Getting Inside the Black Box of 'White Flight':
The Role of Suburban Political Autonomy and Public Goods

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Abstract: The postwar suburbanization of white households was, in part, a response to black in-migration to central cities. Yet, as early as 1940, cities were themselves highly segregated, offering a viable substitute for white households with a preference for same-race neighbors. One unique benefit of the suburbs was their political autonomy, which provided residents the ability to make public decisions with a racially homogeneous electorate. This paper uses housing prices to estimate the implicit market value of jurisdiction-level racial composition. Using Census block data from 1950 through 1970, I compare the rents/values of housing units on opposite sides of unobstructed jurisdictional borders. While the housing stock and quality of the neighborhood improves slowly across these borders, the fiscal decision-making and school system change abruptly. For my pilot sample of borders, a 10 percentage point increase in the jurisdiction-level black share (the sample mean) is associated with 2.5 percent lower housing values and a 5.5 percent lower rents. Around half of this negative relationship is due to the correlation between the black population share and median income at the jurisdiction level. Evidence from public expenditures and input levels suggests that the largest policy area of contention between blacks and whites in postwar cities was elementary education.

I. Introduction

In the decades following World War II, American metropolitan areas underwent a period of

rapid suburbanization, driven almost entirely by the relocation of white households to the

suburban ring. Whereas 40 percent of white residents in the average SMSA lived outside the

central city in 1940, by 1970 the mean white suburban share had increased to 65 percent.[1] This

postwar suburbanization coincided with a wave of black migration out of the rural South. Black

migrants disproportionately settled in central cities, and, as a result, the black share of the

population in the average city increased from 11 percent in 1940 to 28 percent in 1970. In

previous work (Boustan, 2004), I demonstrate that 25-30 percent of white suburbanization in the

postwar period was in response to the increased black presence in city centers, a phenomenon

colloquially known as 'white flight' (Boustan, 2004).[2] In addition to black in-migration, postwar

suburbanization has been attributed, in part, to rising household incomes (Margo, 1992), the

baby boom (Frey, 1984), and the reduction in commuting costs associated with the construction

of the interstate highway system (Baum-Snow, 2005)

      Establishing a relationship in the aggregate between black in-migration and white

suburbanization leaves open the deeper question of *why* white households sought to leave

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[1] The figures in this paragraph are based on the 104 SMSAs with more than 250,000 residents in 1970, and, for comparison, are calculated using common central city and metropolitan area boundaries in both decades. That is, I estimate what the white suburban share *would have been* in 1970 if central cities had not annexed suburban territory in the previous 30 years (Bogue, 1953; US Census, 1960, 1970). Annexation was an important instrument of city growth, especially in the South, and thus the actual mean white suburban share in 1970 was only 55 percent.
[2] Boustan (2004) documents a positive correlation between changes in central city racial composition and the corresponding fraction of whites living in the suburban ring within metropolitan areas over time. Recognizing that black migrants may have been attracted to particular metropolitan areas by the same economic factors that underlay suburbanization (e.g., income growth), I develop an instrumental variables procedure that predicts black migration into northern/western cities. The instrument first establishes the state-of-origin profile of a city's black migrant stock in 1940, and then uses these shares to weight the predicted national growth rates of black migrant communities by southern state. Even after accounting for migrant location choices, I find that white flight was a quantitatively important cause of postwar suburbanization.

racially diverse central cities.[3] Perhaps the simplest explanation is that white residents had a preference for same-race neighbors.[4] Even as sustained in-migration fueled the growth of large black communities in city centers, the suburban ring in the average metropolitan area remained over 98 percent white in 1970. The suburbs thus offered a large supply of white neighborhoods. However, central cities were *themselves* highly segregated by race in 1940, and grew more so with the arrival of black migrants (Cutler, Glaser, Vigdor, 1999). In 1940, for example, 81 percent of Census tracts in central cities were at least 90 percent white and 60 percent were 99 percent white.[5]

Suburbanization and further isolation within the center city were thus substitutable "segregation technologies" for households seeks to avoid local interactions with black neighbors. One *unique* benefit of the suburbs relative to white neighborhoods in the center city was their incorporation as separate political jurisdictions. With the exception of water and sewage, which are commonly controlled by special district governments at the regional level, suburban communities retain local control over public services. In contrast, by remaining within the center city, white households had to negotiate with southern black arrivals via the ballot box on the amount of municipal spending, the list of spending priorities, and the method of public finance. Alesina, Baqir and Easterly (1999) argue that a diverse electorate – that is, one in which the

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[3] One possibility is that, black migrants increased housing demand for, and thus prices of, housing in the center city relative to suburban areas. However, Saiz and Wachter (2005) rightly argue that, with free mobility, a concentrated migration will *not* differentially raise prices in the receiving neighborhoods. Rather, as prices rise in ports of entry, existing residents will move out, thereby spreading higher prices throughout the metropolitan area. Indeed, the 'white flight' response was sufficiently large that any one black migrant led 2.5 white residents on average to leave the central city (Boustan, 2004).

[4] In a Gallup poll conducted in 1958, 44 percent of white respondents indicated that they would move if a black family moved in next door. This share fell to 13 percent by 1978. (Ellen, 1999, p. 107-108). While it is harder to get data on *actual* mobility during this period, recent evidence from the Panel Study of Income Dynamics suggests that whites are more likely to leave racially mixed neighborhoods (Crowder and South, 2002).

[5] Note that the actual number of black residents in a tract is suppressed in tracts with fewer than 25 black residents. Following Cutler, Glaeser and Vigdor (1999), I coded these tracts as having no black residents, which gives an upper-bound on the share of tracts that are predominately white. If instead I assume that all tracts with suppressed data had 25 black residents, 79 percent of tracts are 90 percent white and 52 percent of tracts are 99 percent white.

distance between individual preferences and those of the median voter is high – is less likely to provide public goods. Knowing that their priorities will not be reflected in collective decisions, individuals are less likely to authorize public expenditure. Even if preferences do not differ across racial groups, voters may place a lower weight on maintaining "other people's" neighborhoods or educating their children (Cutler, Elmendorf and Zeckhauser, 1993).

Furthermore, urban dwellers had to send their children to city schools that were, at least on paper, racially integrated (or, opt to pay for a private education). Before the implementation of court-ordered desegregation plans in the late 1960s, city residents were able to send younger children to neighborhood elementary schools which, like neighborhoods themselves, were predominately own-race. However, large public high schools drew students from different neighborhoods and were often racially mixed. An aversion to integrated classrooms may be another factor underlying the demand for suburban residence.

With the rise of the civil rights movement in the 1950s, political constraints prevented northern cities from disenfranchising black voters or establishing separate school systems and public facilities by race, two methods used in the South to divorce public decision-making from local racial composition. For northerners, moving to a jurisdiction outside the central city was the individual alternative to such collective legal action.[6] By choosing a suburban location, white households could "vote with their feet," effectively selecting their desired bundle of public services even as metropolitan-level racial diversity increased (Tiebout, 1956).

Politically-motivated 'white flight' of this kind suggests that the demand for suburban residence was due not only to a preference for same-race neighbors but also for a same-race

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[6] Absent legal barriers, increasing racial diversity may have also prompted white neighborhoods to secede from the central city. In a similar vein, Alesina, Baqir and Hoxby (2004) demonstrated that school districts in counties receiving large black in-migrations during the decades of World Wars I and II were less likely to consolidate with neighboring districts.

electorate. I investigate this possibility by using housing prices to infer the implicit market value

of location in a racially homogeneous town. A significant empirical hurdle facing this analysis is

the likely possibility that the quality of the housing stock and the neighborhood environment

systematically differ between diverse and homogeneous jurisdictions. On average, a larger share

of the suburban population is white; suburbs also tend to have a newer housing stock, larger lots,

more open space, and safer streets than their urban counterparts.

