

ONLINE APPENDIX

The Effects of the 1930s HOLC “Redlining” Maps

by Daniel Aaronson, Daniel Hartley and Bhashkar Mazumder

Appendix

Description of HOLC grades from an HOLC document at the National Archives

“The purpose of the Residential Security Map is to graphically reflect the trend of desirability in neighborhoods from a residential view point. Four classifications are used: First, Second, Third, and Fourth Grades. The code letters and colors are A, B, C, and D, and Green, Blue, Yellow, and Red respectively. In establishing the grade of an area such factors as these are considered: intensity of the sale and rental demand, percentage of home ownership, age and type of building; economic stability of area; social status of the population, sufficiency of public utilities, accessibility of schools, churches, and business centers; transportation methods; topography of the area, and the restrictions set up to protect the neighborhood. The price level of the homes is not the guiding factor.

The First Grade or A areas are “hot spots”; they are not yet fully built up. In nearly all instances they are the new well planned sections of the city, and almost synonymous with the areas where good mortgage lenders with available funds are willing to make their maximum loans to be amortized over a 10-15 year period—perhaps up to 75-80% of the appraisal. They are homogeneous; in demand as residential locations in “good times” or “bad”; hence on the upgrade.

The Second grade or B areas, as a rule, are completely developed. They are like a 1935 automobile—still good, but not what the people are buying today who can afford a new one. They are the neighborhoods where good mortgage lenders will have a tendency to hold loan commitments 10-15% under the limit. The Third grade or C areas are characterized by age, obsolescence, and change of style; expiring restrictions or lack of them; infiltration of a lower grade population; the presence of influences which increase sales resistance such as inadequate transportation, insufficient utilities, perhaps heavy tax burdens; poor maintenance of homes, etc. “Jerry” built areas are included, as well as neighborhoods lacking homogeneity. Generally, these areas have reached the transition period. Good mortgage lenders are more conservative in the Third grade or C areas and hold loan commitments under the lending ratio for the A and B areas. The Fourth grade or D areas represent those neighborhoods in which the things that are now taking place in the C neighborhoods, have already happened. They are characterized by detrimental influences in a pronounced degree; undesirable population or an infiltration of it. Low percentage of home ownership, very poor maintenance, and often vandalism prevail. Unstable incomes of the

people and difficult collections are usually prevalent. The areas are broader than the so-called slum districts. Some mortgage lenders may refuse to make loans in these neighborhoods and others will lend only on a conservative basis.”

More Detail on Construction of Census Housing Variables

Whenever possible, we attempt to use consistently defined census variables from 1910 to 2010. Typically, this means relying on the version of the data cleaned and coded by IPUMS. However, we must occasionally deviate from IPUMS with regard to house values, monthly contract rent, and vacancy rates. For 1930 and 1940, we trim the bottom and top 1 percent of the national house value and rent distribution separately for each census out of concern about extreme outliers. In 1950, census tract tabulations report monthly contract rents and house values in bins. We use these bins to calculate a mean by assuming that the mean of each bin is equal to its midpoint. For the highest bin, we assume that its mean is equal to 1.5 times its lower bound. We repeat this procedure for 1960 house values. In 1970 and 1980, we calculate mean house value and mean monthly contract rent by dividing the aggregates of these variables by the number of owner-occupied units with house value reported and by the number of renter-occupied units with non-zero contract rent, respectively. For our vacancy rates, we use number of “dwelling” units in 1940 and number of “housing” units in 1990.

HOLC Grade Determinants

Appendix Table A7 shows a series of regressions that associate neighborhood grades with pre-HOLC 1930 housing and demographic characteristics, as well as changes between 1920 and 1930 when available. Columns (1) and (2) report marginal effects from an ordered logit where D is coded as 4 and A is coded as 1. Columns (3) to (8) are marginal effects of the probability of moving one grade lower: i.e. from A to B, from B to C, or from C to D, respectively. All specifications include city fixed effects and are weighted by the log of neighborhood population in 1930. Standard errors are clustered at the city level.

Like Hillier (2005) and Fishback (2014), who were only able to examine single cities, we find a clear monotonic relationship between grades and nearly all the key economic and housing covariates that are available in the census whether considered individually or, as in the table,

simultaneously.¹ Unsurprisingly, a higher homeownership rate, log home value, log rent, occupational earnings, radio ownership, and literacy are associated with a higher HOLC grade. To take one example, the results in column (2) imply that a 10 percentage point increase in homeownership rates raises the probability of a being assigned one letter grade higher by 7.6 (0.7) percentage points. These results are unsurprising because they conform with what we know about the appraisal process from the detailed forms, called area description files (ADF), that were recorded at the time. The ADFs consistently document that homeownership, vacancy, housing age, housing quality, and economic and demographic characteristics of neighbors were key factors used to grade neighborhoods.

Appendix Table A7 also shows that the marginal effect of most of our observable housing and employment variables is roughly the same for grade determination between B versus C (columns 5 and 6) and C versus D (columns 3 and 4). For example, in the sample of C and D neighborhoods, a 10 percentage point increase in the homeownership rate increases the probability of a C grade by 4.5 (0.5) percentage points. Likewise, in the C-B sample, a 10 percentage point increase in the homeownership rate increases the probability of a B grade by 4.8 (0.6) percentage points.

The case of race is somewhat more complicated. Similar to previous studies, we show that a neighborhood is more likely to be graded D than C if the African-American share is higher, even after conditioning on a set of housing and economic characteristics and city fixed effects. To highlight the pivotal role of race in grading D neighborhoods, Appendix Figure A1 shows the ADF for a particular neighborhood in Tacoma, Washington which was graded D. The notes at the bottom of the document clarify: “This might be classed as a ‘low yellow’ area if not for the presence of the number of Negroes and low class foreign families who reside in the area.” It is worth noting that the fraction of African Americans in this Tacoma neighborhood was 2 percent. However, interestingly, the share African-American has the opposite effect when we examine grade determination among A versus B neighborhoods and B versus C neighborhoods. That is, B

¹ We find weaker evidence that recent changes in housing and household characteristics between 1920 and 1930 affected HOLC grades. These coefficients are suppressed in Table 2 for space but are available on request. However, it is plausible that changes between 1920 and 1930 are not the correct time frame for evaluating appraisals that were taking place in the mid-1930s.

grades are more likely than C grades, and A grades are more likely than B grades, in areas with a higher share of African Americans.

Examples of race as a pivotal factor for HOLC grades in Area Description Files (ADFs):

- Berkeley, Area 2, C grade: *“Northeastern part of area, north of University, could be classed as High Yellow, but for infiltration of Orientals and gradual infiltration of Negroes form south to north.”*
- Brooklyn, Bedford-Stuyvesant, Area 8, D grade: *“Colored infiltration a definitely adverse influence on neighborhood desirability although Negroes will buy properties at fair prices and usually rent rooms.”*
- Oakland, Piedmont, Area 14, B grade: *“Some parts of this area would be considered only High Yellow but for the rigid restrictions existing in Piedmont as to type of new construction and also the fact that there are no Negroes or Asiatics allowed in the city limits.”*
- Richmond, VA, Area 7, C grade: *“Respectable people but homes are too near negro area D2”*
- Baltimore, Area 6, C grade: *“No immediate danger of negro encroachment, but there is a heavy concentration of negroes in the section adjoining.”*
- Warren, Area 8, C grade: *“Section is “killed” by influx of negroes from D-3 to attend Francis Willard School in C-8”*
- Youngstown, Area 3, D-grade: *“Evergrowing influx of negroes and low class Jewish in the westerly end. “*

City Heterogeneity

We next document significant heterogeneous effects across cities. In addition to its descriptive value, the variation in the magnitude of the causal effects has the potential to shed light on possible mechanisms. That said, there are some clear limitations to cutting the data by city. Many of our 149 cities have too few D-C and C-B boundaries to reliably estimate a city-specific effect. Consequently, we limit this analysis to cities with at least 5 D-C or C-B borders. For the 1950-1980 and 1990-2010 periods, that allows us to produce estimates for up to 51 and 80 cities, respectively.² Related, constructing comparison boundaries within a specific city has proven infeasible given the limited number of potential boundaries. Instead, we examine treated

² The precise number of cities depends on the outcome and the boundary type. The number of boundaries per city are shown in Appendix Table A8.

boundaries and assume that there are no effects on the comparison boundaries based on the national evidence.

Those important caveats aside, we find the D-C gaps in share African American between 1950 and 1980 (Appendix Table A9 column 1) vary from 3 percentage points in Chicago to 9 percentage points in St. Louis to 21 percentage points in Detroit, to take a few large Midwestern cities where the estimates are relatively more precise as examples. The comparable gaps in some Southern and Rust Belt cities (Birmingham, AL; Columbus, OH; Erie, PA; Evansville IN, Lexington KY; Mobile, AL and Toledo, OH) exceed 40 percentage points. By 1990 to 2010, these gaps have fallen considerably but some of the same cities continue to have the largest racial gaps along the D-C border. Along the C-B boundaries (Appendix Tables A9 and A10, column 2), we tend to see the largest African American share effects among Northeastern and Midwest cities, including St. Louis, New York, and Philadelphia. Appendix Tables A9 and A10 also report similar sized variation in city-specific estimates of homeownership, house values, and rent.

We considered several possible sources of this heterogeneity but, in the end, have been unable to find a compelling explanation. First, using 1930 county-level data on banks per capita, we tested whether larger HOLC effects appear in cities with less lending sector competition and therefore possibly greater banker discretion.³ Second, we examined whether the coarseness of boundaries in a city influenced the size of the effects. For example, perhaps cities which had fewer borders, like Chicago and its vast swath of red surrounded by a ring of yellow (Figure 2), were less able to use the maps to promote lending practices. Third, we explored whether the effects differed by city size. In all three cases, we found no consistent patterns.⁴

Lastly, the drawing of the maps and their aftermath coincide with the Great Migration of Southern Blacks to Northern cities. Therefore, we considered whether our race results in particular might have been influenced by this major historical event. Perhaps cities where there were large inflows of African Americans were more prone to reacting through discriminatory practices. To address this possibility we use our city estimates for 1950-1980 and 1990-2010 and examine

³ We thank Price Fishback for the county bank data. It is available here: <https://econ.arizona.edu/weather-demography-economy-and-new-deal-county-level-1930-1940>. We correlated these measures with each of our outcomes for each border type at long time intervals.

⁴ Along the C-B borders there were some outcomes in some periods where the differences were statistically significant by city size, but these also could have been due to chance.

whether the gaps in the share African American across borders were systematically different across Northern cities depending on African American inflow during the Great Migration. We found mixed patterns depending on the border type and years considered. The most compelling evidence was a statistically significant negative correlation between Black inflow and White population density gaps along D-C borders, a result that appears consistent with Boustan (2010). However, this association does not translate into a statistically significant correlation between Great Migration inflows and our estimated D-C gaps in the share of African Americans.

Appendix Figure A1: Area Description File for Tacoma, Washington

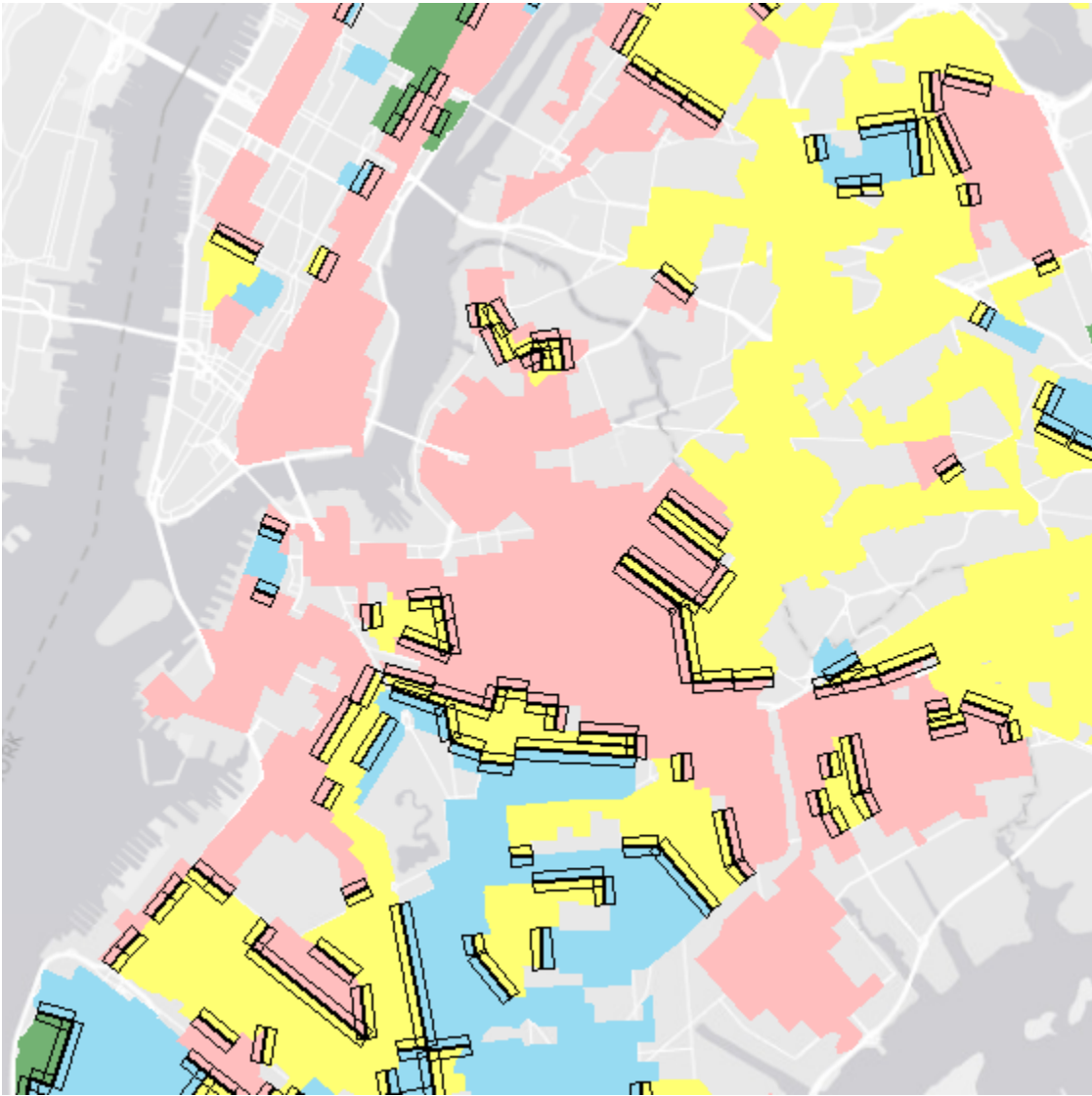
FORM 8
10-1-37

AREA DESCRIPTION - SECURITY MAP OF Tacoma

1. AREA CHARACTERISTICS:
 - a. Description of Terrain. Low lying level.
 - b. Favorable Influences. Schools, churches, stores and transportation conveniently available.
 - c. Detrimental Influences. Unimproved streets - Heterogeneous population.
 - d. Percentage of land improved 50 %; e. Trend of desirability next 10-15 yrs. Static
2. INHABITANTS:
 - a. Occupation Laborers; b. Estimated annual family income \$ 1000 to \$ 1800
 - c. Foreign-born families few %; American born predominating; d. Negro Yes; 2 %
 - e. Infiltration of Lower classes slowly; f. Relief families Many
 - g. Population is increasing Slowly; decreasing ----; static ----
3. BUILDINGS:

