Non-Democrat			-1.09%				
			(-0.69)				
Dixie Dif. × College				-3.37%			
				(-2.67)			
Dixie Dif. × No College				-1.19%			
				(-0.62)			
Dixie Dif. × Black					0.96%		
					(0.25)		
Dixie Dif. × Non-Black					-2.91%		
					(-2.66)		
Dixie Dif. × Non-Confed. State						-4.32%	
						(-3.34)	
Dixie Dif. × Confed State						0.85%	
						(0.47)	
Dixie Dif. ×Priming Article							-3.03%
							(-1.98)
Dixie Dif. × No Prime Article							-2.26%
							(-1.55)
Coefficient Difference		-5.68%	-2.91%	-2.17%	3.87%	-5.17%	-0.77%
		(-2.59)	(-1.35)	(-0.95)	(0.95)	(-2.33)	(-0.36)
Observations	10,000	10,000	10,000	10,000	10,000	10,000	10,000
House FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes
R-squared	2.21%	2.34%	2.25%	2.23%	2.23%	2.32%	2.22%

Internet Appendix for:
Confederate Memorials and the Housing Market

In this appendix, we discuss and tabulate results from select robustness tests referenced in the paper (Sections IA.1 – IA.4), and we describe additional details of the survey design (Section IA.5).

IA.1 Residential Sorting – Descriptive Statistics and Robustness

Table IA1 provides additional descriptive statistics on the merged L2-ATTOM dataset used in the residential sorting tests in Tables 1 and 2 of the paper. The final sample includes 1,943 Confederate properties and 111,147 control properties across 248 census block group that include at least one Confederate property. We find that the average control property (i.e., non-Confederate homes in the same census block) is 1.69 miles away from Confederate streets, with 32% of all control properties being located within a half-mile of a Confederate street.

Table 1 of the paper shows that houses on Confederate streets are less likely to be owned by Black residents, registered Democrats, and individuals with a college education. In Table IA2, we examine whether these results extend to *Confederate Adjacent* properties. Specifically, we re-estimate Specification 7 of Table 1 after replacing *Confederate* with *Confederate Adjacent*. *Confederate Adjacent* is an indicator that is equal to one if the property is located within *x* miles of the closest Confederate property, where we set *x* equal to values ranging from 0.05 miles to 0.50 miles. Thus, the objectives of this analysis mirror the analysis reported in Table 2 (based on Equation (2)), but the empirical test is more closely aligned to the baseline test in Table 1.[44]

Table IA2 reports the results of this analysis. For reference, Specification 1 reports the baseline results (i.e., Specification 7 of Table 1) where the dependent variable is Confederate. In

[44] Despite this advantage, we prefer the empirical design reported in Table 2 because it allows for a formal test of the difference between the coefficients on *Confederate* and *Confederate Adjacent.*

Specification 2, we define *Confederate Adjacent* properties as those properties located within 0.05 miles of a Confederate property. We find the coefficient on *Demographic Score* is statistically insignificant. The estimated percentage effects (i.e., the coefficient estimates scaled by the mean of the dependent variable) is also only -6.37%, which is roughly one-eighth of the estimated effect in the baseline model (-50.86%). The results are qualitatively similar if we define *Confederate Adjacent* properties as properties located within 0.10, 0.25, or 0.50 miles from a Confederate property. These findings mirror the results from Table 2 of the paper, and they further suggest that the observed residential sorting for houses on Confederate streets does not spillover to adjacent properties.

IA.2 Confederate House Prices and Market Liquidity

Both survey evidence and the residential sorting results (see Section 2) suggest that there is considerable heterogeneity in how individuals perceive Confederate street names. We expect that the impact of heterogeneous preferences on prices should be more pronounced when markets are more illiquid (Piazzesi, Schneider, and Stroebel, 2020). For example, consider a highly illiquid market where there is only one prospective house buyer and many prospective sellers. If the one prospective buyer dislikes *Confederate* streets, then the Confederate property will only be sold if the seller offers a significant discount. On the other hand, in highly liquid (or "hot") markets where the number of prospective buyers exceeds the supply of houses, it is more likely that a house will receive multiple offers. In this case, the winning bid for a Confederate property is less likely to be from an individual who dislikes Confederate streets, and thus, the magnitude of the Confederate discount should be considerably smaller.