To address this obvious omitted variables bias, I consider a natural experiment created by

the frequently arbitrary division of urban space into independent jurisdictions. Using Census data

from 1950-1970, I identify Census blocks adjacent to jurisdictional borders within metropolitan

areas, and compare housing values on either side of this political divide. Specifically, I ask

whether home values and rents are higher for housing units on blocks that are located in

homogeneous towns, compared with their neighbors in more diverse jurisdictions. The

identifying assumption underlying this approach is that, whereas political control changes

discontinuously at these borders, housing and neighborhood quality shifts more continuously.[7]

While I provide evidence for neighborhood continuity at the border, using the limited set

of available housing quality measures, one may object that even initially indistinguishable

neighborhoods may have diverged if homeowners differed in their patterns of upkeep and

maintenance across borders. To address this possibility, I add variation over time, evaluating the

evolution of the gap in home values at jurisdictional borders from 1950 to 1960 and from 1960 to

1970 as in-migration augmented the black population in different municipalities at different

rates. In other words, do housing values fall as a jurisdiction becomes more diverse, holding

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[7] This methodology applies the common idea of a regression discontinuity (e.g., Angrist and Lavy (1999)) to the
spatial dimension. In a similar fashion, Black (1999) and Kane, Staiger and Samms (2003) have used the boundaries
of school attendance areas to study the market value of elementary education.

local neighborhood quality constant? A key advantage of this approach is that it eliminates bias

from time-invariant disparities in the quality of the housing stock across borders.

In the current version of the paper, I present preliminary results from a pilot sample of

jurisdictional borders, which represents around a third of the planned data collection. Across

these borders, the mean difference in the jurisdiction-level black share was 8 percentage points in

1960 and 12 percentage points in 1970. My estimates imply that, at the mean, the value of

owner-occupied housing was 2.5 percent lower on the more diverse side the border. Rents, which

may have been more accurately measured in the Census, were 5.5 percent lower. I find an

equivalent effect on housing prices and rents when adding over time variation, which suggests

that the estimates are not merely reflecting fixed differences in neighborhood quality. This

pattern is consistent with a demand for suburban residence that was due not only to the

preference for same-race neighbors, but also, conditional on neighborhood composition, was

driven by a desire to belong to a homogeneous electorate.

With this framework in place, I explore the set of relevant public decisions that may

account for the observed preference for racially homogeneous municipalities. I consider

measures of total public expenditures, property taxes, and resources provided to education,

public safety, sanitation and parks. I tentatively conclude that the value placed on racial

homogeneity reflects differences in preferences for educational expenditure, as proxied by

school-district level pupil-teacher ratios. Finally, noting that black migrants were poorer on

average than urban whites, I ask whether the relevant political division was one of race or of

class. I find that around half of the relationship between racial composition and housing values is

due to the correlation between race and median income, though a detectable race effect remains.

II. Using Housing Prices to Analyze the Demand for Suburban Residence

Unlike simple consumer goods, housing units are composed of a bundle of characteristics – including characteristics of the unit itself, of the neighborhood in which the unit is located, and of the jurisdiction – each of which commands a separate price (Kain and Quigley, 1975). In theory, one can isolate each price with the right data and experimental design, and, by so doing, gain insight into the demand for a variety of non-market goods that are implicitly traded through the housing market. This technique is known as hedonic pricing, and follows from Rosen's (1974) seminal work; recent examples of this approach include Black's (1999) analysis of the value of elementary education and Chay and Greenstone's (2005) examination of the cost of air pollution.

One challenge to using housing prices to infer the demand for amenities and public services is that such attributes tend to come in bundles. For example, newer, larger, higher quality houses are more likely to be located in predominately white neighborhoods and jurisdictions. Even when in possession of the richest set of controls (for example, modern data from the Multiple Listing Service), one might reasonably be concerned about the presence of unobservable housing unit or neighborhood-level attributes that may be correlated with the share of a jurisdiction's population that is black. In lieu of using statistical methods to compare like housing units, I will exploit the sharp and frequently arbitrary division of urban space into separate municipalities and compare adjacent blocks on opposite sides of a jurisdictional border. For this application, which requires detailed geographic information, I rely on published block-level means of housing values (rents).[8] I posit that block-level housing values (rents) are a

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[8] Housing values and rents in the Census are based on self-reports. Home owners may only have a vague sense of the market value of their property, while rent, which is usually paid on a monthly basis, may be measured with less

function of the racial composition of the jurisdiction in which the unit is located. In particular, I

estimate the following equation:

$$\ln(\text{price}_{ibj}) = \alpha + \beta \text{ \% black}_j + \Phi' X_i + \theta' Z_b + \varepsilon_{ibj} \tag{1}$$

where i indexes blocks, b is a subscript common to both sides of a "border area," and j indicates

the political jurisdiction. I cluster standard errors by border area, thus allowing a common set of

unobservable housing characteristics to affect the error term within border neighborhoods.

Because the dependent variable is measured at the block level, I weight the regressions by the

number of owner-occupied or rental units, respectively.

The dependent variable, $\ln(\text{price}_{ibj})$, refers to the logarithm of the average home value per

room or contract rent per room on block i.[9] In addition to the variable of interest, I include a set

of block-level characteristics (X_i), including local racial composition.[10] Finally, the equation

contains a vector of border area dummy variables (Z_b), which take on a value of one for all

blocks on either side of the jurisdictional border in a given border area and zero otherwise. By

including border dummies, I estimate β from *differences* in jurisdiction-level racial composition

between neighboring blocks.

To this point, I have been imprecise about the definition of a "border area." For most of

the analysis, I consider only those blocks that themselves touch a segment of the border. For

comparison, I also construct a sample that includes all blocks in Census tracts adjacent to the

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error. However, inaccuracies in self-reports are unlikely to vary across jurisdictional borders, unless certain jurisdictions assess properties more regularly than others to update their property tax base.
[9] The coefficients are unchanged if the average number of rooms on the block are included as a control variable instead, suggesting that the results are not driven by differences in average unit size.
[10] The other available measures of housing quality at the block level are the share of units on the block that are "overcrowded" (defined as 1.01 or more occupants per room) and the share that are deemed "unsound" (that is, lacking either plumbing or running water). The Census Bureau is planning to make available a comprehensive new (secure) data set that links individual-level data to Census geography for 1960-2000. With this data, I will be able to include information on the number of bedrooms and bathrooms in the unit, the building's age, and the presence of a basement, shower, kitchen, and public sewage hookup.

border.[11] I refer to blocks that are adjacent to the border as being in the "first tier," and any

additional blocks as being in the second or higher tiers. To clarify geographic terms, Figure 1

presents a schematic illustration of two jurisdictional borders in the Chicago metropolitan area.

The upper pair is composed of tracts from Chicago and Evanston, IL, and the lower pair from

Chicago and Oak Park, IL. Nested within each tract is a grid of blocks, of which I have

illustrated only the first tier. All blocks in the city of Chicago are coded as being in the same

jurisdiction ($j = 1$), whereas blocks in Evanston and Oak Park are located in distinct jurisdictions

($j = 2$; $j = 3$). In contrast, adjacent blocks are assigned to the same "border area" even if they fall

in different jurisdictions. In the figure, the Chicago/Evanston border is coded as $b = 1$, and the

Chicago/Oak Park border is $b = 2$.

To interpret β as the true discount in housing prices for living in a racially diverse

jurisdiction, we need to assume that the error is uncorrelated with the black share of the

population in the jurisdiction in which a housing unit is located. However, there are a number of

reasons why we might expect the error to have both idiosyncratic and jurisdiction-specific

components – which we could express as $v_j + \eta_{ibj}$ – and for v_j to be correlated with % black$_j$.

First, certain jurisdictions may have effectively prevented black in-migration by passing zoning

ordinances that banned multi-family units or required large lot sizes for new construction. Such

regulations may have increased the average quality of the housing stock throughout the affected

towns, including the blocks bordering neighboring municipalities, thus inducing a negative

correlation between racial diversity and unobserved quality.[12] On the other hand, many central

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[11] The average tract in my sample extends half a mile from the border. Thus, the larger sample compares housing units that are up to one mile distant, while the more refined sample contrasts housing units that are within two blocks, or around 200 meters apart.