	PREDOMINATING	90 %	OTHER TYPE	10 %	OTHER TYPE	%
a. Type	<u>4 & 5 room</u>		<u>Miscellaneous</u>			
b. Construction	<u>frame</u>					
c. Average Age	<u>15</u> Years		_____	_____	_____	_____
d. Repair	<u>poor to fair</u>					
e. Occupancy	<u>95</u> %		_____ %		_____ %	
f. Home ownership	<u>50</u> %		_____ %		_____ %	
g. Constructed past yr.	<u>None</u>					
h. 1929 Price range	<u>\$ 1000 to \$2500</u>	<u>100</u> %	\$ _____	<u>100</u> %	\$ _____	<u>100</u> %
i. 1933 Price range	<u>\$ 500 to \$1500</u>	<u>60</u> %	\$ _____	_____ %	\$ _____	_____ %
j. 1937 Price range	<u>\$ 800 to \$2000</u>	<u>80</u> %	\$ _____	_____ %	\$ _____	_____ %
k. Sales demand	<u>\$ 1500 - fair</u>		\$ _____		\$ _____	
l. Activity	<u>fair</u>					
m. 1929 Rent range	<u>\$ 10 to \$25</u>	<u>100</u> %	\$ _____	<u>100</u> %	\$ _____	<u>100</u> %
n. 1933 Rent range	<u>\$ 5.00 to \$12</u>	<u>50</u> %	\$ _____	_____ %	\$ _____	_____ %
o. 1937 Rent range	<u>\$ 12 to \$20</u>	<u>95</u> %	\$ _____	_____ %	\$ _____	_____ %
p. Rental demand	<u>\$ 15 good</u>		\$ _____		\$ _____	
q. Activity	<u>good</u>					
4. AVAILABILITY OF MORTGAGE FUNDS: a. Home purchase limited; b. Home building limited
5. CLARIFYING REMARKS: This might be classed as a 'Low Yellow' area were it not for the presence of the number of Negroes and low class Foreign families who reside in the area. Lot values run from \$2.00 to \$5.00 per front foot.
6. NAME AND LOCATION Tacoma SECURITY GRADE D AREA NO. 7

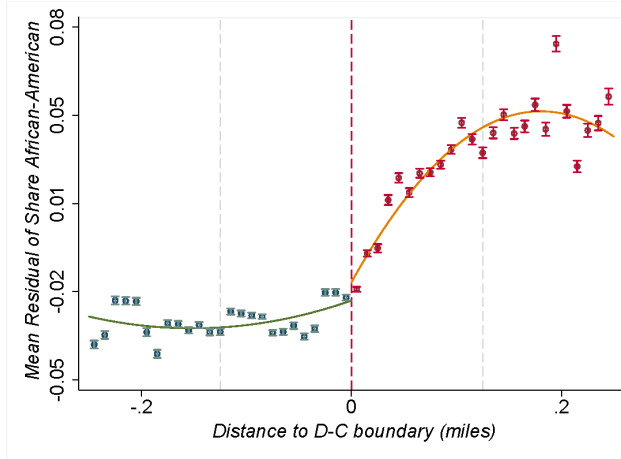
Appendix Figure A2: Boundary Buffer Zones for New York City



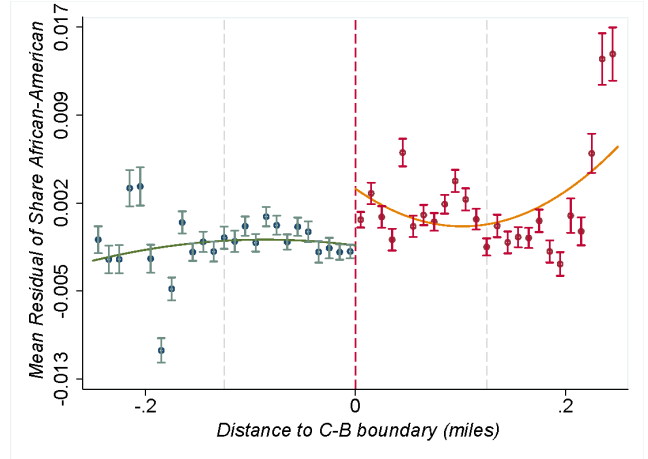
Notes: This map provides a visual depiction of the “boundary buffer zones” in part of New York City that form the main unit of our analysis. Areas shaded in red, yellow, blue, and green constitute D, C, B, and A graded neighborhoods. The thick black lines denote straight-line neighborhood boundaries that are at least 1/4 mile in length. The lighter black lines outline the 1/4-mile buffer zones surrounding each boundary.