We measure market liquidity using the county-level price growth during the previous quarter as reported by Zillow Home Value Index (ZHVI). We define a market as "*Liquid*" if it is

in the top quintile of price growth. We also define a market as "*Very Liquid*" if it is in the top 5% of the distribution of price growth. We then estimate Specification 4 of Table 5 for *Less Liquid* markets (the bottom four quintiles), *Liquid* markets, and *Very Liquid* markets.

Table IA3 reports the results. Consistent with our conjecture, the Confederate discount is large in *Less Liquid* markets (-3.49%) and non-existent in *Liquid* markets (0.12%) or *Very Liquid* markets (-0.30%). Similarly, we expect that the cross-sectional differences documented in Table 8 will be attenuated in more liquid markets. To test this prediction, we repeat Specifications 1-3 of Table IA3 after interacting *Confederate* with *High Composite*, as defined in Table 8. The results of these analyses, reported in Specifications 4-6 of Table IA3, are consistent with this prediction. In particular, the incremental effect of *High Composite* is strongest in less liquid markets (-7.46%) and weakest in *Very Liquid* markets (-0.11%).

IA.3 Other Housing Market Outcomes – Descriptive Statistics and Robustness

Table IA4 provides summary statistics (similar to Table 3) for the merged Zillow-ATTOM sample used to examine the other housing market outcomes in Table 7. Our final sample includes 2,619 listings of Confederate properties and 17,744 non-Confederate properties that were listed in the same census tract and quarter. We find that the median *End Price* and *Listing Price* are $190,000 and $199,999, which is similar to the median sale prices reported for the full sample in Table 3 ($180,000). The average value of *Withdrawn* is 8.42%. Although the average values of *Slow Sale* and *Large Discount* are approximately 20% by construction, the top quintile of *Slow Sale* corresponds to properties that do not sell within (roughly) six months of the listing date, while the top quintile of *Discount* corresponds to discounts of 10% or larger.

As discussed in the paper, due to the more limited sample of properties with listing data (roughly half the size of the sale sample), we are not able not include census tract × listing quarter

× age quintile fixed effects. In the body of the paper (Table 7), we report the results using census tract × listing quarter fixed effects. To alleviate the concern that the value of older homes may vary significantly across census tract, we next repeat Table 7 after including both census tract × listing quarter fixed effects and census tract × age quintile fixed effects. The results of this analysis, reported in Table IA5, are qualitatively similar to the baseline results reported in Table 7.

IA.4 Confederate Discount by Calendar Month

In Section 5.6 of the paper, we document that the Confederate discount increases following events that result in increased attention to the racial underpinning of the Confederate symbols, with the effects being particularly pronounced in the quarter following the event. The three events we explore (*Charleston*, *Charlottesville*, and *BLM Protests*) all occur in the summer (two in June and one in August), raising the concern that our findings might be driven by seasonality in the Confederate discount. To explore whether seasonality in the Confederate discount could contribute to our findings, we first repeat our baseline regression (Specification 4 of Table 5) after replacing *Confederat*e with *Confederate* interacted with each of the 12 calendar months. For example, *Confederate* × *January* estimates the magnitude of the Confederate discount for all Confederate transactions that took place during the month of January. To ensure that the seasonality estimates are not biased by the attention-grabbing events studied in Section 5.6, this analysis excludes the quarter immediately following the three attention-grabbing events. Finally, to reduce noise, and more closely parallel the quarterly analysis in the event-time tests, we define *Quarterly Average* as the average estimate across the subsequent quarter (i.e., month *t+1*, month *t+2*, and month *t+3*). Thus, if seasonality contributes to our event-time findings in Table 8, we should observe particularly large discounts in June and August.