[12] Zoning rules that apply only to *new* construction should not differentially affect housing quality across the borders in this sample because the inner ring of suburbs were already built up by the 1920s, when the first zoning laws were passed. Bans on multi-family use, on the other hand, apply both to new construction and to conversion of existing units, and may have had a differential effect across borders.

cities had residency requirements for their civil servants, who may have clustered on city/suburban borders to take advantage of non-excludable suburban amenities (for example, parks). If block-level human capital affects local housing values, residency requirements might generate a positive relationship between jurisdiction-level diversity and home values specific to these border areas. Finally, we should recall that, by 1960, these borders may have been in place for a century or more. Any jurisdiction-level public goods that raised property values in one town over another may have resulted in a divergence in the incentives for home maintenance, renovation, and upkeep, resulting in sharp changes in housing quality at the border.

I address these and any other factors that may create persistent differences in housing or neighborhood quality at the border by adding over-time variation. In practice, I pool data from 1960 and 1970 and add a Census-year dummy variable to equation (1), thus estimating β from *changes over time* in the difference in jurisdiction-level racial composition across borders. In this model, the relevant variation in black population shares arises not from long-seated historical patterns of African American settlement, but from relative rates of black in-migration within metropolitan areas over the 1950s and 1960s.

III. Collecting Housing Prices Along Jurisdictional Borders

Before turning to the estimation results, this section describes the construction of a common sample of jurisdictional borders for 1950-1970. The border sample determines the Census tracts for which I collect block-level housing data, in 1950 and 1960 (hand-entered) and 1970 (electronic). I also hand-code the blocks into "tiers" according to their distance from the jurisdictional border.

The Census Bureau began dividing urban space into comparable geographic units in 1940, carving cities into tracts (homogeneous areas with approximately 4,000 residents) and further subdividing tracts into blocks.[13] By 1960, the Bureau had blocked all urban places with more than 50,000 residents, in addition to a partial list of smaller suburban jurisdictions, and, by 1970, all urbanized areas were fully overlaid with Census blocks. To construct a panel sample at the tract level, I start with a sampling frame of the 25 metropolitan areas with the largest central cities in 1960. Within these areas, I identified 65 jurisdictional borders for which there is available block-level data on both sides in 1960.[14] I then use a combination of Census block maps and historical US Geological Survey 1:24,000 maps to rule out any borders obstructed by a railroad, four-lane highway, body of water, or large tract of industrial land.[15] This procedure leaves me with 57 unobstructed borders, which I then match to the corresponding tracts in 1950 and 1970.

The 57 jurisdictional borders in the panel sample are classified by region and metropolitan area in Table 1. While the sample draws from all regions of the country, it is clear when comparing those metropolitan areas included in the sample (panel A) to those left out (panel B), that the sample under-represents the South and over-represents the Midwest. The under-representation of the South is due to the fact that southern cities tended to encompass a larger share of the land area in the surrounding metropolitan areas and to have fewer long-

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[13] Before creating tracts, the Census compiled information by 'ward,' a political unit that contained a highly variable number of residents and, for partisan reasons, often had oddly-shaped borders.

[14] While for ease of exposition, I will occasionally refer to city/suburban borders, a third of the borders in my sample divide two suburbs.

[15] The goal of ruling out obstructed borders is to improve the plausibility of the identifying assumption, namely that housing and neighborhood quality vary continuously across jurisdictional borders in the sample. However, eliminating borders that are separated by, say, industrial land raises the question of endogenous border formation. Municipalities can erect bulwarks against unwanted populations by zoning for industrial use along their borders or constructing large roadways with limited ability for pedestrian crossing. Cicero, IL is infamous for its ethnic and racial exclusivity (Keating, 1988). It may be no coincidence, then, that the Chicago/Cicero border is obstructed by industrial land. As a result, the selection of borders into the sample will likely favor jurisdictions that are the *least* hostile to new arrivals, suggesting against the presence of a selection bias.

established suburbs than their northern counterparts. The mobility response of white southerners

to black in-migration may have been stronger than in the North, because of greater racial

antipathy and a wider gap in preferences for public spending, or may have been muted because

of black disenfranchisement and the legacy of 'separate but equal' funding. In either case, it is

important to note that the estimates will weight the northern experience more heavily. In the next

few months, I plan to construct a more complete sample for 1970, which will not be limited by

the partial nature of Census blocking in earlier decades.

If we look at the sample, instead, in terms of the number of borders found in each

metropolitan area (column 4), it is clear that two places – New York City and Los Angeles – are

vastly over-represented. While, in 1960, these two metropolitan areas contained only 20 percent

of the population living in the top 25 cities, they contribute 33 borders, or over half of the

sample. In part, the over-representation of New York City and Los Angeles is due to the highly

fragmented nature of these metropolitan areas, each of which contained multiple secondary

central cities (e.g., Newark, NJ; Anaheim, CA).[16] As these examples make clear, the sampling

procedure will *by definition* over-represent fragmented metropolitan areas; at the extreme, a

central city with no suburbs – for example, Jacksonville, FL whose borders correspond with

those of the metropolitan area – has a zero probability of inclusion.

The results in the current paper derive from a pilot sample, which includes only 20 of the

57 jurisdictional borders in 1960 and 1970. Table 2 contains a list of the jurisdiction pairs in the

pilot sample organized by metropolitan area; note that 13 of the 20 borders in the sample are

from the Los Angeles SMSA. For each pair, the jurisdiction with a larger black share of its

population is on the left hand side. Center cities all have a larger black presence than their

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[16] Indeed, in 1970, the Census Bureau subdivided the New York City SMSA into four parts (New York City, NY; Jersey City, NJ; Newark, NJ; and Clifton-Paterson-Passaic, NJ) and split the Los Angeles SMSA in two (Los Angeles-Long Beach and Anaheim-Santa Ana-Garden Grove).

suburban counterparts, but the gap in black shares varies from 29 percentage points (Detroit-Dearborn) to a single point (Los Angeles-Pasadena). Note further that many of the suburb-suburb borders in the sample have little meaningful difference in their racial diversity.

IV. The Demand for Racially Homogeneous Jurisdictions: Evidence from Housing Prices

With the preliminary sample of jurisdictional borders in place, this section documents a relationship between housing values/rents and the racial composition of the local electorate. I begin by presenting evidence that, at least from the limited set of housing characteristics, there is no discernable difference in housing or neighborhood quality across jurisdictional borders. In both 1960 and 1970, I then relate differences in housing values/rents across these borders to a series of municipal-level demographic and socio-economic variables, including: the share of the population that is black or Hispanic; the logarithm of median income; the Gini coefficient, a measure of income inequality; and, for 1970, the share of families in the jurisdiction earning less than the federal poverty line.[17] Finally, I consider variation over time, comparing relative increases in housing values and rents across borders to changes in jurisdiction-level racial composition. Appendix Table 1 contains the means and standard deviations of variables at the block- and jurisdiction-levels, and for differences across jurisdictional boundaries.

In 1960, available information on housing quality at the block level is limited to the share of the units that were 'unsound' or 'overcrowded,' extreme conditions that apply to fewer than 5

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[17] The Census definition of Hispanic ethnicity shifts over time and across space in this period. In 1960, residents of five states (AZ, CA, CO, NM, and TX) were coded as Hispanic if they had one of 12,000 recognized Spanish surnames. In the remaining states, there was no enumeration of Hispanics; thus, I calculate the share of the population who were born in or whose parents were born in Mexico or Puerto Rico. In 1970, the Census retained the surname test for the five southwestern states, and coded others as Hispanic if they listed Spanish as their mother tongue or lived in a household in which the head spoke Spanish. Residents of NJ, NY, or PA who were born in or who had parents born in Puerto Rico were also considered Hispanic, regardless of their language of origin.

percent of the sample, and the share of residents living in 'group quarters.'[18] The Census Bureau

added information in 1970 on the number of single-family structures, and the number of units

that are vacant, owner-occupied, or rented. In Table 3, I look for observable differences in

housing quality across jurisdictional borders. Each row in Table 3 represents a different

regression, for which the dependent variable is a block-level housing or demographic

characteristic and the explanatory variable is the racial composition of the surrounding town. The

regression framework is equivalent to equation (1), and the sample is restricted to the first tier of

blocks. There is no evidence that blocks in diverse municipalities have a lower share of single-

family structures (a measure of the housing *stock*), or a difference in vacancy or owner-

occupancy rate (a *flow* measure of land usage), when compared to their immediate neighbors.