Appendix Figure A3: Distance Plots around HOLC Borders, 1930

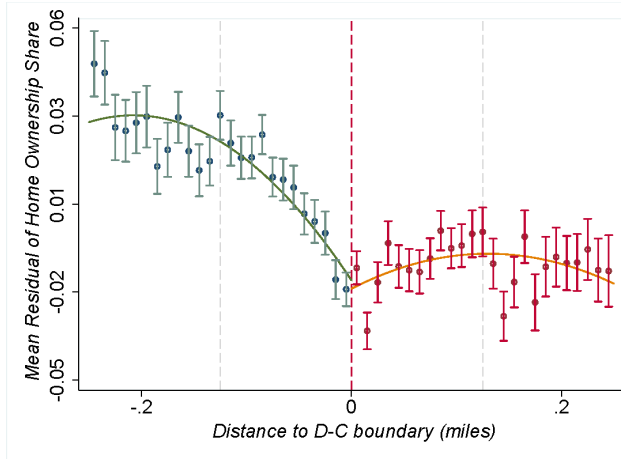
Panel A: African American Share, D-C



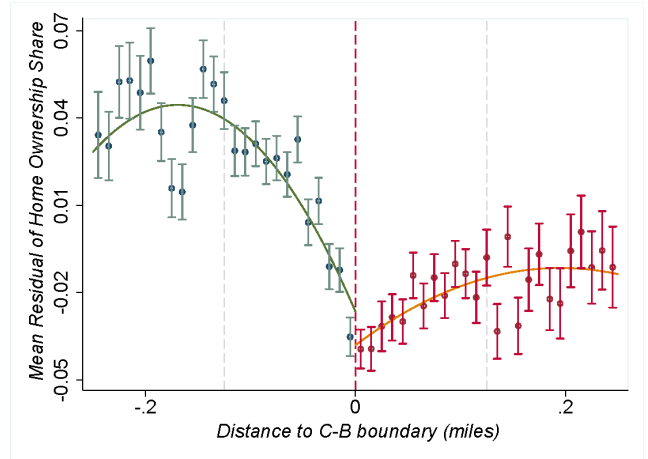
Panel B: African American Share, C-B



Panel C: Home Ownership, D-C

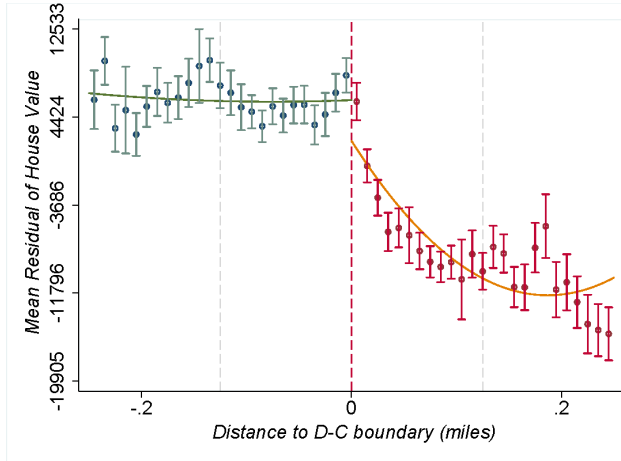


Panel D: Home Ownership, C-B

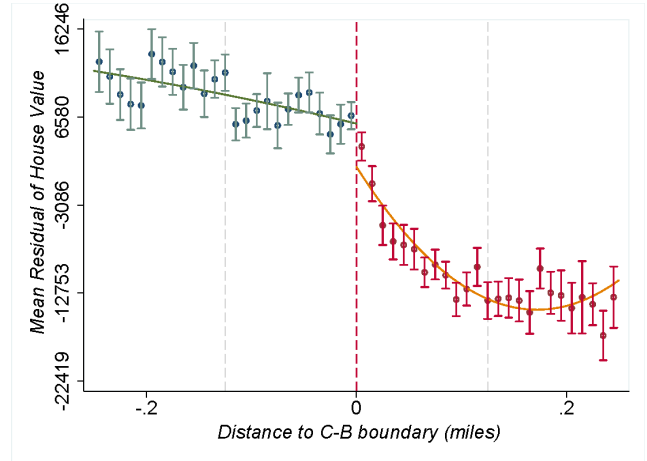


Appendix Figure A3: Distance Plots around HOLC Borders, 1930, continued

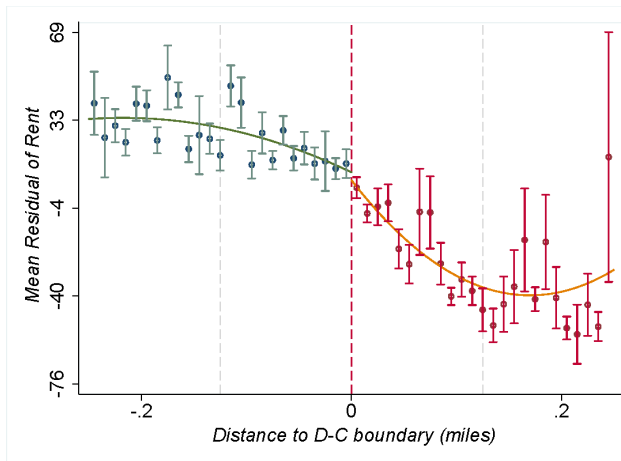
Panel E: House Values, D-C



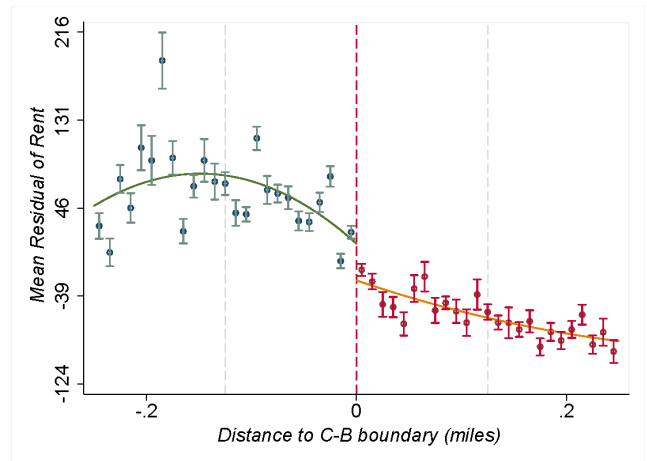
Panel F: House Values, C-B



Panel G: Rent, D-C

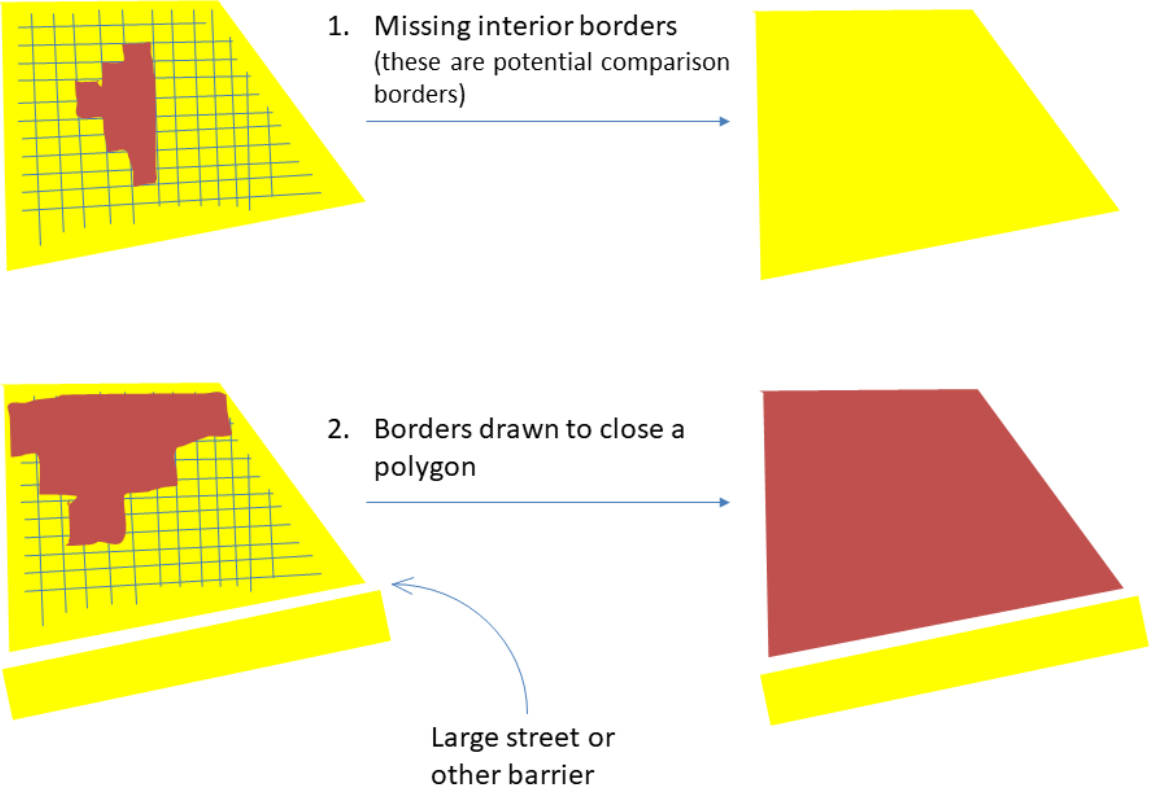


Panel H: Rent, C-B

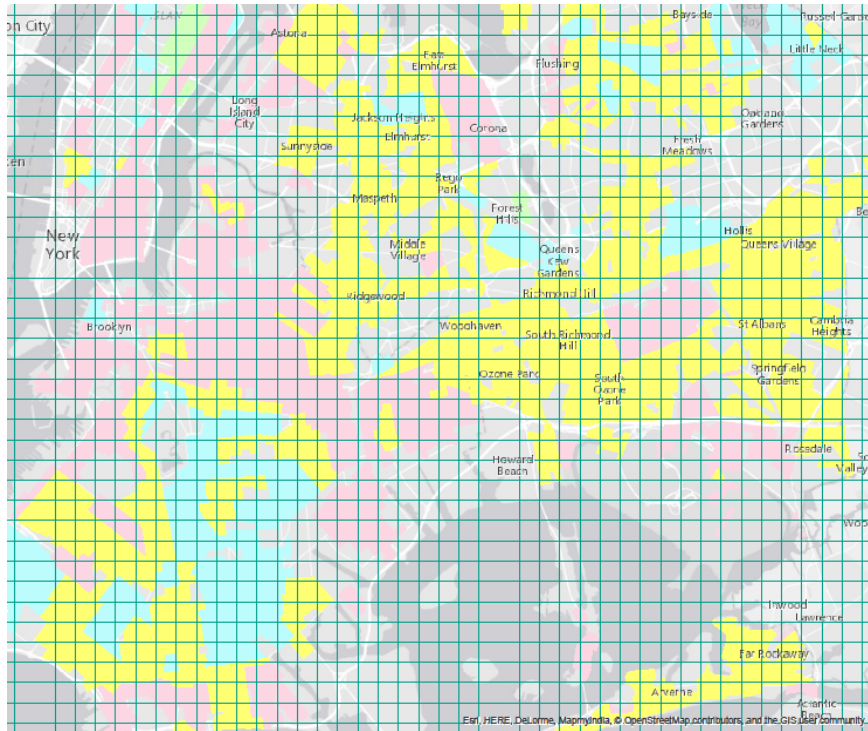


Notes: These plots illustrate the mean outcome at increments of 1/100 of a mile from an HOLC boundary (the vertical red dotted line). Left (right) of the boundary are the higher (lower) graded neighborhood. Each distance plot was constructed using geocoded individual-level data from the full-count 1930 Census and is regression-adjusted to account for border fixed effects.

Appendix Figure A4: Hypothetical Examples of Missing and Misaligned Borders



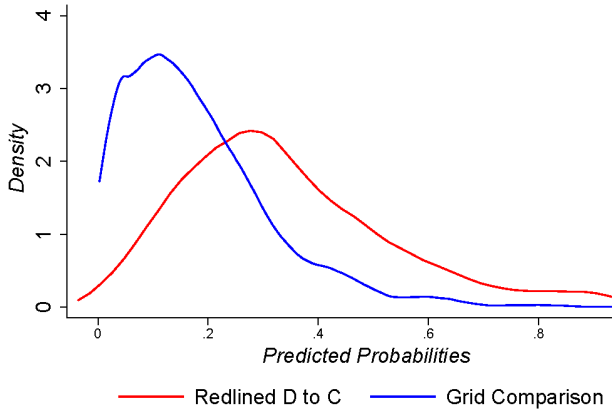
Appendix Figure A5: Example of Grid Placed over New York City



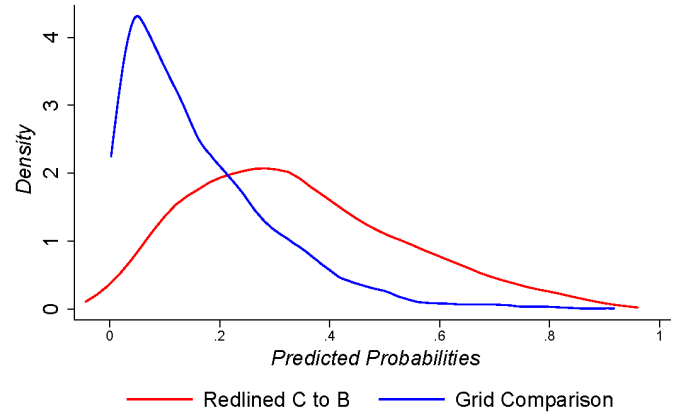
Notes: The above map of NYC depicts the initial step in the construction of a set of non-HOLC “grid” comparison boundaries that are weighted to resemble our treated HOLC boundaries before the maps were drawn. To construct our grid boundaries, we drew 1/2-mile by 1/2-mile grids over HOLC cities. We then constructed 1/4-mile buffer zones around each line segment that did not overlap with an HOLC boundary. See Figure A1 for an illustration of these boundary buffer zones.

Appendix Figure A6: Distribution of Propensity Scores and Effects of Re-weighting

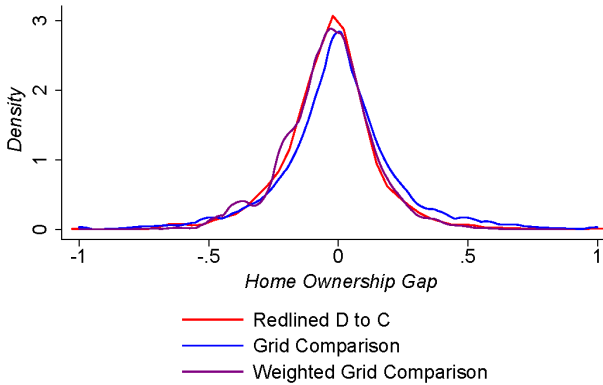
Panel A: Propensity Score Distribution, D-C Boundaries



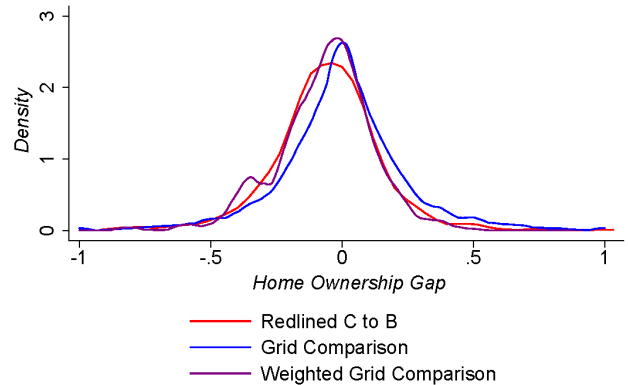
Panel B: Propensity Score Distribution, C-B Boundaries



Panel C: Distributions of 1930 Home Ownership Gaps, D-C Boundaries



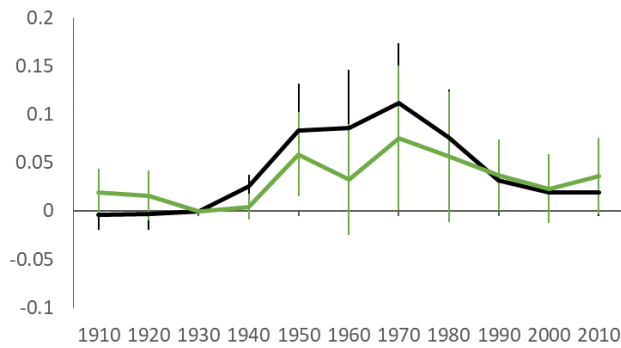
Panel D: Distributions of 1930 Home Ownership Gaps, C-B Boundaries



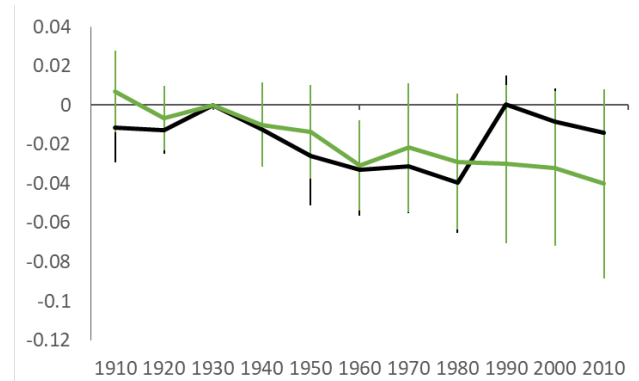
Notes: Panels A and B are kernel density plots of our propensity score distributions for D-C and C-B boundaries, respectively. Panels C and D are kernel density plots of the distribution of the 1930 home ownership gaps across D-C and C-B boundaries. In panels C and D, propensity scores are used to weight the grid comparison boundaries (the purple line) such that they mimic the treated (HOLC) D-C and C-B boundaries. Propensity scores are estimated using full-count Census data from 1910, 1920, and 1930.

Appendix Figure A7: Triple Difference D-C Estimates Using Grid and Same Grade Comparisons

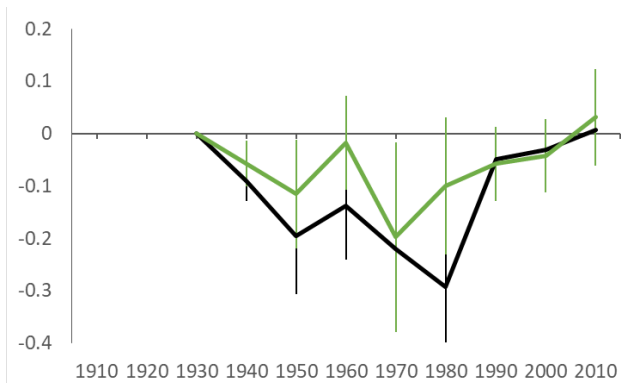
Panel A: Share African American



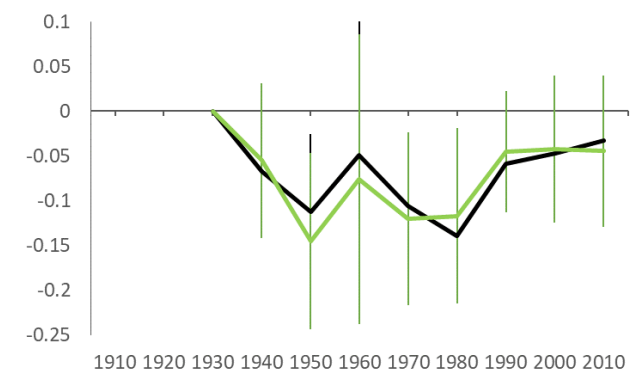
Panel B: Home Ownership



Panel C: Log House Values



Panel D: Log Rent

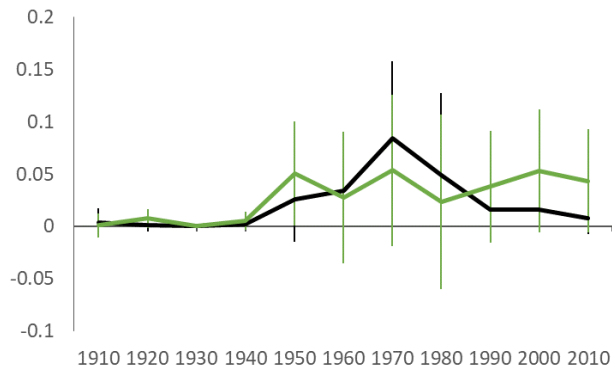


— Grid — Same Grade

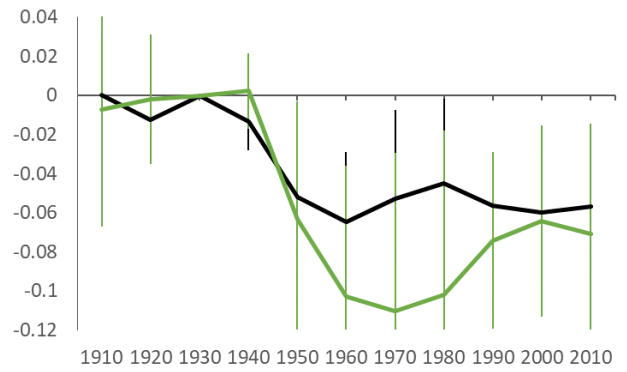
Notes: These figures show triple-difference estimates (treatment minus comparison) using our grid (black) and same-grade (green) comparison borders. The same grade comparisons are based on HOLC boundaries between neighborhoods that received the same grades (D-D, C-C, and B-B). See the text for more detail and the notes to Figure 5. The vertical bands represent 95% confidence intervals.

Appendix Figure A8: Triple Difference C-B Estimates Using Grid and Same Grade Comparisons

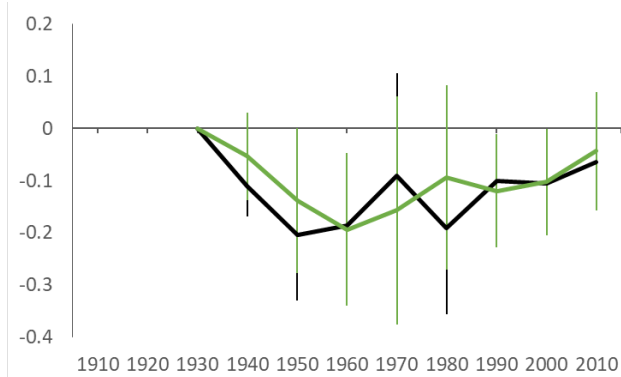
Panel A: Share African American



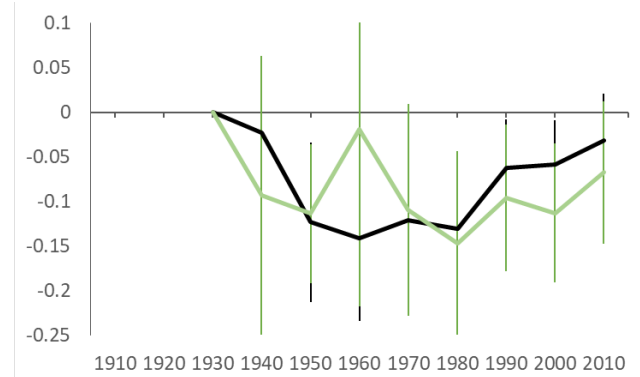
Panel B: Home Ownership



Panel C: Log House Values



Panel D: Log Rent

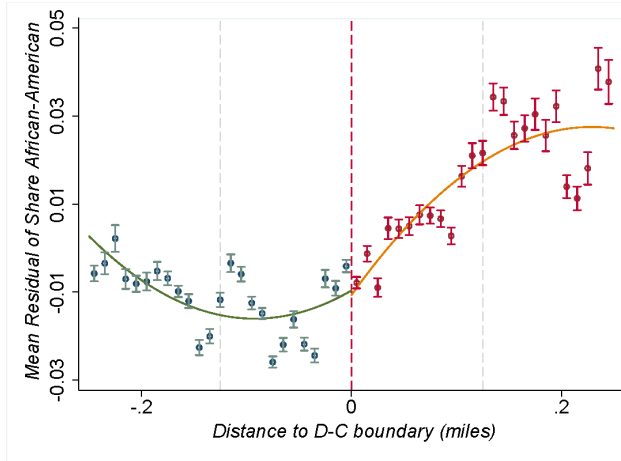


— Grid — Same Grade

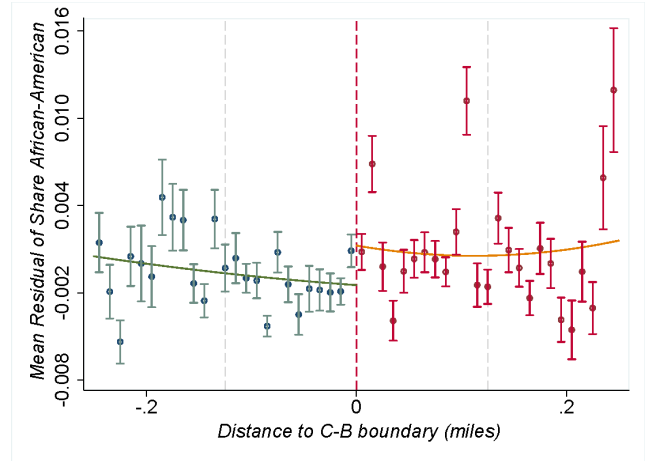
Notes: See notes to Appendix Figure A7.