Figure IA2 plots the *Quarterly Averages* separately for each calendar month. We do not observe dramatic differences across the estimates, with values ranging from -1.99% (July) to -4.22% (April). We note that the estimates for June (-2.83%) and August (-2.57%) are both slightly smaller than the full-sample estimate (-2.93%). Overall, we conclude that seasonality in the Confederate discount is unlikely to drive the large discount of -8.13% that we observe in the quarter following the salient racial events.

IA.5 Additional Experimental Details

IA.5.1 Priming and Non-Priming Articles

Half of respondents will be asked to summarize the following article as follows:

> **Please read the following article and summarize it with one or two sentences:**
>
> Republican South Carolina Governor Nikki Haley signed into law a measure to remove the Confederate battle flag from the state Capitol, the result of a years-long movement that was reignited by the murders of nine members of a historically Black church in Charleston.
>
> Before adding her signature to the legislation, Haley spoke of the Black victims, who were killed by a white man after they welcomed him into a prayer meeting.
>
> In the days after the shootings, photos emerged of the killer posing with the Confederate flag, a Civil War relic that is also seen as an emblem of racism. That sparked a nationwide debate about the flag's place in American culture. Many businesses stopped making and selling the flag and its images, and public officials discussed removing the flag from public grounds. That included South Carolina, which first flew the Confederate flag at Capitol in Columbia in 1962 as a response to the civil rights movement.
>
> The state legislature, which lost state Senator Clementa Pinckney, the church's top pastor, in the shooting, responded by voting overwhelmingly this week to take the flag down.
>
> Republican Senator Lindsey Graham of South Carolina praised the flag's removal. "After the horrific tragedy in Charleston, our state could have gone down one of two paths, division or reconciliation," Graham said. "I am thankful we chose the path of reconciliation."
>
> Please write one or two sentences to summarize the article.

The other half of respondents will receive the following control article:

> **Please read the following article and summarize it with one or two sentences:**
>
> Legislators introduced a bipartisan bill aimed at protecting children from the harmful impacts of social media.
>
> The bill, sponsored by Republican Senator Marsha Blackburn and Democratic Senator Richard Blumenthal, came as Congress held hearings on the dangers of social media for children and teens. The proposed Kids Online Safety Act includes three key elements:
>
> Social media companies would be required to provide the ability to disable addictive features and allow users to opt-out of recommendations like pages or other videos to "like." It would also make the strongest privacy protections the default.
>
> The bill would give parents tools to track time spent in the app, limit purchases and help to address addictive usage.
>
> It would require social media companies to prevent and mitigate harm to minors, including self-harm, suicide, eating disorders, substance abuse, sexual exploitation and unlawful products for minors, like alcohol.
>
> Dr. Dave Anderson, clinical psychologist at the Child Mind Institute, said the bill marks the sensible intersection of tech and public policy. "I think politicians are taking what we know from the science and saying, 'How do we build in these safeguards?'" Anderson said.
>
> He said social media algorithms have evolved to show children only more of what they are interested in rather than a variety of viewpoints and that marks a dangerous change for children with mental health issues.
>
> Please write one or two sentences to summarize the article**.**

IA.5.2 House Comparisons

In the following pages we present the questions from one of the 20 blocks of 10 pairwise comparisons (the five houses and five house names are presented in alternative combinations and positions in the remaining 19 blocks seen by other participants). Participants begin with the following instruction page.

> For the next set of questions, imagine you are moving to a new town and are looking for a home.
>
> In the 10 comparison questions that follow, each of the hypothetical houses is located in the same neighborhood, was built around the same time, and is very similar in size (same number of bedrooms and bathrooms).

For each pair of houses that you are presented, where would you prefer to live for your family home?

The "next" arrow will appear at the bottom of the page after ten seconds (you must spend at least 10 seconds for each comparison, more time is fine).

Click the arrow to begin.

1 of 10

Which house would you prefer to live in?