They were also no more likely to have residents in group quarters.

The only published demographic information about the residents of each block is the

share of units occupied by a black household. If, as was hypothesized above, individuals prefer

to make public decisions with members of the same race, we would expect to see a larger

concentration of black families on the more diverse side of each border. In this case, one would

rightly worry about the assumption of neighborhood continuity, because any price differential

associated with jurisdiction-level racial composition could actually be a local response to

immediate neighbors. In fact, the neighborhoods in the sample are predominately white (98.5

percent white in 1960 and 95 percent white in 1970) and, perhaps because the black presence is

so small, there is no statistically discernable evidence in 1960 that black residents are more

common on the diverse side of borders. By 1970, there is some indication that blocks in diverse

jurisdictions had a larger black presence, though the estimate is only marginally significant and

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[18] 'Group quarters' include college dormitories, retirement homes, children's facilities, or any other living
arrangement in which there are five or more residents unrelated to the household head.

is driven entirely by one border, Los Angeles-Inglewood. The surrounding neighborhood, which was only 5 percent black in 1960, "tipped" during the decade; by 1970, blocks on the Los Angeles side of the border were 73 percent black in 1970, while those on the Inglewood side were "only" 41 percent black. The share of black residents in this area is an order of magnitude higher than any other tract pair in the sample. When I exclude this border, the point estimate halves and is no longer statistically significant. To minimize the possibility that price differentials are driven by local demographics, I will include the black share of residents on the block in most specifications.

The available housing characteristics, limited as they are, give no indication that the quality of the housing stock differs systematically across the sample of jurisdictional borders. Thus, Tables 4-6 treats these borders as a natural experiment across which the provision of local public services changes sharply, while neighborhood quality improves only gradually. Table 4 begins by evaluating differences in owner-occupied housing values across borders in 1960. Table 5 considers home values in 1970, and Table 6 looks at rents.

In Tables 4-6, each column represents a different specification, where the dependent variable is the logarithm of average home values/rents per room.[19] Turning first to Table 4, I begin in the first column with the larger sample, which include *all* block tiers in the Census tracts adjacent to the jurisdictional borders. The resulting estimate implies that housing units in municipalities with a larger black presence have values that are 3.3 percent lower ((-0.418/100) x 8.4), on average, than their counterparts in a neighboring jurisdiction. When I restrict the sample in column 2 to the first tier of blocks on either side of the border, the coefficient falls slightly.

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[19] To be more precise, I construct the left-hand side variable by dividing the mean housing value on the block by the average number of rooms in owner-occupied units. In 1970, for reasons that are unclear, only two-thirds of blocks have information on the average number of rooms by tenure status. To obtain a larger sample, I use the average number of rooms in *all* units in the denominator. For comparability, I use the smaller sample of 1970 blocks when looking at variation over time.

The disparity suggest that 10-15 percent of the negative coefficient in column 1 may be due to unobserved differences in housing quality. Column 3 includes available block level controls, including the share of units on the block occupied by black residents, and column 4 includes the jurisdiction-level Hispanic share. While the presence of black neighbors has an independent, negative effect on housing values, including these controls does not change the estimated effect of the jurisdiction-level black share.

The results thus far are consistent with the notion that white households were attracted to the suburbs, in part, to avoid having to living in a racially diverse jurisdiction. However, it is still not clear whether this 'white flight' was a reaction to the race or the class position of the new arrivals. Black migrants were far poorer, on average, than existing white urban residents. Thus, their arrival led both to a decline in average household incomes and to an increase in income inequality in receiving municipalities. To measure income inequality, I construct a Gini coefficient from counts of families in 14 income categories within each jurisdiction.[20] Being located in a jurisdiction with higher income inequality independently reduces home values (column 5), as we would expect if preferences for public goods differ by income class, but it does not affect the coefficient on share black. However, after adding the logarithm of median income in column 6, the coefficient on share black is cut in half, and is no longer statistically significant (though the power may improve as I add more borders to the sample). Overall, it appears that differences in socio-economic status account for much of the divergence in preferences between black arrivals and existing white residents, though there is some indication of a distinct "race effect."

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[20] Specifically, I assume that all families in a category earn the midpoint of the designated interval (or 125 percent of the lower threshold for the top category). In other words, for lack of better information, I impose perfect equality *within* income categories, and measure only income inequality *between* categories.

In Tables 5 and 6, I conduct the same exercise for home values in 1970 and then for rents in both years. The results from 1970 indicate an effect of jurisdiction-level racial composition of a similar magnitude; the coefficients imply that the mean difference in share black is associated with a 2.5 percent decline in home values ((-0.215/100) x 11.8). Unlike in 1960, the estimate is no longer robust to the inclusion of the Hispanic share, though this appears to be a result specific to Los Angeles. In column 7, I include the share of the population earning less than the federal poverty line.[21] The coefficient on black share is now only marginally significant, through the magnitude is unchanged. Taken together, the income results suggest that white households were responding to the effect of black in-migration on the entire income distribution, not solely to their over-representation among residents in extreme poverty.

I present separate results for rents in Table 6 for two reasons. First, owning a home has consumption value, but is also an investment, and thus home values may capitalize expectations about future migration patterns. If the bifurcation of racial residential patterns between "chocolate cities and vanilla suburbs" was predicted to continue, the effect of current racial composition may be larger for home values than for rents; the opposite would be true if black households were expected to eventually relocate to the suburban ring (Schnore, André, and Sharp, 1976). In addition, homeowners and renters may have systematically different preferences over public goods (Epple and Romer, 1991). Homeowners, for instance, may want lower property taxes, or may be more likely to have children and thus put more weight on education spending. Table 6 indicates that the effect of jurisdiction-level racial composition on rents was larger than on home values in percentage terms – for the mean difference in black share, rental units on the more diverse side of the border are priced 5.5 lower, compared to 2.5-3.0 percent

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[21] The concept of an absolute "poverty line" was developed in the 1960s, using an algorithm that takes into account family income, size, and composition.

lower home values. This disparity could be due to the fact that the Census measures of rents may be more up-to-date than those of home values, both of which are based on self-reports. In theory, this pattern may be reversed in a sample of recent home sales. Finally, it is unclear if the rental results can be generalized to the suburbs as a whole. Even for this sample, which is composed entirely of blocks adjacent to the central city, only 30 percent of units are rented; the fraction of renters was even smaller in the suburban interior.

So far, I have treated the comparison of blocks across municipal borders as a true natural experiment, under the implicit assumption that jurisdiction-level variables measure only electoral preferences and, therefore, were not correlated with unobserved housing or neighborhood quality. However, we might worry that jurisdictions have zoning policies that differentially affect the built environment, or other salient policy differences (for example, school quality) that may, over time, have led to divergence in neighborhood composition and housing investment. To address the possibility of time-invariant differences in neighborhood quality, I pool the 1960 and 1970 data and re-estimate the regressions with a set of border dummies and a year dummy; the results are presented in Table 7. There is no evidence that the earlier estimates were driven by a fixed differences in housing quality across borders. The coefficients in Table 7 still imply a 2.5 percent decline in home values and a 5.5 percent decline in rents on the more diverse side of the border at the sample mean.

Even if there is no *fixed* difference in housing quality across these borders, property values in central cities were declining relative to their suburbs over this period, due, in part, to race rioting and their aftermath (Collins and Margo, 2004). Indeed, in my sample, housing values fell by 4 percent in central cities relative to their suburban neighbors during the 1960s (s.e. =

0.027), while rents declined by 7 percent (s.e. = 0.040).[22] However, including an indicator for

being in a central city does not affect the relationship between changes in the jurisdiction-level

black share and housing values or rents (Table 7, column 4).