Appendix Figure A9: Distance Plots around HOLC Borders Using Low Propensity Treated, 1930, African American Share and Home Ownership

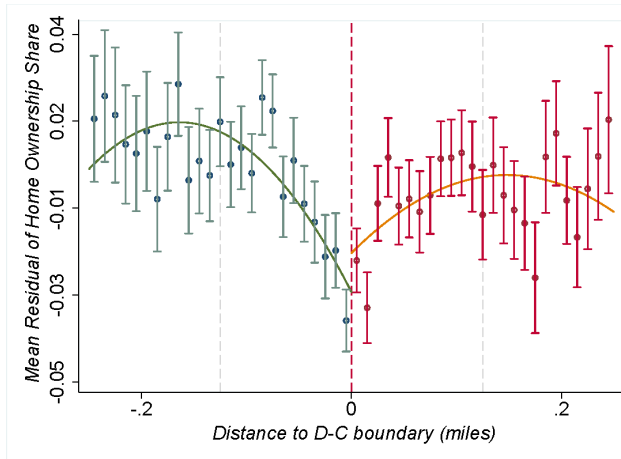
Panel A: African American Share, D-C



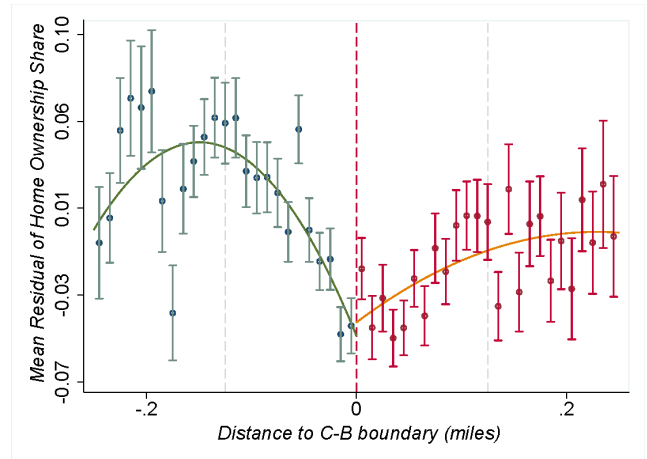
Panel B: African American Share, C-B



Panel C: Home Ownership, D-C

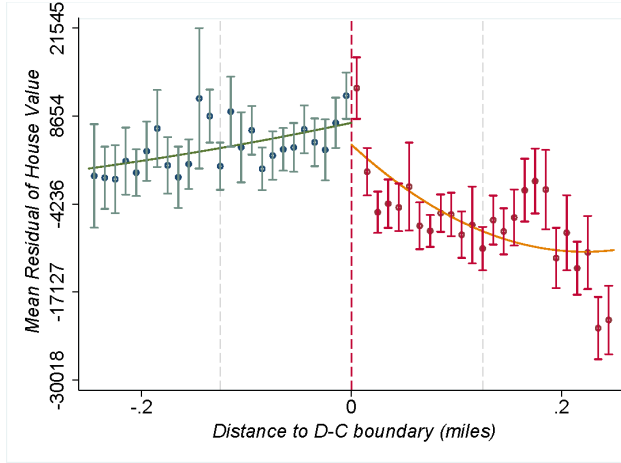


Panel D: Home Ownership, C-B

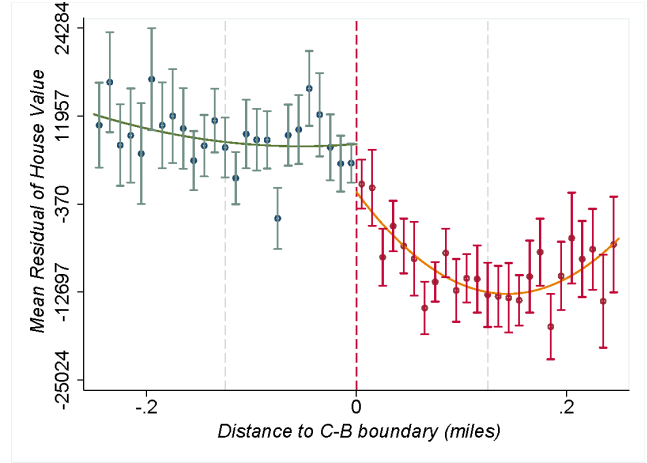


Appendix Figure A10: Distance Plots Around HOLC Borders Using Low Propensity Treated, 1930, House Values and Rent

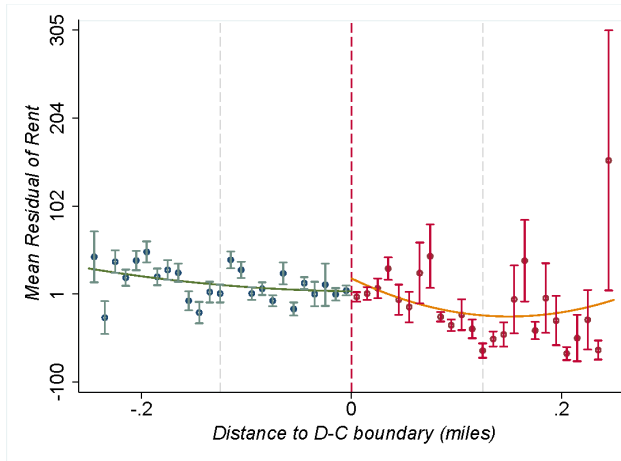
Panel E: House Values, D-C



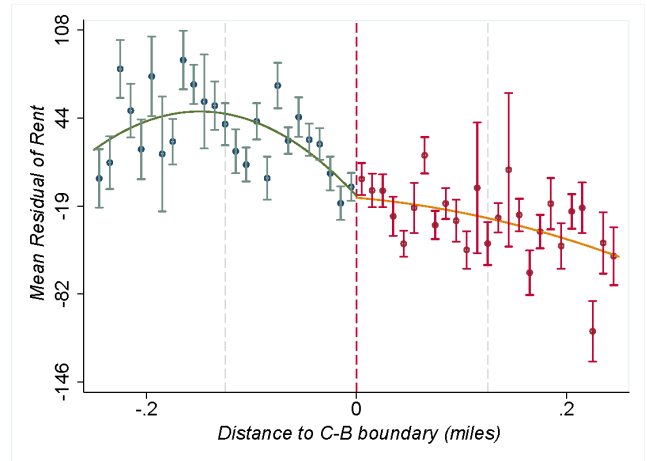
Panel F: House Values, C-B



Panel G: Rent, D-C



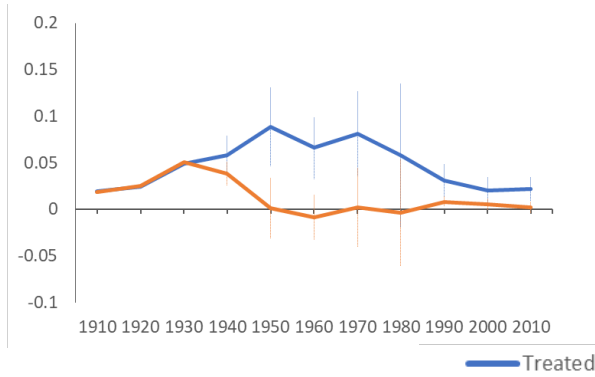
Panel H: Rent, C-B



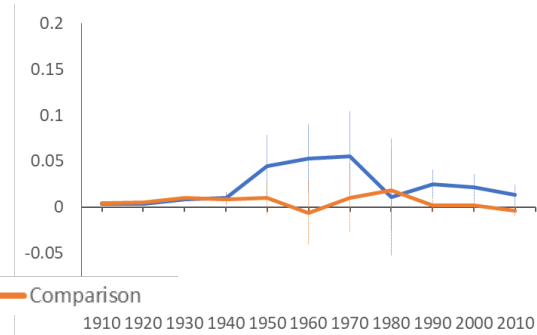
Note: See notes to Appendix Figure A3.

Appendix Figure 11: Additional Robustness Checks, African American Share

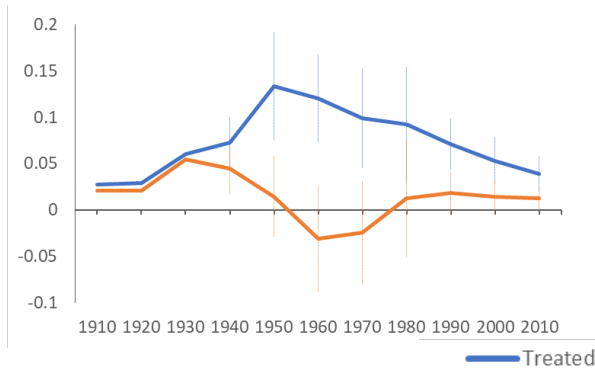
Panel A: 1/8th mile Boundaries, D-C



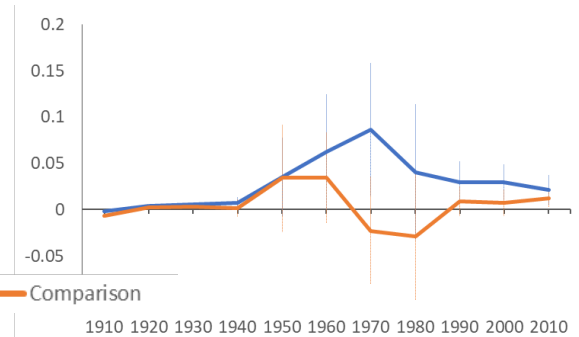
Panel B: 1/8th mile Boundaries, C-B



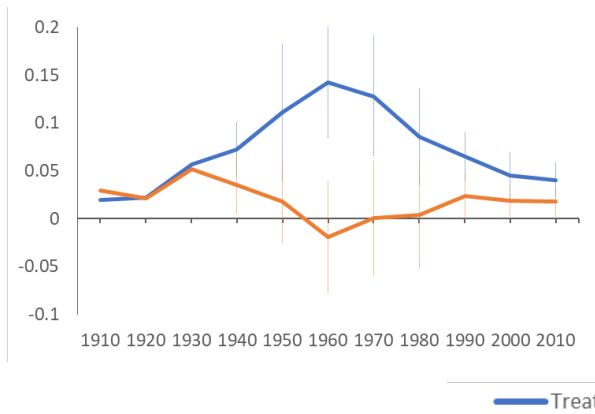
Panel C: High Geocoding Rate Cities, D-C



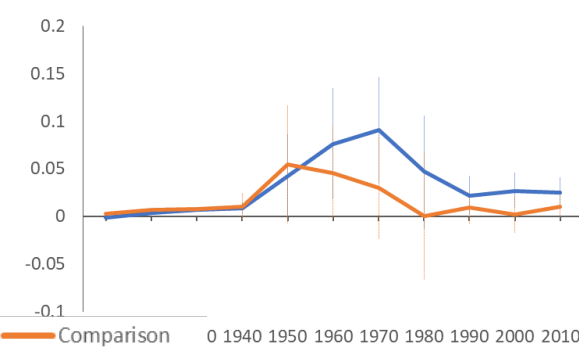
Panel D: High Geocoding Rate Cities, C-B



Panel E: Excluding Trains and Rivers, D-C



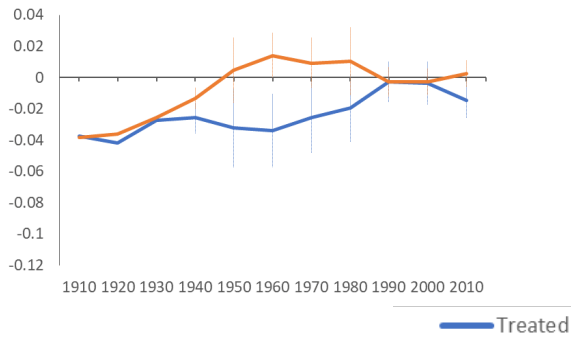
Panel F: Excluding Trains and Rivers, C-B



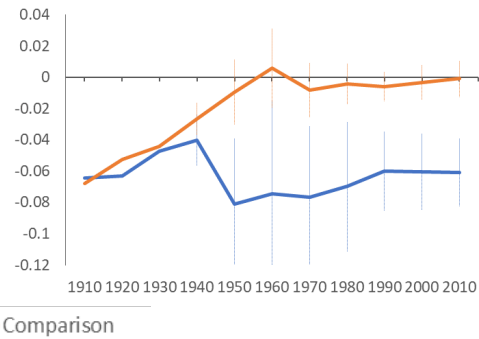
Notes: In Panels A and B, buffer zones are drawn 1/8 (rather than 1/4) mile around boundaries. In Panels C and D, we select the subset of cities that had a geocoding match rate above the median (59.3 percent) in 1920. In Panels E and F, we exclude boundaries that overlap with trains and rivers. Our rivers and trains shapefiles were obtained from Esri, Geospatial at UCLA and Jeremy Atack of Vanderbilt University, respectively.