612 Kenwood Ave.

592 Linden Ave.

2 of 10

Which house would you prefer to live in?

481 Gresham St.

423 Dixie Ave.

3 of 10

Which house would you prefer to live in?

353 Juniper Rd. 612 Kenwood Ave.

353 Juniper Rd.

612 Kenwood Ave.

4 of 10

Which house would you prefer to live in?

592 Linden Ave. 423 Dixie Ave.

592 Linden Ave.

423 Dixie Ave.

5 of 10

Which house would you prefer to live in?

353 Juniper Rd. 481 Gresham St.

353 Juniper Rd.

481 Gresham St.

6 of 10

Which house would you prefer to live in?

423 Dixie Ave. 612 Kenwood Ave.

423 Dixie Ave.

612 Kenwood Ave.

7 of 10

Which house would you prefer to live in?

481 Gresham St.

592 Linden Ave.

8 of 10

Which house would you prefer to live in?

423 Dixie Ave.

353 Juniper Rd.

9 of 10

Which house would you prefer to live in?

612 Kenwood Ave. 481 Gresham St.

612 Kenwood Ave.

481 Gresham St.

10 of 10

Which house would you prefer to live in?

592 Linden Ave.

353 Juniper Rd.

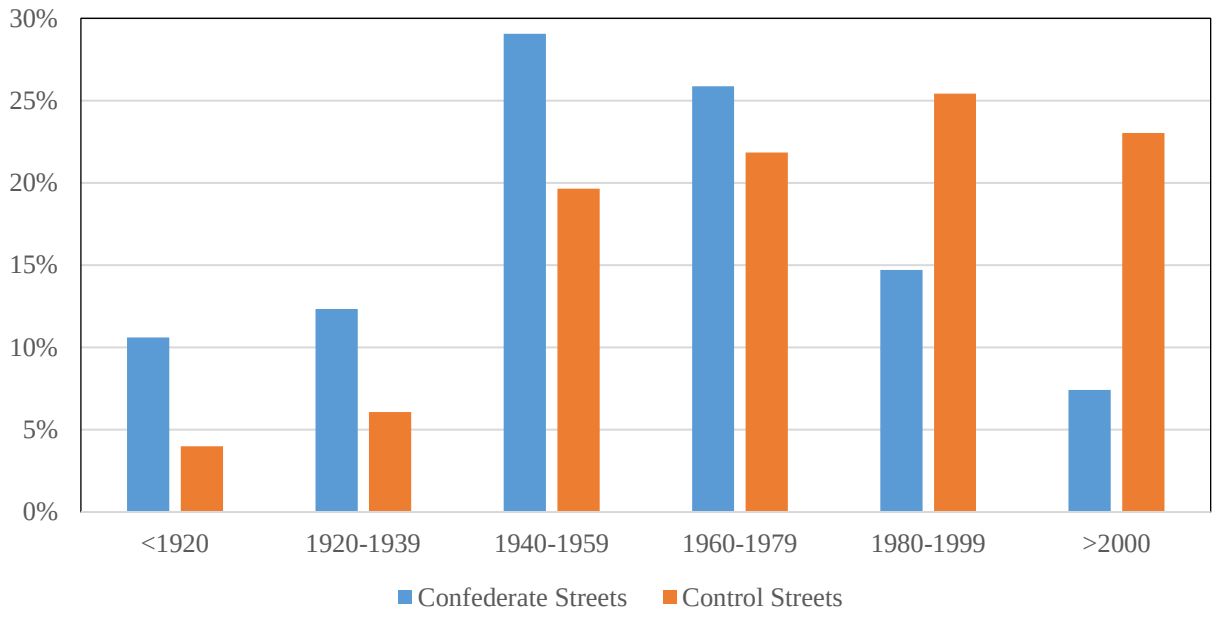

Figure IA1. Distribution of Confederate and Control Street Age

This figure plots the distribution of the age of Confederate and control streets, where street age is measured by the oldest house on the street. The blue bars report the percentage of all Confederate streets that were named during a specific time period, and the orange bars report analogous percent for control streets.