To further rule out the possibility that differential *trends* in housing quality across borders

are confounding the estimates, I construct a set of "placebo" borders wholly within single

jurisdictions. According to the alternative hypothesis, the estimated housing price differential

does not signify anything unique about the border – such as access to a different bundle of public

goods – but merely reflects a decline in housing quality. In this case, one would expect relative

declines of the same magnitude when comparing housing values on other, similarly-located pairs

of block tiers. In Figure 2, I compare the coefficient estimated at the actual jurisdictional border

to those from a series of simulated borders entirely within the more/less diverse jurisdiction. (for

ease, labeled "city" and "suburb," respectively, in the figure). Each placebo experiment has the

same structure as the actual estimation, except that block tiers are *assigned* a jurisdiction-level

demographic composition according to their relative location – that is, tiers closer to the center of

the diverse jurisdiction are assigned the higher black share, and vice versa. Figure 2 indicates

block tiers by distance from the actual border, with "suburban" ("city") tiers indexed with

positive (negative) numbers. If the estimate at the actual border merely reflected relative

neighborhood decline, we would expect similarly sized negative coefficients for each of the

placebo experiments. Instead, the true estimate stands out as being three times larger in absolute

value and the only coefficient significantly different from zero.

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[22] Adopting the Census Bureau's designation, the central cities in the pilot sample are: Boston, MA; Chicago, IL; Detroit, MI; Los Angeles, CA and Long Beach, CA.

V. Which Public Decisions Matter?

White mobility to the suburbs rather than to white neighborhoods in the central city may have reflected a desire to make public decisions with a racially homogeneous electorate. As the median voter in the city changed, white households may have moved to the suburbs in search of a public bundle that better corresponded to their preferences. By including perfect measures of public goods and fiscal instruments in the above regressions, we should, in theory, be able to eliminate the estimated relationship between housing values and jurisdiction-level racial composition. Put another way, beyond its effect on the nature of tax rates and public services, there is little reason why the racial composition *of the surrounding town* should influence the value of housing on neighboring blocks.

Lacking ideal measures of the productivity of the public sector, this section has the less ambitious goal of identifying categories of public spending and fiscal variables that may mediate the relationship between municipal diversity and housing values. To do so, I supplement the basic specification with measures of total spending, property tax rates, and inputs into key public sectors (education, public safety and environmental amenities) in turn. In each case, I look for changes to the estimated partial relationship between the jurisdiction-level black share and housing values. If, as a result of the new addition, the coefficient on the black share is reduced, I infer that the public good in question was part of the contested political terrain.

These results are the paper's most speculative. To date, I have only collected public goods measures for 1960. The quality of available indicators, particularly for education, improve for 1970, by which time the Office of Civil Rights required the collection of demographic and socio-economic information on students at the school and school-district level. I plan to incorporate this data over the next few weeks. Based on the evidence collected to date, I draw a

few tentative conclusions from this exercise. First, I find no evidence that black in-migrants and

white urban residents have different preferences on the total government budget or its methods of

finance. Instead, I find that, at least for home owners, the majority of the relationship between

housing values and jurisdiction-level racial composition can be explained by differences in

education inputs.

Measuring the quantity of public services is a notoriously difficult task, and, as a result,

many studies rely on measures either of public expenditures or of inputs into particular public

services – for example, the number of teachers or police officers (Dowding, John and Biggs,

1994).[23] Expenditures – P * Q – will be a noisy measure of the quantity of public goods (Q) if

the cost of provision varies by municipality with the extent of corruption and public-sector

unionization, or because of compensating differentials in wages.[24] The shape of the production

function linking inputs like teachers and police officers to ultimate outputs (education, public

safety) is unknown, and may again differ by municipality. Furthermore, even in the best case, we

often have only a single measure of output – for example, test scores, in the case of education –

even though residents most likely care about a whole range of outcomes.

Using the 1957 *Census of Governments*, I collect data on the total expenditures per capita

and the share of public expenditures financed by property taxes.[25] As a proxy for public safety

and environmental amenities, I use the separate shares of expenditure spent on the police force,

road maintenance, sanitation, and parks. Using the share of expenditures in each category, rather

than expenditures per capita, should minimize any systematic variation across jurisdictions in the

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[23] One exception is Menes (1999), who uses the share of roads with durable paving as a true measure of the quantity of one public good at the turn of the century.

[24] Teachers in inner-city districts may command higher wages, for instance, as a compensating differential for larger class sizes and more disruptive students.

[25] I hope to include measures of actual or effective property tax rates in the next few weeks.

costs of service provision.[26] However, without holding constant the underlying problems that public services are designed to address (for example, the crime rate, in the case of police), it is still unclear how to interpret these budget shares. Does a jurisdiction that spends a higher share of its budget on police services ultimately achieve more public safety, or did it just begin with a higher crime rate? To address this problem, at least in the case of public safety, I use data from the FBI's *Uniform Crime Reports*, which tallies all crimes reported to the police.[27] Cullen and Levitt (1999) find that the crime rate was an independent cause of suburbanization in the 1970s and 1980s. However, for the experiment in question, differential jurisdiction-level crime rates are unlikely to affect property values or rents at the border, as the *local* probability of victimization should change continuously across space.[28] Finally, as a measure of education input, I use the pupil-teacher ratio at the school-district level.[29] While there is mixed evidence about the effect of class size on educational outcomes (see, for example, Angrist and Lavy (1999), Krueger (1999)), to the best of my knowledge there are no historical data on other common measures, such as standardized test results.

I begin in Table 8 by considering summary measures of public funds and the share of spending on various categories of public goods. The focus should be on the familiar coefficient for the jurisdiction-level black share in the first row, which can be compared to the estimate in column 3 of Table 4 ($\beta = -0.329$; s.e. $= 0.174$). While there is some evidence that these measures of municipal policy matter to home owners, their inclusion does not change the estimated

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[26] This is because the town-specific price level is included in both the numerator and denominator of expenditure shares.

[27] I aggregate crimes into two categories – violent and property. Violent crime includes murder, manslaughter, rape and aggravated assault. Property crime includes robbery, burglary, larceny and auto theft.

[28] Note that the responsiveness of the police to reported disturbances may shift abruptly at the border. If criminals are aware of this variation, they may be more likely to offend on the lax side.

[29] School district data is also taken from the 1957 *Census of Governments*, with the exception of towns in Massachusetts, which finance education through their municipal governments rather than through separate school districts. Pupil-teacher ratios for Massachusetts are from the 1953-54 *Biennial Survey of Education.*

relationship between home values and racial composition. Home values are lower in jurisdictions that derive more of their public funds from property taxes (column 1). Somewhat surprisingly, the share of the budget dedicated to trash removal reduces home values (column 5), though higher expenditures on sanitation could merely reflect the extra resources required to manage a city that produces more waste, perhaps because of population density. The shares of spending on the other categories – police, roads, and parks – do not affect home values within these border neighborhoods, which is reasonable given that these goods are not fully excludable.[30] City residents who live so close to the suburbs are able to use suburban parks, and may benefit from enhanced suburban policing as well.

Despite the indication from Alesina, Baqir and Easterly (1999) that diverse jurisdictions are less likely to spend on parks, roads, and sanitation, I find no evidence that discord on these categories of public decisions influenced whites to leave diversifying central cities. I turn in Table 9 to education, which is both one of the largest categories of public spending and the one for which it is most plausible to imagine differences in preferences by race. In theory, white residents may have wanted to escape the school system in diverse cities both because of disagreement over allocation of resources and because of a direct aversion to sending their children to mixed-race schools (Reber, 2003). I will attempt to disentangle these two factors when I incorporate the 1970 data.

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[30] In the case of the police, this relationship could be biased downward if jurisdictions that spend more on the police do so because of higher underlying crime rates. I supplemented the regression in column 2 with measures of the violent and property crime rates per thousand residents (not shown). Including measures of crime increases the coefficient on the share of the budget spent on police, but the estimated relationship is still not statistically significant (coeff. = 0.833, s.e. = 1.345).