Appendix Figure A12: Additional Robustness Checks, Home Ownership

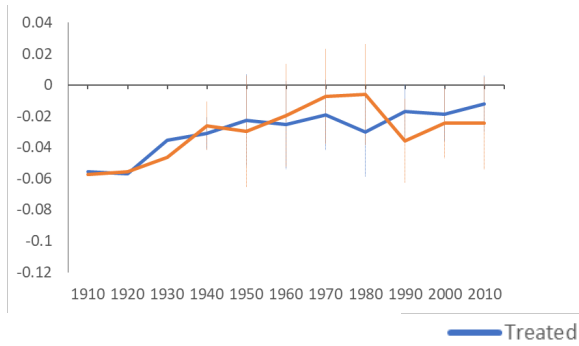
Panel A: 1/8th mile Boundaries, D-C



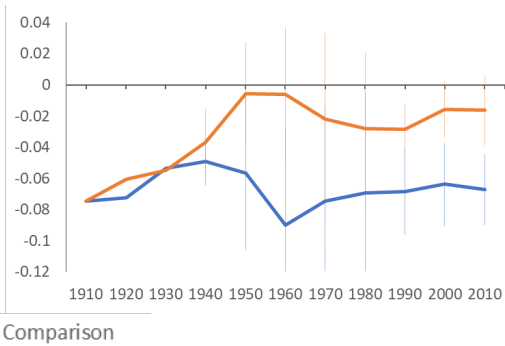
Panel B: 1/8th mile Boundaries, C-B



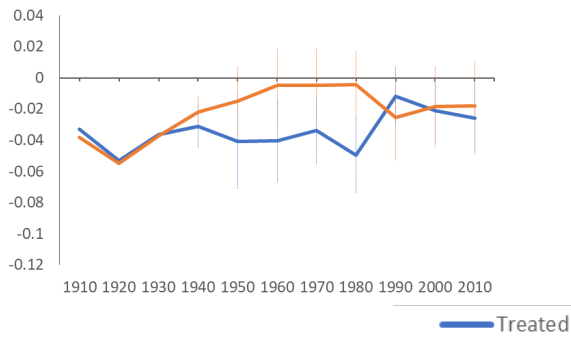
Panel C: High Geocoding Rate Cities, D-C



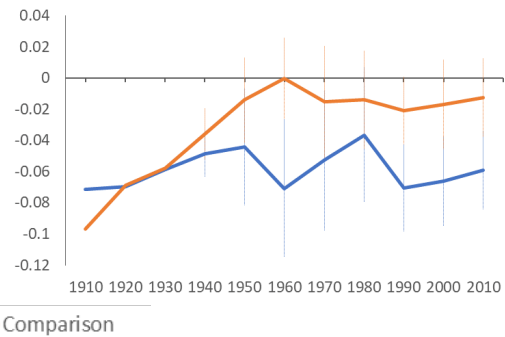
Panel D: High Geocoding Rate Cities, C-B



Panel E: Excluding Trains and Rivers, D-C



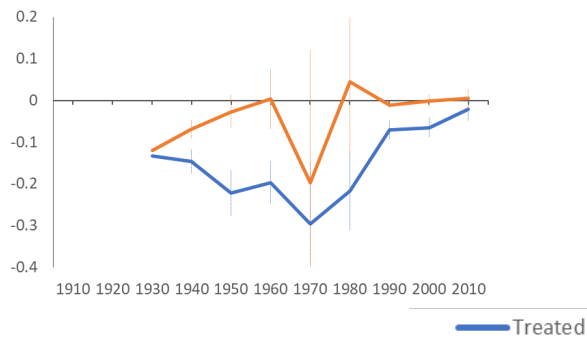
Panel F: Excluding Trains and Rivers, C-B



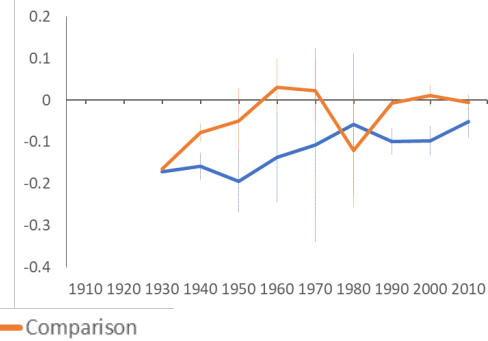
Notes: See notes to Appendix Figure A11.

Appendix Figure A13: Additional Robustness Checks, House Values

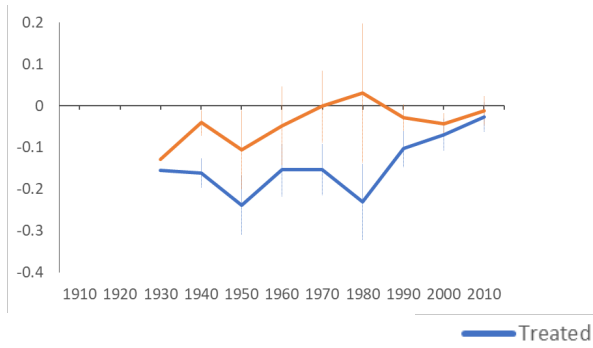
Panel A: 1/8th mile Boundaries, D-C



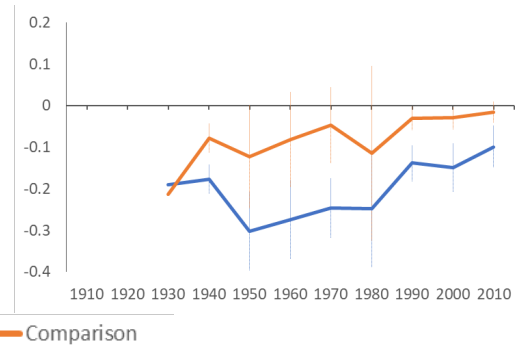
Panel B: 1/8th mile Boundaries, C-B



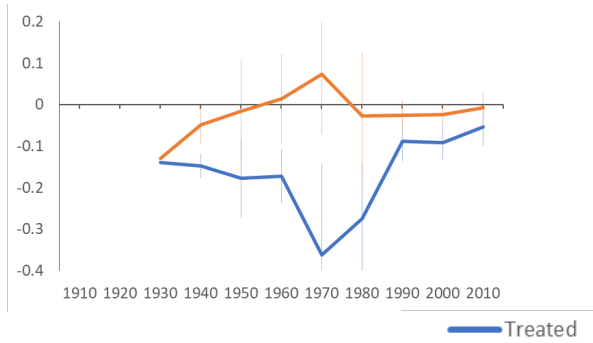
Panel C: High Geocoding Rate Cities, D-C



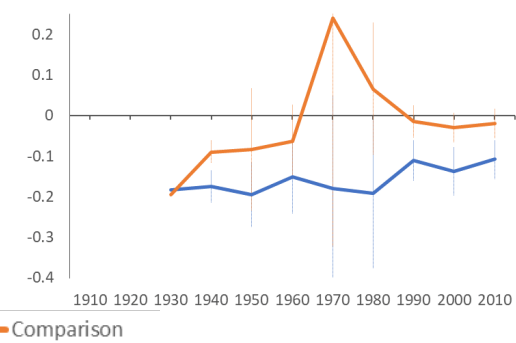
Panel D: High Geocoding Rate Cities, C-B



Panel E: Excluding Trains and Rivers, D-C



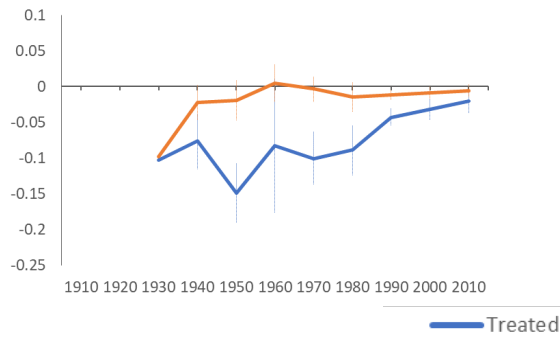
Panel F: Excluding Trains and Rivers, C-B



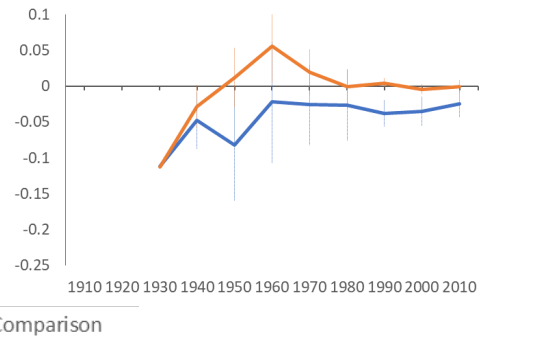
Notes: See notes to Appendix Figure A11.

Appendix Figure A14: Additional Robustness Checks, Rent

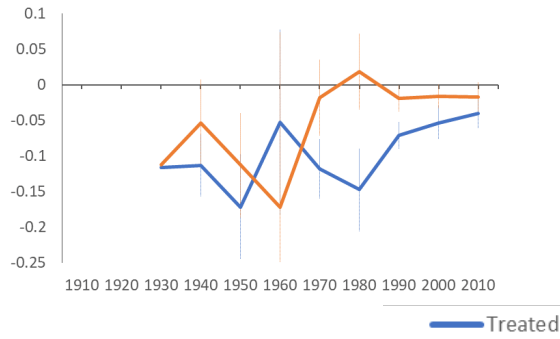
Panel A: 1/8th mile Boundaries, D-C



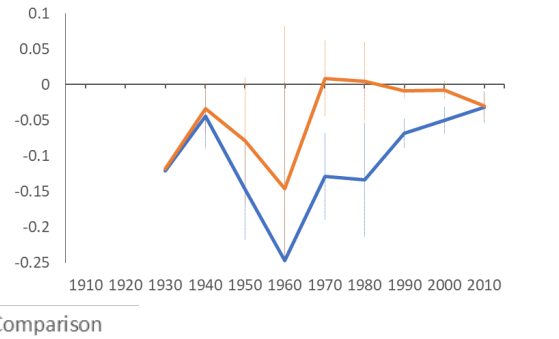
Panel B: 1/8th mile Boundaries, C-B



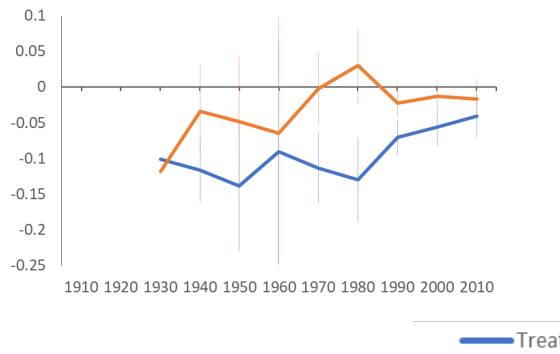
Panel C: High Geocoding Rate Cities, D-C



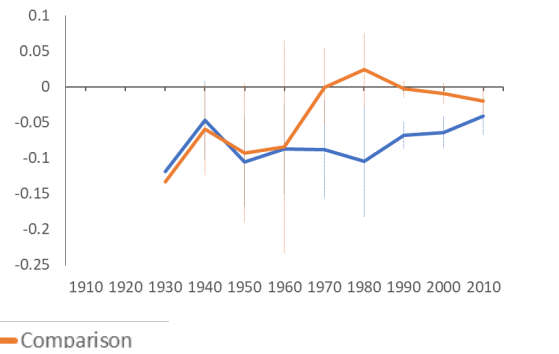
Panel D: High Geocoding Rate Cities, C-B



Panel E: Excluding Trains and Rivers, D-C



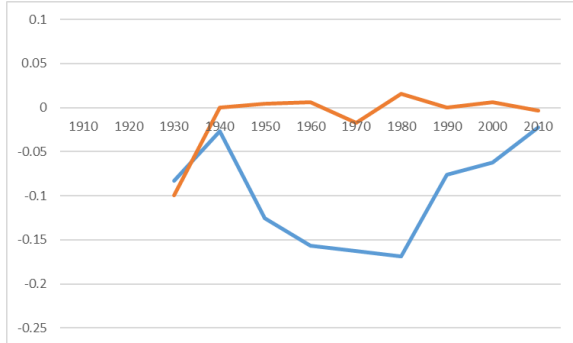
Panel F: Excluding Trains and Rivers, C-B



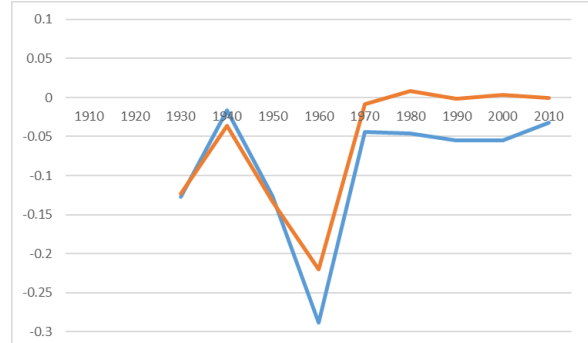
Notes: See notes to Appendix Figure A11.