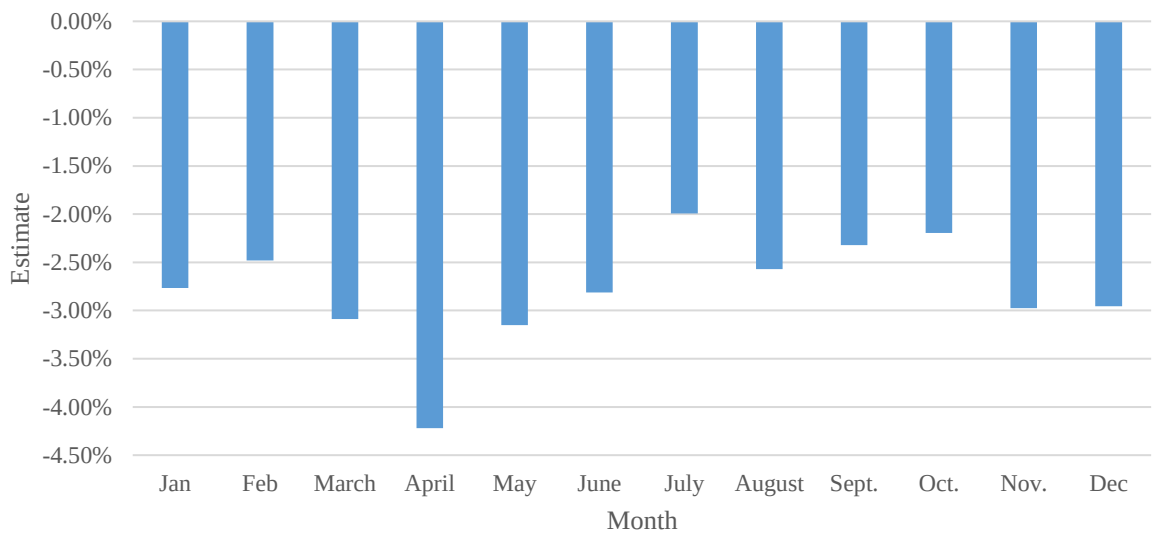

Figure IA2. Confederate Discount by Calendar Month

This table explores seasonality in the Confederate discount. We repeat the baseline regression (Specification 4 of Table 5) after replacing *Confederate* with *Confederate* interacted with each of the 12 calendar months. To parallel the quarterly analysis in the event-time tests, for each calendar month we report the quarterly average, defined as the average estimate across the subsequent quarter (i.e., month *t+1*, *t+2*, and *t+3*). The analysis excludes the quarter immediately following the three attention-grabbing events studied in Table 8.

Table IA1. L2 Dataset - Descriptive Statistics

This table reports descriptive statistics for the sample of Confederate and control houses provided by L2 data. The sample includes all Confederate houses in the state of Florida, and control properties, defined as houses in the same census block group. Panel A reports distinct number of houses, and regional districts for the tests reported in Tables 1 and 2 of the paper. Panel B reports pooled descriptive statistics for the owners of the house and house attributes collected from ATTOM assessor data, and Panel C reports descriptive statistics on the distance between Confederate and Control Houses. Variable definitions are provided in Appendix A.

Panel A: Sample Size

	Total Homes	Unique Blocks-Groups	Unique Tracts	Unique Counties	
Confederate	1,943	248	199	41	
Control Houses	111,147	248	199	41	

Panel B: Distribution of Variables

Variables	Mean	Std. Dev.	p25	Median	p75
Confederate	1.72%	13.00%	0.00%	0.00%	0.00%
Black	9.42%	29.21%	0.00%	0.00%	0.00%
College	62.60%	48.39%	0.00%	100.00%	100.00%
Democrat	22.09%	41.45%	0.00%	0.00%	0.00%
Income	$88,785	$58,690	$48,041	$72,000	$114,000
Buyer Age	60.97	16.12	50.00	63.00	73.00
House Size	2,240	1,092	1,500	2,000	2,700
Bedrooms	3.09	0.79	3.00	3.00	3.00
Bathrooms	2.24	0.58	2.00	2.00	3.00
Home Age (years)	33.88	21.16	17.00	30.00	47.00
Lot Size	45,902	113,925	8,000	11,000	26,000