In Table 9, I start in the first column with the relationship between home values and the school-district level pupil-teacher ratio, a measure of public inputs to education.[31] A one standard deviation increase in class size is associated with a 2.7 percent decline in home values. When I include the pupil-teacher ratio and the black share in column 2, the coefficient on share black drops by 30 percent and is no longer statistically significant. This pattern is consistent with the proposition that politically-motivated 'white flight' was due in large part to conflict over education policy. To explore this hypothesis further, I consider the interaction of the black population share and the pupil-teacher ratio. If white residents object to spending on the education of black children, their preference for smaller class sizes should decline as the share of black enrollment increases. Indeed, I find a strong indication of this pattern in columns 3 and 4. Because the interaction term renders the coefficients difficult to interpret, I use the coefficients in column 4 to compare two hypothetical jurisdictions, both with the mean pupil-teacher ratio (25.3). Imagine one town that is entirely white, and another with an 8 percent black share (together comprising the sample mean). Now, consider the effect on property values of reducing the pupil-teacher ratio by a standard deviation or, by roughly three students per teacher, in each town. According to these coefficients, this policy change would increase home values by 6.8 percent in the all-white town, but only by 3.5 percent in the racially mixed one.

Table 10 introduces a piece of corroborating evidence on the importance of education policy in mediating the desire to live in a community with a homogeneous electorate. The 1970 data includes information on the age composition of block residents. If 'white flight' was, in part, a desire to avoid the school system in diverse jurisdictions, we would expect to find fewer children of public school age on the more diverse side of municipal borders. I consider two

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[31] I also tried matching each block tier to its closest high school to allow for variation in resources *within* districts.. Once accounting for the district-level pupil-teacher ratio, school-level measures have no additional effect on home values.

student categories – elementary/middle school (aged 5-13), and high school (14-17) – as well as

a comparison group of children aged 0-4, who are not yet old enough to attend school. As before,

each column represents a separate regression, in which the sample is restricted to the first block

tier, and the dependent variable is the share of residents on the block in a given age category. In

addition to jurisdiction-level demographic characteristics, I include the share of houses on the

block that are single-family structures, that are owner occupied, and that are made up of group

quarters. As we would expect, children are more common on blocks with a higher share of

single-family and owner-occupied homes. Further, even after controlling for median income and

the share of the population in poverty, there is a negative relationship between the share of the

municipality's population that is black and the share of residents on the block of public school

age, though the coefficient is not statistically significant in the case of high school students. In

contrast, there is no relationship between any of these demographic or socio-economic indicators

and the share of the population in the youngest age category.

VI. Conclusion

This paper explores the motivation behind the relocation of white households to the suburban

ring as a response to the migration of rural blacks to city centers in the decades after World War

II. The focus is on an amenity available *only* to suburban residents – namely, the ability to make

collective decisions with a homogeneous electorate, even with changes in the racial composition

of the surrounding metropolitan area. In particular, I use housing prices to infer the implicit

market value of being located in a racially homogeneous town. To address unobserved

differences in housing quality between jurisdictions, I limit my sample to Census blocks adjacent

to municipal borders. At these borders, political control changes abruptly while neighborhood

quality changes more continuously, allowing me to isolate the cost of jurisdiction-level racial diversity.

I start by comparing the housing values/rents across these borders in 1960 and 1970. I also consider the relationship between relative changes in housing prices at these borders and changes in jurisdiction-level racial composition from 1960 to 1970. In both cases, I found a strong negative relationship between housing values/rents and the black share of surrounding town, implying a 2.5 percent decline in housing values and a 5.5 percent decline in rents at the sample mean (around a 10 percentage point difference in the jurisdiction-level black share). Around half of the observed "race" effect can be attributed to the correlation between the black share and the municipality-wide median income. In other words, white households sought to avoid political compromises with black in-migrants both because of their race and their socio-economic position.

I conclude by seeking to identify a set of policy decisions that vary with a town's racial diversity, and may help account for this politically-motivated 'white flight.' To do so, I supplement the basic regression models with measures of public expenditures or inputs, and look for a change in the estimated relationship between housing prices and jurisdiction-level racial composition. I find some indication that white flight may have been in response to changes in education policy – in particular, a desire to avoid paying to educate "other people's" (read: black) children in the city.

This form of politically-motivated 'white flight' draws our attention to the potential externalities of postwar suburbanization. In the standard urban models used to analyze residential patterns (for example, Mills, 1972), there are limited possibilities for one household's location decision to impose costs on another – with the exceptions of air pollution from longer commutes,

or the aesthetic and environmental concerns about sprawl.[32] Once we consider the political

fragmentation of metropolitan areas, it is clear that the decision to move to the periphery is also

one to leave the central city. The residential location of the middle class thus, *crucially,*

determines the allocation of the metropolitan area's taxable resources. Quite early, Baumol

(1967) argued that suburbanization heightened the urban fiscal crises of the 1960s and 1970s.

More recently, Benabou (1996) has demonstrated that, with decentralized public finance,

suburbanization can lead to inequality in educational inputs between jurisdictions which, in some

cases, may reduce aggregate efficiency. Given that a large share of racial segregation at the

metropolitan area level is *between* the central city and its suburban ring, this process may help

explain why black graduation rates and labor market outcomes are lower in segregated SMSAs

today (Cutler and Glaeser, 1997). It also may help account for the fact, noted by Collins and

Margo (2000), that the negative relationship between segregation and black outcomes emerged

only in the postwar period.

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[32] Mills (1972) imagines the city existing in a featureless plane without jurisdictional boundaries. Household
location decisions thus reduce to choosing the optimal distance from the central business district. At further
distances, one must trade off higher commuting costs with lower housing prices per square foot.

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Figure 1: Defining geographic terms

Chicago: j = 1, b = 1   Evanston: j = 2, b = 1

Tract

Block i

Chicago: j = 1, b = 2   Oak Park: j = 3 , b = 2
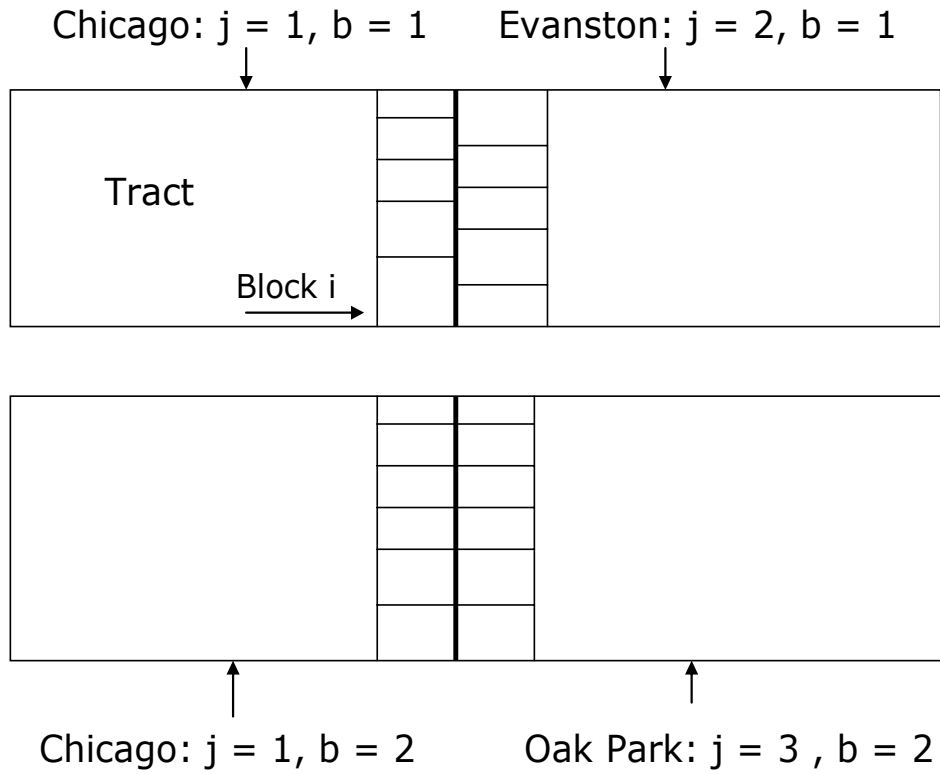
where i = block; b = border; j = jurisdiction