Appendix Figure A15: Effects by Strictness of Rent Control

Panel A: Log Rent, C-B Boundaries, Below-median rent control severity

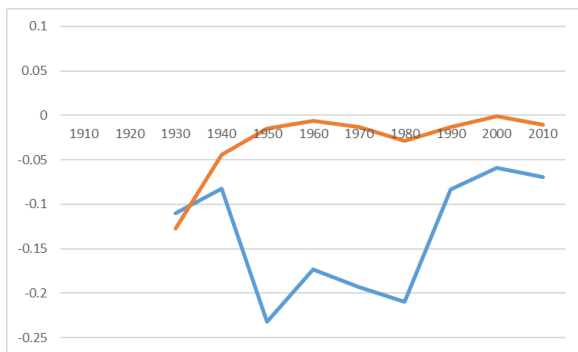


Panel B: Log Rent, C-B Boundaries, Above-median rent control severity

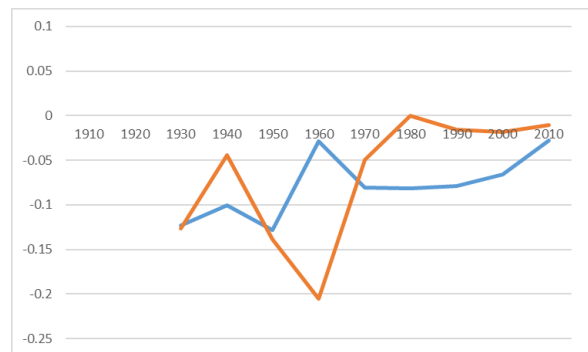


— Treated — Comparison

Panel C: Log Rent, D-C Boundaries, Below-median rent control severity

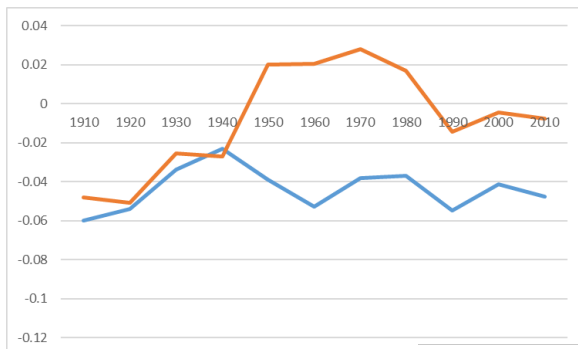


Panel D: Log Rent, D-C Boundaries, Above-median rent control severity

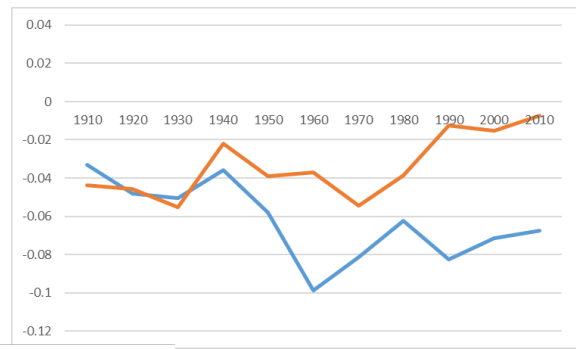


— Treated — Comparison

Panel E: Home Ownership, C-B Boundaries, Below-median rent control severity



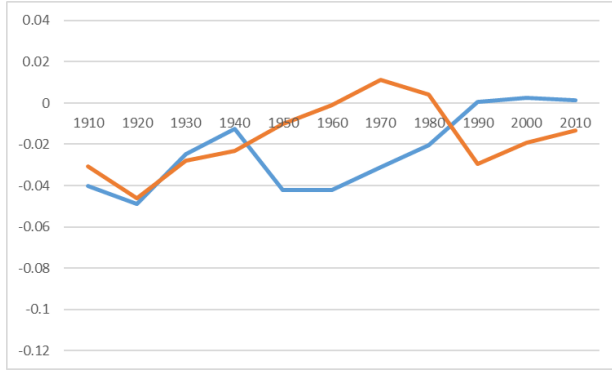
Panel F: Home Ownership, C-B Boundaries, Above-median rent control severity



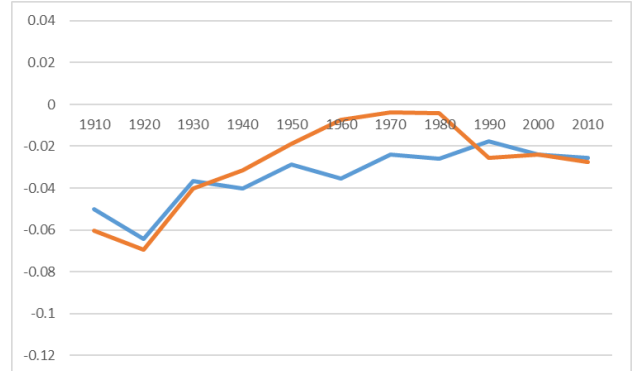
— Treated — Comparison

Appendix Figure A15: Effects by Strictness of Rent Control (cont.)

Panel G: Home Ownership, D-C
Boundaries, Below-median rent control
severity



Panel H: Home Ownership, D-C
Boundaries, Above-median rent control
severity



— Treated — Comparison

Table A1: City Characteristics, 1930

City	1930 Census Variables													
	Pop'n geo'd	Share AA	Home Own	House Values	Share FB	Radio Own	Att. School	Lab F Part.	Rent	Occ. Score	Earn Score	Educ Score	Emp. Rate	Read or Write
Akron, OH	188,793	0.04	0.54	6174	0.13	0.53	0.63	0.60	53	25	51	14	0.82	0.98
Albany, NY	107,893	0.02	0.40	10432	0.14	0.58	0.63	0.60	74	26	55	17	0.84	0.99
Altoona, PA	70,209	0.01	0.61	5449	0.07	0.45	0.61	0.52	54	27	59	14	0.81	0.98
Arlington, MA	31,589	0.00	0.56	9723	0.22	0.74	0.62	0.55	65	28	57	21	0.84	0.99
Asheville, NC	35,807	0.24	0.40	7839	0.02	0.32	0.59	0.61	56	24	46	17	0.80	0.97
Atlanta, GA	161,227	0.27	0.35	6780	0.02	0.31	0.61	0.63	46	24	47	16	0.84	0.97
Atlantic City, NJ	46,508	0.23	0.30	19838	0.16	0.57	0.64	0.63	79	23	43	14	0.81	0.98
Augusta, GA	43,210	0.40	0.29	4983	0.01	0.16	0.57	0.65	39	21	41	12	0.83	0.93
Aurora, IL	39,485	0.02	0.66	6641	0.13	0.71	0.62	0.57	81	26	55	15	0.80	0.98
Baltimore, MD	635,110	0.16	0.56	5421	0.09	0.52	0.56	0.62	53	25	50	14	0.85	0.97
Battle Creek, MI	25,244	0.03	0.60	5845	0.08	0.53	0.63	0.60	72	26	55	15	0.82	0.99
Bay City, MI	36,733	0.00	0.71	2974	0.14	0.49	0.64	0.55	61	26	54	14	0.73	0.97
Belmont, MA	19,988	0.00	0.54	11678	0.22	0.78	0.64	0.55	50	28	56	24	0.88	0.98
Binghamton, NY	61,732	0.01	0.48	7888	0.13	0.50	0.65	0.63	38	25	51	14	0.84	0.97
Birmingham, AL	194,055	0.35	0.39	6109	0.02	0.31	0.57	0.60	47	24	49	15	0.86	0.95
Boston, MA	514,816	0.03	0.29	8504	0.31	0.56	0.66	0.61	69	25	49	15	0.79	0.96
Braintree, MA	12,568	0.00	0.70	5985	0.18	0.77	0.63	0.55	61	27	57	18	0.87	0.99
Bronx, NY	1,072,492	0.01	0.13	13455	0.38	0.65	0.61	0.60	71	26	54	17	0.83	0.96
Brookline, MA	38,951	0.01	0.38	21847	0.27	0.80	0.73	0.57	146	25	47	23	0.83	1.00
Brooklyn, NY	2,191,580	0.03	0.30	11738	0.34	0.59	0.61	0.60	73	26	53	16	0.82	0.95
Buffalo, NY	507,445	0.02	0.47	8354	0.21	0.56	0.62	0.58	50	26	55	15	0.80	0.98
Cambridge, MA	101,103	0.05	0.28	9470	0.29	0.56	0.63	0.61	43	25	50	16	0.80	0.97
Camden, NJ	100,093	0.09	0.51	4903	0.16	0.54	0.60	0.61	67	25	53	12	0.80	0.95
Canton, OH	83,883	0.02	0.56	6348	0.12	0.51	0.61	0.57	44	26	56	15	0.83	0.97
Charleston, WV	31,078	0.11	0.40	10311	0.03	0.46	0.63	0.59	44	26	51	20	0.84	0.98
Charlotte, NC	44,003	0.26	0.35	8803	0.01	0.37	0.53	0.64	51	23	45	15	0.84	0.93
Chattanooga, TN	81,609	0.23	0.36	5638	0.01	0.24	0.54	0.61	31	24	49	14	0.85	0.96
Chelsea, MA	39,184	0.01	0.33	6906	0.38	0.51	0.63	0.58	46	26	52	13	0.79	0.93
Chicago, IL	2,416,387	0.07	0.38	9346	0.26	0.64	0.62	0.61	89	25	53	14	0.80	0.97
Chicopee, MA	40,247	0.00	0.46	5822	0.28	0.44	0.62	0.62	27	25	51	10	0.80	0.95

Table A1: City Characteristics, 1930

City	1930 Census Variables													
	Pop'n geo'd	Share AA	Home Own	House Values	Share FB	Radio Own	Att. School	Lab F Part.	Rent	Occ. Score	Earn Score	Educ Score	Emp. Rate	Read or Write
Cleveland, OH	736,884	0.07	0.42	7305	0.26	0.48	0.65	0.60	46	25	52	13	0.78	0.96
Columbus, GA	34,395	0.28	0.23	6003	0.01	0.17	0.52	0.66	44	22	43	11	0.85	0.93
Columbus, OH	224,650	0.09	0.46	6597	0.05	0.52	0.62	0.59	43	26	54	16	0.82	0.99
Dallas, TX	182,283	0.11	0.42	6224	0.04	0.45	0.55	0.62	51	25	51	18	0.85	0.98
Dayton, OH	143,851	0.08	0.50	6285	0.06	0.58	0.62	0.60	50	26	53	15	0.83	0.99
Decatur, IL	47,825	0.03	0.56	5238	0.04	0.50	0.59	0.57	38	26	54	16	0.82	0.99
Dedham, MA	12,036	0.00	0.67	6588	0.23	0.63	0.64	0.58	60	25	53	16	0.85	0.98
Denver, CO	248,476	0.03	0.48	5421	0.11	0.53	0.63	0.58	41	26	52	19	0.81	0.99
Detroit, MI	1,058,107	0.05	0.49	8977	0.26	0.60	0.61	0.60	73	26	55	13	0.80	0.98
Duluth, MN	69,910	0.00	0.59	6155	0.23	0.53	0.67	0.57	31	26	53	17	0.77	0.99
Durham, NC	30,791	0.27	0.33	6097	0.01	0.22	0.53	0.67	36	24	47	13	0.85	0.95
East Hartford, CT	14,886	0.01	0.50	8098	0.18	0.62	0.61	0.60	33	26	53	14	0.82	0.97
East St. Louis, IL	58,444	0.17	0.45	4350	0.06	0.43	0.58	0.58	41	26	54	13	0.80	0.98
Elmira, NY	39,621	0.01	0.53	6523	0.09	0.47	0.66	0.58	38	26	54	16	0.79	0.98
Erie, PA	99,410	0.01	0.52	7731	0.15	0.51	0.61	0.56	85	26	53	14	0.83	0.97
Essex County, NJ	669,167	0.07	0.42	12616	0.22	0.66	0.63	0.60	51	26	53	17	0.82	0.97
Evansville, IN	75,901	0.06	0.46	4149	0.02	0.34	0.60	0.58	38	25	52	13	0.83	0.99
Everett, MA	43,906	0.02	0.44	6321	0.29	0.65	0.59	0.58	48	26	54	14	0.81	0.97
Flint, MI	102,596	0.02	0.64	5096	0.14	0.55	0.60	0.59	57	26	55	12	0.83	0.99
Fort Wayne, IN	93,848	0.02	0.60	6398	0.05	0.64	0.60	0.59	35	27	56	15	0.83	0.99
Fresno, CA	28,727	0.01	0.50	5075	0.21	0.38	0.67	0.56	37	26	51	19	0.79	0.96
Gary, IN	86,873	0.19	0.44	7264	0.21	0.46	0.62	0.59	62	25	54	12	0.88	0.95
Grand Rapids, MI	117,085	0.02	0.64	5689	0.16	0.50	0.65	0.57	45	26	54	16	0.78	0.98
Greensboro, NC	30,773	0.24	0.47	7648	0.01	0.32	0.56	0.62	36	24	48	17	0.85	0.97
Hamilton, OH	44,014	0.03	0.55	5140	0.04	0.51	0.54	0.57	35	26	55	12	0.84	0.98
Haverhill, MA	42,292	0.01	0.46	5423	0.22	0.51	0.64	0.62	47	25	48	12	0.76	0.97
Holyoke, MA	49,464	0.00	0.27	11802	0.29	0.52	0.68	0.61	34	25	51	13	0.80	0.97
Hudson County, NJ	507,548	0.03	0.29	9256	0.26	0.62	0.61	0.62	84	26	54	14	0.84	0.96
Indianapolis, IN	277,757	0.10	0.44	5881	0.04	0.49	0.59	0.60	63	26	53	16	0.83	0.99
Jacksonville, FL	84,535	0.31	0.35	6927	0.04	0.29	0.58	0.61	31	24	47	16	0.84	0.97

Table A1: City Characteristics, 1930

City	1930 Census Variables													
	Pop'n geo'd	Share AA	Home Own	House Values	Share FB	Radio Own	Att. School	Lab F Part.	Rent	Occ. Score	Earn Score	Educ Score	Emp. Rate	Read or Write
Johnson City, NY	11,678	0.00	0.54	6128	0.07	0.53	0.61	0.66	33	25	49	10	0.83	0.99
Johnstown, PA	52,542	0.02	0.45	6238	0.14	0.40	0.61	0.54	37	25	52	14	0.86	0.96
Joliet, IL	23,480	0.03	0.51	8027	0.16	0.60	0.62	0.57	44	26	55	17	0.82	0.99
Kalamazoo, MI	36,932	0.01	0.66	6181	0.11	0.58	0.66	0.57	45	26	54	18	0.83	1.00
Kansas City, MO	319,031	0.09	0.44	6600	0.07	0.52	0.64	0.61	52	26	52	17	0.85	0.99
Kenosha, WI	45,374	0.00	0.60	7686	0.24	0.63	0.68	0.58	46	25	53	12	0.78	0.96
Knoxville, TN	48,395	0.12	0.42	5279	0.01	0.29	0.56	0.60	42	26	52	16	0.83	0.97
Lexington, KY	35,158	0.27	0.37	6057	0.01	0.31	0.60	0.60	30	23	44	16	0.81	0.96
Lexington, MA	7,490	0.00	0.75	9028	0.20	0.75	0.64	0.55	215	25	50	19	0.87	0.98
Lima, OH	37,340	0.03	0.47	4914	0.04	0.47	0.62	0.58	43	26	55	15	0.84	0.99
Lorain, OH	39,324	0.02	0.62	5137	0.28	0.41	0.62	0.58	46	25	54	11	0.81	0.94
Louisville, KY	241,349	0.13	0.45	5459	0.03	0.37	0.57	0.59	57	25	51	15	0.82	0.98
Lynchburg, VA	31,821	0.23	0.47	5290	0.01	0.24	0.57	0.62	31	24	47	14	0.80	0.95
Macon, GA	18,559	0.34	0.28	4976	0.01	0.18	0.55	0.64	68	23	45	14	0.81	0.95
Madison, WI	51,536	0.00	0.56	8778	0.09	0.65	0.66	0.57	64	27	54	21	0.82	0.99
Malden, MA	53,282	0.01	0.47	6168	0.28	0.66	0.61	0.58	47	26	54	16	0.81	0.98
Manchester, NH	61,731	0.00	0.37	5502	0.29	0.41	0.62	0.64	53	25	49	12	0.79	0.97
Medford, MA	56,087	0.01	0.54	7536	0.23	0.73	0.60	0.57	59	27	56	17	0.84	0.98
Melrose, MA	19,787	0.00	0.67	7033	0.17	0.78	0.65	0.54	65	27	57	22	0.84	1.00
Miami, FL	69,057	0.19	0.35	5993	0.12	0.27	0.58	0.61	60	24	48	17	0.75	0.97
Milton, MA	12,285	0.00	0.69	12359	0.21	0.81	0.68	0.56	50	25	51	21	0.85	1.00
Milwaukee, WI	242,173	0.02	0.46	6719	0.20	0.65	0.66	0.59	52	26	55	14	0.83	0.98
Minneapolis, MN	363,688	0.01	0.51	6070	0.17	0.62	0.67	0.59	53	26	53	18	0.83	0.99
Mobile, AL	47,529	0.33	0.41	4997	0.03	0.22	0.56	0.60	48	23	46	14	0.84	0.94
Montgomery, AL	26,798	0.32	0.33	6288	0.02	0.24	0.57	0.63	29	23	46	16	0.86	0.93
Muncie, IN	34,855	0.06	0.51	4314	0.01	0.47	0.57	0.56	31	26	54	14	0.82	0.99
Muskegon, MI	28,208	0.01	0.61	4640	0.14	0.55	0.66	0.59	43	26	54	15	0.79	0.99
Needham, MA	6,709	0.00	0.73	10936	0.20	0.78	0.66	0.54	63	27	55	22	0.85	0.98
New Britain, CT	61,671	0.01	0.38	9356	0.31	0.41	0.64	0.61	36	26	54	13	0.83	0.92
New Castle, PA	41,741	0.02	0.60	5402	0.16	0.42	0.62	0.53	39	26	54	14	0.78	0.94