Panel C: Distribution of Distance for Control Houses

Distance	1.69	1.86	0.36	0.95	2.39
Confed_Near5	0.02	0.13	0.00	0.00	0.00
Confed_Near10	0.05	0.22	0.00	0.00	0.00
Confed_Near25	0.17	0.38	0.00	0.00	0.00
Confed_Near50	0.32	0.47	1.00	0.00	0.00

Table IA2. Residential Sorting on Confederate Adjacent Properties

This table reports estimates from regression of Confederate or Confederate Adjacent on demographic variables and controls. Confederate is an indicator that is equal to one if the house is on a Confederate Street and zero otherwise, and Confederate Adjacent is an indicator that is equal to one if the property is located within *x* miles of the closest Confederate property, where we set *x* equal to values ranging from 0.05 miles to 0.50 miles. The demographic variables and controls are defined as in Table 1, and the controls and fixed effects are identical to Specification 7 of Table 1. The *t*-statistics, computed from standard errors clustered at the census block-group level, are reported in parentheses. Below the regression estimates, we also report the estimated percentage effects, defined as the coefficient on Demographic Score scaled by the mean of the dependent variable.

	Confederate	<0.05	<0.10	<0.25	<0.50
Demographic Score	-0.87%	-0.11%	-0.51%	-0.91%	-0.58%
	(-4.13)	(-0.56)	(-1.43)	(-1.06)	(-0.52)
Log (Income)	0.19%	0.06%	0.39%	1.03%	1.94%
	(0.82)	(0.42)	(0.94)	(1.54)	(3.38)
Log (Age)	0.10%	0.12%	0.88%	1.88%	2.53%
	(0.39)	(0.34)	(0.77)	(1.27)	(1.77)
Log (House Size)	0.21%	-0.43%	0.10%	0.06%	2.33%
	(0.52)	(-1.03)	(0.07)	(0.05)	(1.47)
Log (Home Age)	-0.02%	0.08%	-0.37%	-0.78%	-2.06%
	(-0.04)	(0.32)	(-0.51)	(-0.51)	(-1.28)
Log (Lotsize)	-0.23%	-0.20%	0.16%	0.26%	2.87%
	(-0.49)	(-0.65)	(0.23)	(0.16)	(1.54)
Bed2	-0.20%	1.08%	-2.18%	-2.59%	-5.63%
	(-0.15)	(0.93)	(-1.00)	(-0.59)	(-1.75)
Bed3	-0.13%	1.33%	-1.70%	-1.37%	-2.42%
	(-0.11)	(1.12)	(-0.81)	(-0.32)	(-0.77)
Bed4	-0.17%	1.36%	-1.81%	-1.92%	-1.27%
	(-0.16)	(1.13)	(-0.80)	(-0.42)	(-0.37)
Bed5	-0.21%	1.34%	-2.21%	-3.48%	-4.13%
	(-0.13)	(1.09)	(-0.71)	(-0.59)	(-0.92)
Bath2	1.35%	0.19%	0.76%	1.21%	1.33%
	(0.97)	(0.52)	(0.70)	(0.62)	(0.77)
Bath3	1.13%	0.17%	0.67%	1.24%	-0.17%
	(0.89)	(0.45)	(0.67)	(0.65)	(-0.10)
Bath4	1.03%	0.23%	1.31%	3.45%	3.13%
	(0.75)	(0.56)	(1.41)	(1.21)	(1.30)
Bath5	1.41%	0.60%	1.80%	5.60%	8.39%
	(0.81)	(0.95)	(1.40)	(1.54)	(2.44)
Observations	113,090	111,147	111,147	111,147	111,147
Block Group × PSM Percentile Fixed Effects	Yes	Yes	Yes	Yes	Yes
Mean of Dep Var.	1.72%	1.68%	5.28%	17.08%	32.47%
Percentage Estimate					
Demographic	-50.76%	-6.37%	-9.60%	-5.32%	-1.79%