Figure 2: Comparing the Differential Change in Property Values at the Actual
Jurisdictional Border to a Series of Placebo Experiments, 1960-70
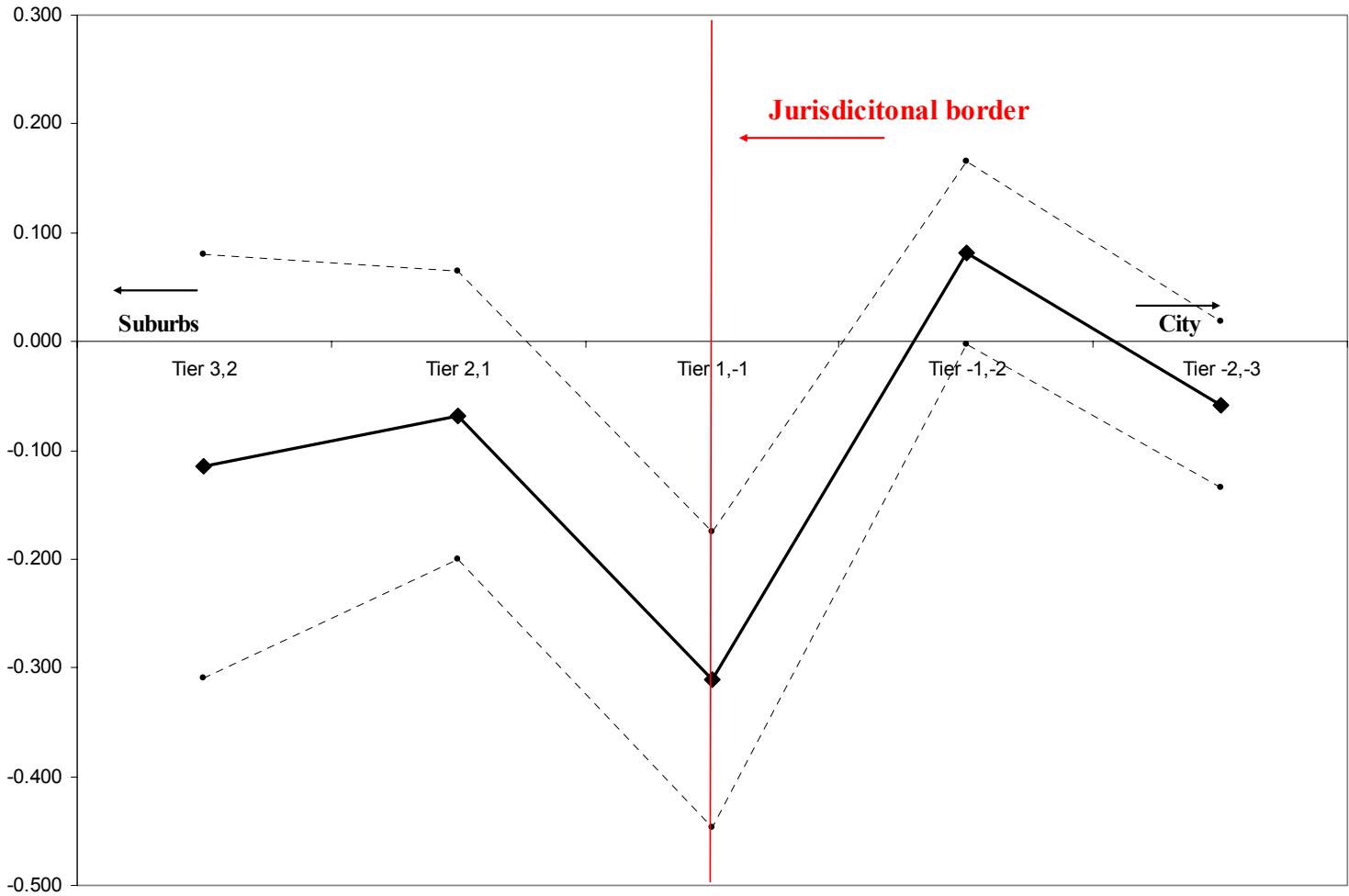
Table 1: Jurisdictional Borders to be Included in the Final Panel Sample

Region	City	Population Rank in 1960	Number of Borders
A. In sample			
Northeast	Boston	13	2
	New York[†]	1	13
	Pittsburgh	16	3
Midwest	Chicago[†]	2	6
	Cincinnati	21	1
	Cleveland	8	2
	Detroit	5	1
	St. Louis	10	1
South	Atlanta	24	1
	Washington, DC	9	1
West	Denver	23	1
	Los Angeles[†]	3	20
	San Francisco[†]	12	5
B. Not in sample			
Northeast	Baltimore	6	
	Buffalo	20	
	Philadelphia	4	
Midwest	Milwaukee	11	
	Minneapolis/St.Paul	25	
South	Dallas	14	
	Houston	7	
	Memphis	22	
	New Orleans	15	
	San Antonio	17	
West	San Diego	18	
	Seattle	19	

[†] note: In 1960, many metropolitan areas contained secondary central cities now considered by the Census Bureau to anchor their own, independent metropolitan areas. These are: Newark, NJ, Jersey City, NJ and Clifton, NJ (New York); Gary, IN (Chicago); Anaheim, CA (Los Angeles); and Oakland, CA and San Jose, CA (San Francisco).

Table 2: Jurisdiction Borders in the Pilot Sample

Metro Area	Jurisdiction 1	% black, 1960	Jurisdiction 2	% black, 1960
Boston	Boston	9.05	Brookline	0.32
	Cambridge	5.26	Somerville	0.37
Chicago	Chicago	22.89	Evanston	11.51
	Chicago	22.89	Oak Park	0.10
	Evanston	11.51	Skokie	0.24
	Oak Park	0.10	Cicero	0.01
Detroit	Detroit	28.87	Dearborn	0.01
Los Angeles	Bellflower	0.02	Lakewood	0.01
	Glendale	0.05	Burbank	0.03
	Long Beach	2.76	Bellflower	0.02
	Long Beach	2.76	Lakewood	0.01
	Los Angeles	13.51	Alhambra	0.16
	Los Angeles	13.51	Burbank	0.03
	Los Angeles	13.51	Glendale	0.05
	Los Angeles	13.51	Inglewood	0.05
	Los Angeles	13.51	Pasadena	12.53
	Los Angeles	13.51	Santa Monica	4.87
	Los Angeles	13.51	Torrance	0.02
	Norwalk	0.56	Downey	0.32
	Redondo Beach	0.03	Torrance	0.02

Table 3: Testing the Neighborhood Continuity Assumption: The Relationship between Housing Characteristics and Jurisdiction-level Racial Composition

	Coefficient on % black, jurisdiction	
	1960	1970
Dependent variables (block level)		
Share black	0.047 (0.051)	0.160* (0.108)
=1 if % >5 group quarters	-0.105 (0.097)	-0.222 (0.191)
Share single family		0.003 (0.339)
Share vacant		0.014 (0.019)
Share owner occupied		0.077 (0.214)
Border dummies?	Y	Y
N	311	275

.

Notes: Coefficients that are significant at the 15% level are marked with an *. Standard errors are clustered by "border area." Regressions are weighted by the number of housing units on the block.

Table 4: The Relationship between Housing Values and Jurisdiction-level
Demographic and Socioeconomic Characteristics, 1960

	Whole tract	Within one block				
Dependent variable = ln(value per room)						
	(1)	(2)	(3)	(4)	(5)	(6)
Jurisdiction level						
Share black	-0.418*	-0.365**	-0.329**	-0.299**	-0.308**	-0.183
	(0.253)	(0.197)	(0.173)	(0.161)	(0.166)	(0.267)
Share Hispanic				-0.145		
				(0.528)		
Gini coeff.					-0.086**	
					(0.048)	
ln(median inc)						0.157
						(0.178)
Block Level						
Share black			-0.606***	-0.580***	-0.606***	
			(0.207)	(0.163)	(0.207)	
Border dummies?	Y	Y	Y	Y	Y	Y
Block controls?	N	N	Y	Y	Y	Y
N	1863	298	298	298	298	298

Notes: Coefficients that are significant at the 5%, 10% and 15% level are marked with a ***, **, and * respectively.
Standard errors are clustered at the 'border area' level. Regressions are weighted by the number of owner-occupied units
on the block.