Table A1: City Characteristics, 1930

City	1930 Census Variables													
	Pop'n geo'd	Share AA	Home Own	House Values	Share FB	Radio Own	Att. School	Lab F Part.	Rent	Occ. Score	Earn Score	Educ Score	Emp. Rate	Read or Write
New Haven, CT	136,643	0.03	0.35	10769	0.25	0.55	0.64	0.60	45	26	53	16	0.81	0.96
New Orleans, LA	378,493	0.27	0.30	7107	0.04	0.23	0.58	0.60	48	23	47	14	0.81	0.95
New York, NY	1,420,354	0.11	0.04	42199	0.38	0.46	0.62	0.66	88	23	45	15	0.83	0.94
Newport News, VA	25,862	0.34	0.38	4028	0.04	0.33	0.55	0.60	27	26	55	14	0.90	0.96
Newton, MA	16,306	0.01	0.57	12314	0.25	0.69	0.67	0.58	95	25	49	18	0.82	0.98
Niagara Falls, NY	65,818	0.01	0.50	7505	0.33	0.59	0.65	0.59	43	26	55	14	0.84	0.95
Norfolk, VA	76,526	0.29	0.40	5795	0.04	0.38	0.60	0.60	38	25	50	17	0.84	0.96
Oakland, CA	218,891	0.03	0.53	6026	0.19	0.60	0.66	0.57	46	27	55	18	0.80	0.98
Oshkosh, WI	15,475	0.00	0.64	5568	0.12	0.57	0.67	0.55	45	25	51	16	0.79	0.99
Philadelphia, PA	1,623,342	0.11	0.55	6372	0.20	0.57	0.60	0.62	94	25	51	14	0.82	0.97
Pittsburgh, PA	518,768	0.07	0.46	8994	0.16	0.55	0.61	0.58	65	25	50	15	0.80	0.98
Pontiac, MI	47,428	0.04	0.54	6186	0.14	0.53	0.60	0.62	70	25	53	13	0.73	0.98
Portland, OR	42,912	0.01	0.49	5709	0.16	0.58	0.67	0.61	40	26	51	19	0.79	0.99
Portsmouth, OH	32,464	0.04	0.51	5353	0.02	0.40	0.58	0.57	35	26	55	14	0.83	0.98
Poughkeepsie, NY	34,674	0.03	0.39	9636	0.14	0.59	0.61	0.59	46	26	54	16	0.83	0.97
Queens, NY	837,973	0.02	0.51	9986	0.25	0.76	0.60	0.60	84	27	56	17	0.86	0.98
Quincy, MA	65,037	0.00	0.56	6658	0.25	0.72	0.59	0.58	44	27	58	18	0.86	0.98
Racine, WI	58,532	0.01	0.60	7300	0.21	0.69	0.68	0.58	59	26	56	14	0.83	0.98
Revere, MA	32,016	0.00	0.46	5797	0.27	0.64	0.62	0.56	48	26	55	15	0.79	0.95
Richmond, VA	140,735	0.25	0.37	7659	0.02	0.39	0.60	0.61	48	25	50	16	0.84	0.97
Roanoke, VA	42,518	0.19	0.47	5681	0.01	0.28	0.58	0.58	34	24	50	12	0.84	0.97
Rochester, NY	284,366	0.01	0.58	8052	0.23	0.57	0.67	0.60	68	26	54	16	0.80	0.96
Rockford, IL	77,126	0.01	0.53	7600	0.22	0.62	0.61	0.60	92	26	55	14	0.81	0.98
Sacramento, CA	71,415	0.01	0.50	5698	0.16	0.56	0.66	0.59	40	26	53	18	0.80	0.97
Saginaw, MI	47,237	0.03	0.64	4296	0.15	0.56	0.63	0.57	37	26	54	15	0.78	0.98
San Diego, CA	117,541	0.02	0.49	6409	0.15	0.55	0.64	0.53	34	25	51	19	0.74	0.99
San Francisco, CA	485,501	0.01	0.39	8247	0.27	0.51	0.64	0.61	71	26	52	18	0.82	0.98
San Jose, CA	42,403	0.00	0.60	5193	0.18	0.58	0.69	0.53	47	25	51	18	0.74	0.95
Saugus, MA	12,578	0.01	0.75	4866	0.20	0.74	0.60	0.57	47	27	57	15	0.82	0.98
Schenectady, NY	65,710	0.01	0.51	8295	0.20	0.59	0.68	0.58	43	27	58	18	0.84	0.97

Table A1: City Characteristics, 1930

City	1930 Census Variables													
	Pop'n geo'd	Share AA	Home Own	House Values	Share FB	Radio Own	Att. School	Lab F Part.	Rent	Occ. Score	Earn Score	Educ Score	Emp. Rate	Read or Write
Seattle, WA	265,620	0.01	0.53	5422	0.21	0.55	0.67	0.59	47	26	54	18	0.82	0.99
Somerville, MA	93,503	0.00	0.36	7044	0.29	0.64	0.60	0.59	46	26	54	15	0.82	0.97
South Bend, IN	77,632	0.03	0.62	6006	0.14	0.52	0.60	0.60	71	26	53	14	0.76	0.98
Spokane, WA	70,583	0.01	0.62	3768	0.14	0.52	0.65	0.58	33	26	53	18	0.80	0.99
Springfield, IL	57,261	0.04	0.57	5425	0.09	0.50	0.62	0.60	45	25	52	15	0.78	0.98
Springfield, MO	41,132	0.02	0.52	4162	0.02	0.28	0.61	0.54	24	26	54	17	0.81	0.99
Springfield, OH	55,778	0.11	0.48	5413	0.03	0.56	0.62	0.58	50	26	54	14	0.81	0.99
St. Joseph, MO	61,335	0.05	0.43	4172	0.05	0.49	0.62	0.58	30	25	51	15	0.83	0.99
St. Louis, MO	665,880	0.08	0.36	7254	0.10	0.53	0.59	0.60	58	25	52	15	0.83	0.98
St. Petersburg, FL	30,831	0.17	0.49	6194	0.06	0.25	0.64	0.51	26	24	48	18	0.67	0.98
Stamford, CT	36,991	0.03	0.43	11729	0.27	0.62	0.60	0.60	62	25	52	14	0.84	0.95
Staten Island, NY	132,112	0.02	0.56	8327	0.25	0.67	0.64	0.59	56	27	57	17	0.84	0.97
Stockton, CA	34,605	0.01	0.46	5334	0.17	0.53	0.67	0.59	35	26	52	18	0.79	0.98
Syracuse, NY	173,151	0.01	0.49	10068	0.17	0.57	0.66	0.59	49	27	55	17	0.80	0.97
Tacoma, WA	70,786	0.01	0.63	3500	0.19	0.52	0.64	0.57	61	26	53	16	0.81	0.99
Tampa, FL	66,802	0.16	0.40	4046	0.16	0.16	0.58	0.62	25	24	47	13	0.79	0.96
Terre Haute, IN	52,646	0.05	0.49	4345	0.05	0.44	0.67	0.56	39	26	53	16	0.75	0.99
Toledo, OH	250,820	0.04	0.53	6688	0.12	0.62	0.63	0.59	49	26	55	14	0.80	0.98
Troy, NY	58,090	0.01	0.40	6558	0.14	0.53	0.65	0.61	83	26	53	15	0.82	0.98
Utica, NY	82,770	0.00	0.48	7994	0.21	0.48	0.66	0.60	43	26	52	14	0.79	0.94
Waltham, MA	31,475	0.00	0.42	7830	0.27	0.65	0.62	0.60	53	26	53	14	0.83	0.98
Warren, OH	29,274	0.05	0.57	6080	0.16	0.48	0.63	0.57	49	26	56	14	0.83	0.97
Watertown, MA	31,759	0.00	0.46	9267	0.28	0.67	0.61	0.59	50	27	55	17	0.83	0.98
Wheeling, WV	45,311	0.03	0.46	7169	0.08	0.50	0.58	0.57	36	25	52	16	0.81	0.98
Wichita, KS	62,996	0.03	0.48	4726	0.02	0.40	0.65	0.57	38	26	53	18	0.83	0.99
Winchester, MA	11,489	0.02	0.69	11351	0.19	0.76	0.67	0.54	80	25	50	20	0.84	0.98
Winston-Salem, NC	44,493	0.31	0.38	8166	0.01	0.22	0.53	0.67	25	24	48	13	0.84	0.94
Winthrop, MA	14,977	0.00	0.55	8466	0.21	0.76	0.67	0.55	78	28	58	23	0.84	0.99
Youngstown, OH	136,985	0.07	0.57	6055	0.20	0.46	0.65	0.56	47	26	55	14	0.78	0.96

Table A2: Rates of Geocode Matching

	1910	1920	1930	1940
Share of population with a non-missing address	73%	72%	99%	82%
Share of population successfully geocoded	49%	50%	79%	62%
Share of non-missing addresses successfully geocoded	63%	68%	79%	74%

Note: Share of Census street addresses that can be matched to modern street loc

Table A3: Effects of D versus C Grade, Home Ownership

Sample Type	(1)	(2)	(3)	(4)	(5)	(6)	(7)
	HOLC Neighborhoods		1/4 Mile D-C Boundaries				
Year	D-C	D-C	D-C	D-C	Grid C.F's	Triple Diff	Low PS D-C
1910	-0.124 (0.012)	-0.118 (0.01)	-0.053 (0.006)	-0.052 (0.006)	-0.041 (0.005)	-0.014 (0.009)	-0.004 (0.008)
1920	-0.137 (0.011)	-0.128 (0.007)	-0.055 (0.006)	-0.055 (0.006)	-0.045 (0.005)	-0.013 (0.006)	-0.022 (0.007)
1930	-0.110 (0.012)	-0.101 (0.007)	-0.033 (0.005)	-0.032 (0.005)	-0.036 (0.006)	-- --	-0.011 (0.005)
1940	-0.105 (0.011)	-0.097 (0.007)	-0.034 (0.005)	-0.033 (0.005)	-0.024 (0.005)	-0.012 (0.005)	-0.015 (0.006)
1950	-0.136 (0.023)	-0.117 (0.009)	-0.039 (0.011)	-0.029 (0.01)	-0.006 (0.008)	-0.026 (0.013)	-0.029 (0.01)
1960	-0.141 (0.021)	-0.115 (0.009)	-0.041 (0.009)	-0.031 (0.008)	-0.002 (0.008)	-0.032 (0.012)	-0.035 (0.01)
1970	-0.120 (0.017)	-0.096 (0.009)	-0.035 (0.01)	-0.028 (0.008)	-0.001 (0.008)	-0.031 (0.012)	-0.029 (0.009)
1980	-0.112 (0.019)	-0.086 (0.009)	-0.050 (0.011)	-0.036 (0.008)	0.000 (0.008)	-0.039 (0.013)	-0.035 (0.009)
1990	-0.076 (0.01)	-0.067 (0.006)	-0.016 (0.007)	-0.016 (0.007)	-0.018 (0.007)	-0.001 (0.008)	-0.008 (0.008)
2000	-0.073 (0.01)	-0.065 (0.007)	-0.018 (0.007)	-0.019 (0.007)	-0.012 (0.005)	-0.010 (0.009)	-0.011 (0.009)
2010	-0.072 (0.009)	-0.063 (0.007)	-0.021 (0.007)	-0.022 (0.008)	-0.009 (0.007)	-0.016 (0.008)	-0.019 (0.011)
<i>Cities</i>	148	148	115	115	115	115	97
<i>Neighborhoods</i>	3,521	3,554	--	--	--	--	--
<i>Boundaries</i>	--	--	--	1,134	4,217	5,351	567
<i>N</i>	27,786	27,786	16,678	16,678	61,354	78,032	8,515
<i>R2</i>	0.071	0.285	0.287	0.615	0.6	0.603	0.642
<i>F.E.</i>	None	City	City	Boundary	Boundary	Boundary	Boundary

Notes: Table entries are from regressions that estimate the gaps between D and C rated neighborhoods in Home Ownership. See notes to Table 2.