Table IA3. House Values and Confederate Street Names – The Role of Local Housing Market Conditions

This table reports Confederate discounts conditional on local housing market liquidity. Specifications 1-3 repeat Specification 4 of Table 5 after splitting the sample into *less liquid*, *liquid*, and *very liquid* housing markets. We define a property as *Less Liquid* if it located in a county that is in the bottom 80% of the distribution of price growth in the prior quarter, as reported by the Zillow House Value Index (ZVHI), *Liquid* denotes houses sold in the top 20% of the distribution, and *Very Liquid* refers to top 5% of housing markets. Specifications 4-6 augment Specifications 1-3 by including *Confederate* × *High Composite*, where *High Composite* is defined as in Table 8. Below the regression estimates, we also report the estimates on *Confederate* + *Confederate* × *High Composite.* Detailed variable definitions are provided in Appendix A. The *t*-statistics, computed from standard errors clustered at the census tract level, are reported in parentheses.

	Less Liquid (Bottom 80%)	Liquid (Top 20%)	Very Liquid (Top 5%)	*Less Liquid* (Bottom 80%)	Liquid (Top 20%)	Very Liquid (Top 5%)
	[1]	[2]	[3]	[4]	[5]	[6]
Confederate	-3.49%	0.12%	-0.30%	-0.67%	1.71%	-0.27%
	(-3.11)	(0.07)	(-0.09)	(-0.57)	(0.77)	(-0.07)
Confed × High Composite				-7.46%	-3.58%	-0.11%
				(-3.40)	(-1.11)	(-0.01)
Confed + Confed High Comp				-8.12%	-1.87%	-0.38%
				(-4.08)	(-0.74)	(-0.06)
Controls and Fixed Effects	Tract × Quarter × Age Fixed FE and Controls as in Table 5					
Observations	69,247	16,939	4,296	69,247	16,939	4,291
R-squared	87.76%	89.00%	87.93%	87.77%	89.00%	87.93%

Table IA4. Zillow -ATTOM Merged Dataset – Descriptive Statistics

This table reports descriptive statistics for the sample of Confederate and control house sales with housing information from ATTOM and listing information from Zillow. The sample begins in 2009 (the first year for which Zillow provides listing information) and ends in 2020. Panel A reports the distinct number of transactions, houses, and regional districts for the sample that examines the listing outcomes reported in Table 7 of the paper. Panel B reports descriptive statistics of house characteristics, and Panel C reports the correlations across the house characteristics. Variable definitions are provided in Appendix A.

Panel A: Sample Size

	Transactions	Houses	Streets	Block Groups	Tracts	Counties	States
Confederate	2,619	2,334	1,934	439	366	188	30
Control Houses	17,744	16,315	15,445	910	366	188	30

Panel B: Distribution of Housing Characteristics

	N	Mean	Std. Dev.	Skewness	p25	Median	p75
Confederate	20,363	0.13	0.33	2.22	0.00	0.00	0.00
End Price	20,363	$268,550.00	$369,519.00	$8.18	$118,000.00	$190,000.00	$295,000.00
Listing Price	20,363	$291,095.80	$423,708.00	$9.37	$127,000.00	$199,999.00	$310,000.00
Withdrawn	20,363	8.42%	27.78%	3.00%	0.00%	0.00%	0.00%
Slow Sale	20,363	20.00%	39.99%	1.50%	0.00%	0.00%	0.00%
Large Discount	20,363	19.58%	39.68%	1.53%	0.00%	0.00%	0.00%
Age	20,363	35.59	24.35	0.72	14.00	30.00	56.00