Table 5: The Relationship between Housing Values and Jurisdiction-level
Demographic and Socioeconomic Characteristics, 1970

	Whole tract	Within one block				
Jurisdiction level						
Share black	-0.303*** (0.142)	-0.215*** (0.092)	-0.184*** (0.092)	-0.108 (0.109)	-0.114 (0.249)	-0.329* (0.204)
Share Hispanic				-0.469*** (0.135)		
ln(median income)					0.107 (0.277)	
Share < poverty						0.697 (1.001)
Block level						
Share black			-0.164*** (0.049)	-0.124*** (0.042)	-0.173*** (0.060)	-0.134*** (0.056)
Border dummies?	Y	Y	Y	Y	Y	Y
Block controls?	N	N	Y	Y	Y	Y
N	1954	271	271	271	271	271

Notes: Coefficients that are significant at the 5%, 10% and 15% level are marked with a ***, **, and * respectively. Standard errors are clustered at the 'border area' level. Regressions are weighted by the number of owner-occupied units on the block.

Table 6: The Relationship Between Rents And Jurisdiction-Level Demographic and Socioeconomic Characteristics

	Dependent variable = ln(rents per room)							
	1960				1970			
Jurisdiction level								
Share black	-0.675***	-1.035***	-0.601***	-0.676	-0.506***	-0.362	-0.529	-1.188*
	(0.232)	(0.313)	(0.230)	(0.533)	(0.161)	(0.248)	(0.465)	(0.737)
Share Hispanic		2.031				-0.626		
		(1.472)				(0.644)		
Gini coeff.			0.037					
			(0.116)					
ln(med inc)				-0.055			-0.075	
				(0.374)			(0.434)	
Share < poverty								2.693
								(2.398)
Block Level								
Share black	3.497	3.326	3.101	2.517	0.148	0.147	0.152	0.142
	(2.912)	(3.069)	(2.826)	(2.449)	(0.457)	(0.457)	(0.463)	(0.460)
Border dummies?	Y	Y	Y	Y	Y	Y	Y	Y
Block controls?	Y	Y	Y	Y	Y	Y	Y	Y
N	180	180	180	180	193	193	193	193

Notes: Coefficients that are significant at the 5%, 10% and 15% level are marked with a ***, **, and * respectively. Standard errors are clustered at the 'border area' level. Regressions are weighted by the number of rental units on the block.

Table 7: Adding variation over-time: Changes in Housing Values/Rents and Jurisdiction-Level Racial Composition

Dependent variable	Coefficient on Share black$_j$			
	Alone	Add Share Hisp	Add ln(medinc)	Add city dummy
ln(value/room)	-0.321*** (0.132)	-0.383*** (0.164)	-0.310 (0.248)	-0.439*** (0.176)
ln(rent/room)	-0.587*** (0.180)	-0.544** (0.289)	-0.512* (0.330)	-1.157*** (0.265)
Border dummies?	Y	Y	Y	Y
Year dummies?	Y	Y	Y	Y
Block controls?	Y	Y	Y	Y
N for values	462	462	462	462
N for rents	364	364	364	364

Notes: Coefficients that are significant at the 5%, 10% and 15% level are marked with a ***, **, and * respectively. Standard errors are clustered at the 'border area' level. Regressions are weighted by the number of owner-occupied (row 1) or rental units (row 2) on the block.

Table 8: Which Public Decisions Matter? The Level and Composition of Government Expenditure

	Dependent variable = ln(value per room)				
	Compare coefficient on % black to: -0.329 (0.174)				
	(1)	(2)	(3)	(4)	(5)
Jurisdiction level					
Share black	-0.415***	-0.313**	-0.356**	-0.337***	-0.439***
	(0.147)	(0.172)	(0.181)	(0.176)	(0.198)
Gov $ per cap	-0.005				
	(0.005)				
Share from property taxes	-0.298***				
	(0.113)				
Share $ on:					
Police		0.388			
		(0.411)			
Roads			-0.050		
			(0.158)		
Parks				-0.251	
				(0.406)	
Sanitation					-0.830**
					(0.412)
Border dummies?	Y	Y	Y	Y	Y
Block controls?	Y	Y	Y	Y	Y
N	298	298	298	298	298

Notes: Coefficients that are significant at the 5%, 10% and 15% level are marked with a ***, **, and * respectively. Standard errors are clustered at the 'border area' level. Regressions are weighted by the number of owner-occupied units on the block. Data on the level and composition of government expenditures are taken from the *1957 Census of Governments*.

Table 9: Which Public Decisions Matter? Education Inputs

Dependent variable = ln(value per room)
Compare coefficient on % black to: -0.329 (0.174)

	(1)	(2)	(3)	(4)
Jurisdiction level				
Share black		-0.232 (0.361)	-5.294*** (1.661)	-3.561*** (1.028)
District level				
Pupil/teacher	-0.009** (0.005)	-0.004 (0.009)	-0.025*** (0.012)	-0.021*** (0.020)
Interaction: % black*pupil/teach			0.206*** (0.073)	0.136*** (0.046)
Share $ from property taxes				-0.259*** (0.137)
Border dummies?	Y	Y	Y	Y
Block controls?	Y	Y	Y	Y
N	287	287	287	287

Notes: Coefficients that are significant at the 5%, 10% and 15% level are marked with a ***, **, and * respectively. Standard errors are clustered at the 'border area' level. Regressions are weighted by the number of owner-occupied units on the block. Data at the school district level are taken from the *1957 Census of Governments*, with the exception of jurisdictions in MA. MA data are from the *Biennial Survey of Education*.

Table 10: Which Public Decisions Matter? Evidence from Block-level Age
Distributions

	1970		
	% Age 0-4	% Age 5-13	% Age 14-17
Jurisdiction level			
Share black	0.026 (0.095)	-0.157* (0.104)	-0.051 (0.049)
ln(median inc)	0.046 (0.100)	0.079 (0.086)	-0.010 (0.039)
Share < poverty	0.052 (0.496)	0.785** (0.412)	0.083 (0.195)
Block level			
Share single family	0.066*** (0.025)	0.030 (0.019)	0.003 (0.021)
Share owner occupied	-0.063** (0.037)	0.078*** (0.034)	0.055*** (0.020)
=1 if > 5% in Group quarters	0.018** (0.010)	0.043 (0.031)	-0.004 (0.008)
Border dummies?	Y	Y	Y
N	328	328	328

Notes: Coefficients that are significant at the 5%, 10% and 15% level are marked with a ***, **, and * respectively.
Standard errors are clustered at the 'border area' level. Regressions are weighted by the number of residents on each
block.

Appendix Table 1: Means and Standard Deviations at jurisdiction- or block-level and for differences across borders

	1960		1970	
	All jurisdictions	Difference across borders	All jurisdictions	Difference across borders
Jurisdiction level				
Share Black	0.057 (0.078)	0.084 (0.081)	0.087 (0.114)	0.118 (0.119)
Share Hispanic	0.042 (0.039)	0.032 (0.033)	0.099 (0.067)	0.044 (0.045)
Gini coefficient	0.541 (0.199)	0.157 (0.253)	---	---
Median income, $ 2000	43,270 (5,481)	6,271 (4,588)	51,106 (6,805)	7,388 (5,444)
Share < poverty	---	---	0.065 (0.027)	0.037 (0.023)
Block level				
Share Black	0.018 (0.078)		0.106 (0.255)	
=1 if > 5% in Group quarters	0.045 (0.208)		0.049 (0.216)	
Share single fam			0.639 (0.351)	
Share vacant			0.028 (0.047)	
Share owner occup			0.564 (0.326)	

Notes: Means are presented in the first row, with standard deviations below in parentheses. When excluding the Los Angeles-Inglewood border in 1970, the mean share black at the block level is 0.051 (s.d. = 0.184). See p. 16 in the text for a discussion of this anomalous border.