Panel C: Correlation Matrix

	Confederate	*End Price*	*Listing Price*	*Withdrawn*	*Slow Sale*	*Large Discount*	*Age*
Confederate	1.00	-0.05	-0.04	0.03	0.04	0.06	0.15
End Price		1.00	0.93	-0.03	-0.01	-0.24	-0.23
Listing Price			1.00	-0.04	0.02	-0.09	-0.22
Withdrawn				1.00	0.09	-0.06	0.00
Slow Sale					1.00	0.30	0.00
Large Discount						1.00	0.13
Age							1.00

Table IA5. Listing Outcomes for Confederate Street Names – Alternative Fixed Effects

This table repeats the analysis in Table 7 of the paper after adding Census Tract ×Age Quintile fixed effects.

	Withdrawn	*Slow Sale*	*Discount*	*Withdrawn*	*Slow Sale*	*Discount*
	[1]	*[2]*	*[3]*	*[4]*	*[5]*	*[6]*
Confederate	0.88%	1.89%	1.90%	1.02%	1.44%	1.67%
	(1.20)	(2.32)	(2.21)	(1.39)	(1.90)	(2.07)
Log (House Size)	2.71%	8.78%	2.25%	2.71%	8.16%	0.93%
	(2.16)	(4.29)	(1.31)	(2.13)	(4.30)	(0.59)
Log (Age)	0.07%	-0.07%	5.28%	0.61%	-1.22%	5.31%
	(0.09)	(-0.06)	(5.99)	(0.72)	(-1.14)	(6.81)
Log (Lot Size)	0.43%	-0.90%	-0.69%	0.39%	-0.78%	-0.42%
	(1.00)	(-1.14)	(-1.04)	(0.91)	(-0.98)	(-0.63)
Bed2	4.68%	-1.55%	-4.33%	4.28%	-0.85%	-3.16%
	(2.19)	(-0.39)	(-1.08)	(2.04)	(-0.20)	(-0.75)
Bed3	2.43%	-3.66%	-6.50%	1.87%	-2.37%	-5.30%
	(1.10)	(-0.94)	(-1.60)	(0.87)	(-0.57)	(-1.26)
Bed4	2.53%	-4.18%	-5.80%	2.05%	-3.05%	-4.48%
	(1.07)	(-1.06)	(-1.34)	(0.90)	(-0.73)	(-1.00)
Bed5	1.55%	-5.65%	-3.24%	1.37%	-5.03%	-1.79%
	(0.61)	(-1.36)	(-0.66)	(0.57)	(-1.16)	(-0.36)
Bath2	-0.58%	-2.91%	-4.43%	-0.95%	-1.93%	-3.94%
	(-0.78)	(-3.03)	(-4.20)	(-1.27)	(-2.03)	(-3.76)
Bath3	-1.29%	-2.43%	-4.11%	-1.64%	-1.47%	-3.84%
	(-1.31)	(-1.76)	(-3.15)	(-1.69)	(-1.11)	(-3.10)
Bath4	0.07%	-3.01%	-2.58%	-0.11%	-2.46%	-1.95%
	(0.05)	(-1.74)	(-1.38)	(-0.07)	(-1.54)	(-1.13)
Bath5	-1.08%	3.69%	1.35%	-1.04%	3.45%	0.39%
	(-0.51)	(1.11)	(0.44)	(-0.51)	(1.12)	(0.14)
Log (List Price)	-0.05%	8.06%	6.75%	0.42%	6.60%	5.07%
	(-0.04)	(5.33)	(5.71)	(0.32)	(4.82)	(4.29)
Withdrawn					4.99%	-18.26%
					(3.63)	(-10.27)
Slow Sale				2.65%		20.69%
				(3.60)		(13.98)
Large Discount				-10.17%	21.63%	
				(-12.02)	(15.71)	
Fixed Effects			Tract × Qtr. & Tract ×Age Quintile			
Observations	20,363	20,363	20,363	20,363	20,363	20,363