Table A4: Effect of D versus C grade, Log House Values

Sample Type	(1)	(2)	(3)	(4)	(5)	(6)	(7)
	HOLC Neighborhoods		1/4 Mile D-C Boundaries				
Year	D-C	D-C	D-C	D-C	Grid C.F's	Triple Diff	Low PS D-C
1910							
1920							
1930	-0.307 (0.051)	-0.283 (0.032)	-0.160 (0.011)	-0.161 (0.012)	-0.143 (0.018)	-- --	-0.054 (0.016)
1940	-0.355 (0.039)	-0.327 (0.026)	-0.167 (0.012)	-0.167 (0.013)	-0.061 (0.017)	-0.088 (0.018)	-0.095 (0.014)
1950	-0.341 (0.044)	-0.303 (0.031)	-0.202 (0.03)	-0.213 (0.028)	-0.003 (0.044)	-0.191 (0.056)	-0.153 (0.037)
1960	-0.239 (0.054)	-0.238 (0.028)	-0.156 (0.024)	-0.161 (0.022)	-0.009 (0.035)	-0.132 (0.052)	-0.110 (0.031)
1970	-0.394 (0.08)	-0.399 (0.117)	-0.230 (0.054)	-0.231 (0.057)	0.002 (0.049)	-0.213 (0.078)	-0.249 (0.089)
1980	-0.293 (0.033)	-0.293 (0.034)	-0.257 (0.042)	-0.272 (0.04)	0.041 (0.048)	-0.294 (0.08)	-0.221 (0.067)
1990	-0.191 (0.055)	-0.174 (0.025)	-0.089 (0.017)	-0.088 (0.017)	-0.021 (0.009)	-0.048 (0.024)	-0.065 (0.019)
2000	-0.169 (0.048)	-0.151 (0.021)	-0.083 (0.012)	-0.079 (0.013)	-0.029 (0.009)	-0.031 (0.021)	-0.037 (0.019)
2010	-0.112 (0.058)	-0.099 (0.026)	-0.025 (0.014)	-0.026 (0.013)	-0.016 (0.015)	0.009 (0.03)	0.003 (0.014)
<i>Cities</i>	148	148	115	115	115	115	97
<i>Neighborhoods</i>	2,806	3,542	--	--	--	--	--
<i>Boundaries</i>	--	--	--	1,134	4,217	5,351	567
<i>N</i>	22,152	22,152	11,629	11,629	41,664	53,293	6,013
<i>R2</i>	0.195	0.564	0.505	0.625	0.62	0.621	0.614
<i>F.E.</i>	None	City	City	Boundary	Boundary	Boundary	Boundary

Notes: Table entries are from regressions that estimate the gaps between D and C rated neighborhoods in Log House Values. See notes to Table 2.

Table A5: Effect of D versus C Grade, Log Monthly Contract Rents

Sample Type	(1)	(2)	(3)	(4)	(5)	(6)	(7)
	HOLC Neighborhoods		1/4 Mile D-C Boundaries				
Year	D-C	D-C	D-C	D-C	Grid C.F's	Triple Diff	Low PS D-C
1910							
1920							
1930	-0.315 (0.03)	-0.286 (0.025)	-0.127 (0.01)	-0.128 (0.01)	-0.127 (0.019)	-- --	-0.050 (0.013)
1940	-0.285 (0.036)	-0.254 (0.028)	-0.112 (0.016)	-0.113 (0.016)	-0.042 (0.018)	-0.070 (0.023)	-0.039 (0.018)
1950	-0.291 (0.026)	-0.259 (0.028)	-0.170 (0.025)	-0.164 (0.024)	-0.048 (0.028)	-0.114 (0.045)	-0.131 (0.023)
1960	-0.284 (0.066)	-0.256 (0.052)	-0.112 (0.036)	-0.109 (0.036)	-0.061 (0.067)	-0.047 (0.096)	-0.094 (0.057)
1970	-0.228 (0.024)	-0.206 (0.02)	-0.107 (0.019)	-0.103 (0.017)	0.003 (0.023)	-0.105 (0.034)	-0.084 (0.017)
1980	-0.218 (0.031)	-0.201 (0.02)	-0.109 (0.022)	-0.110 (0.022)	0.030 (0.015)	-0.139 (0.033)	-0.065 (0.019)
1990	-0.180 (0.025)	-0.155 (0.011)	-0.073 (0.009)	-0.074 (0.008)	-0.014 (0.006)	-0.059 (0.021)	-0.055 (0.009)
2000	-0.140 (0.025)	-0.116 (0.011)	-0.060 (0.007)	-0.061 (0.008)	-0.013 (0.007)	-0.047 (0.019)	-0.055 (0.01)
2010	-0.090 (0.029)	-0.066 (0.013)	-0.034 (0.011)	-0.037 (0.011)	-0.001 (0.007)	-0.034 (0.024)	-0.031 (0.016)
<i>Cities</i>	<i>148</i>	<i>148</i>	<i>115</i>	<i>115</i>	<i>115</i>	<i>115</i>	<i>97</i>
<i>Neighborhoods</i>	<i>682</i>	<i>3,542</i>	<i>--</i>	<i>--</i>	<i>--</i>	<i>--</i>	<i>--</i>
<i>Boundaries</i>	<i>--</i>	<i>--</i>	<i>--</i>	<i>1,134</i>	<i>4,217</i>	<i>5,351</i>	<i>567</i>
<i>N</i>	<i>22,291</i>	<i>22,291</i>	<i>12,108</i>	<i>12,108</i>	<i>44,321</i>	<i>56,429</i>	<i>6,244</i>
<i>R2</i>	<i>0.188</i>	<i>0.424</i>	<i>0.424</i>	<i>0.53</i>	<i>0.538</i>	<i>0.537</i>	<i>0.533</i>
<i>F.E.</i>	<i>None</i>	<i>City</i>	<i>City</i>	<i>Boundary</i>	<i>Boundary</i>	<i>Boundary</i>	<i>Boundary</i>

Notes: Table entries are from regressions that estimate the gaps between D and C rated neighborhoods in Log Rents. See notes to Table 2.

Table A6: Summary Statistics of Cities Around the 40,000 Population Cutoff

Non-Redlined Cities

City	Mean Characteristics								
	1930 Pop'n	1930				1980			
		Share AA	Home Own	Log Rent	Log H Value	Share AA	Home Own	Log Rent	Log H Value
Baton Rouge, LA	30,729	0.35	0.38	5.54	10.83	0.36	0.54	6.33	11.90
Bellingham, WA	30,823	0.00	0.65	5.54	10.55	0.00	0.54	6.38	11.94
Hagerstown, MD	30,861	0.05	0.37	5.72	11.06	0.06	0.43	6.04	11.50
Fort Smith, AR	31,429	0.11	0.44	5.43	10.55	0.07	0.61	6.07	11.42
Pensacola, FL	31,579	0.31	0.36	5.02	10.55	0.34	0.66	6.10	11.53
Meridian, MS	31,954	0.37	0.40	4.84	10.40	0.37	0.60	5.72	11.36
Muskogee, OK	32,026	0.21	0.45	5.54	10.36	0.18	0.67	5.92	11.26
Watertown, NY	32,205	0.00	0.49	5.87	11.06	0.00	0.51	6.04	11.31
Moline, IL	32,236	0.01	0.53	5.76	11.06	0.01	0.65	6.38	11.83
Wilmington, NC	32,270	0.41	0.40	5.02	10.55	0.39	0.47	5.93	11.20
Tucson, AZ	32,506	0.03	0.40	5.94	10.95	0.04	0.60	6.39	11.85
Laredo, TX	32,618	0.00	0.45	4.33	9.45	0.00	0.60	5.84	11.27
Colorado Springs, CO	33,237	0.03	0.54	5.54	10.70	0.06	0.59	6.33	11.99
Sioux Falls, SD	33,362	0.00	0.47	5.94	10.95	0.00	0.60	6.31	11.80
Joplin, MO	33,454	0.01	0.55	5.31	10.14	0.02	0.64	5.93	11.17
Mansfield, OH	33,525	0.03	0.54	5.94	11.24	0.16	0.61	6.05	11.39
Paducah, KY	33,541	0.20	0.38	5.18	10.14	0.19	0.59	5.79	11.25
Santa Barbara, CA	33,613	0.02	0.44	6.01	11.24	0.02	0.42	6.70	12.81
Lewiston, ME	34,948	0.00	0.34	5.63	11.15	0.00	0.47	6.13	11.58
Zanesville, OH	36,440	0.05	0.56	5.54	10.70	0.10	0.59	5.93	11.17
Hazleton, PA	36,765	0.00	0.44	5.94	11.06	0.00	0.61	5.96	11.16
San Bernardino, CA	37,481	0.01	0.53	5.76	10.83	0.15	0.59	6.30	11.89
Rock Island, IL	37,953	0.02	0.52	5.87	11.00	0.15	0.63	6.19	11.73
Quincy, IL	39,241	0.03	0.52	5.54	10.83	0.04	0.65	5.96	11.49
Butte, MT	39,532	0.00	0.40	5.76	10.14				
La Crosse, WI	39,614	0.00	0.55	5.63	10.78	0.00	0.55	6.23	11.72
<i>Mean</i>		0.09	0.46	5.54	10.70	0.11	0.58	6.12	11.58

Table A6: Summary Statistics of Cities Around the 40,000 Population Cutoff, cont.

Redlined Cities

City	Mean Characteristics								
	1930 Pop'n	1930				1980			
		Share AA	Home Own	Log Rent	Log H Value	Share AA	Home Own	Log Rent	Log H Value
Oshkosh, WI	40,108	0.00	0.68	5.76	10.83	0.01	0.61	6.15	11.60
Poughkeepsie, NY	40,288	0.03	0.37	5.94	11.59	0.26	0.38	6.22	11.63
St. Petersburg, FL	40,425	0.18	0.50	5.54	11.06	0.17	0.65	6.23	11.51
Lynchburg, VA	40,661	0.24	0.45	5.25	10.70	0.24	0.62	6.06	11.55
Warren, OH	41,062	0.06	0.54	6.10	11.15	0.18	0.62	6.09	11.50
Muskegon, MI	41,390	0.01	0.61	5.76	10.78	0.21	0.59	6.07	10.92
Lima, OH	42,287	0.03	0.46	5.63	10.83	0.20	0.62	6.04	11.33
Portsmouth, OH	42,560	0.04	0.46	5.63	11.06	0.05	0.60	5.84	11.23
Joliet, IL	42,993	0.03	0.53	5.94	11.32	0.20	0.61	6.24	11.75
Columbus, GA	43,131	0.33	0.24	5.02	10.83	0.34	0.57	5.90	11.36
Perth Amboy, NJ	43,516	0.02	0.41	5.87	11.39	0.08	0.44	6.37	11.66
Battle Creek, MI	43,573	0.04	0.58	5.94	11.06	0.23	0.59	6.15	10.96
Chicopee, MA	43,930	0.00	0.43	5.68	11.06	0.01	0.58	6.08	11.47
Lorain, OH	44,512	0.02	0.58	5.87	11.06	0.12	0.65	6.19	11.70
Jamestown, NY	45,155	0.01	0.54	5.76	11.24	0.03	0.55	5.97	11.26
Lexington, KY	45,736	0.29	0.36	5.54	10.95	0.13	0.53	6.34	11.87
Chelsea, MA	45,816	0.01	0.28	5.94	11.24	0.03	0.27	6.11	11.50
Stamford, CT	46,346	0.05	0.37	6.10	11.75	0.15	0.55	6.69	12.63
Muncie, IN	46,548	0.06	0.51	5.72	10.83	0.10	0.62	6.07	11.20
Aurora, IL	46,589	0.02	0.64	6.10	11.24	0.10	0.62	6.41	11.83
Bay City, MI	47,355	0.00	0.70	5.43	10.36	0.01	0.73	6.19	11.27
Elmira, NY	47,397	0.01	0.51	5.76	11.24	0.10	0.50	6.09	11.28
Brookline, MA	47,490	0.01	0.32	6.63	12.16	0.02	0.33	6.84	12.50
Stockton, CA	47,963	0.01	0.45	5.76	10.83	0.11	0.52	6.26	11.95
Everett, MA	48,424	0.02	0.40	6.01	11.24	0.02	0.41	6.21	11.84
Haverhill, MA	48,710	0.01	0.45	5.80	11.06	0.01	0.51	6.27	11.65
New Castle, PA	48,764	0.03	0.57	5.76	11.06	0.07	0.65	5.91	11.18
<i>Mean</i>		0.06	0.48	5.79	11.11	0.12	0.55	6.18	11.56

Table A7: Assessing HOLC Grading Criteria

Coefficients	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	Ordered Logit		Probit					
	ABCD	ABCD	DC	DC	CB	CB	BA	BA
Share AA	2.824 (1.233)	1.510 (1.521)	2.742 (0.870)	2.093 (1.125)	-2.857 (1.146)	-3.531 (1.398)	-5.514 (1.262)	-10.147 (2.283)
Share Home Own	-6.600 (0.594)	-7.590 (0.737)	-3.353 (0.428)	-4.523 (0.529)	-3.966 (0.485)	-4.818 (0.593)	-3.786 (0.565)	-3.857 (0.753)
Log House Value	-3.057 (0.225)	-3.319 (0.268)	-1.570 (0.239)	-1.936 (0.218)	-1.474 (0.178)	-2.005 (0.189)	-1.598 (0.195)	-1.676 (0.281)
Log Rent	-0.154 (0.080)	-0.163 (0.091)	-0.095 (0.060)	-0.071 (0.072)	-0.118 (0.061)	-0.145 (0.075)	0.064 (0.073)	0.035 (0.092)
Occscore	-4.318 (1.166)	-6.012 (1.246)	-0.514 (1.091)	-2.231 (1.177)	-1.593 (0.968)	-3.875 (1.215)	-3.004 (1.055)	-2.971 (1.258)
Employment	-0.139 (0.031)	-0.148 (0.038)	-0.143 (0.041)	-0.203 (0.049)	-0.132 (0.022)	-0.170 (0.037)	0.030 (0.023)	0.051 (0.030)
Radio	-6.665 (0.753)	-7.163 (0.910)	-3.812 (0.530)	-2.894 (0.576)	-3.809 (0.622)	-4.260 (0.765)	-1.336 (0.766)	-2.214 (0.930)
Literacy	-7.825 (2.349)	-10.676 (2.698)	-7.803 (1.802)	-10.726 (2.331)	-0.649 (3.618)	-0.888 (3.596)	-4.699 (3.834)	-4.003 (6.512)
School Attendance	4.198 (0.811)	6.099 (1.192)	1.059 (0.729)	1.329 (0.947)	2.210 (0.661)	4.537 (1.014)	1.783 (0.721)	2.645 (1.202)
Share Foreign Born	-0.332 (1.373)	-1.194 (1.757)	-2.548 (0.824)	-3.139 (0.968)	0.466 (1.023)	0.172 (1.139)	0.681 (1.298)	0.609 (1.832)
Includes changes*	--	X	--	X	--	X	--	X
Cities	147	146	138	137	144	142	120	102
N	4,717	3,928	3,146	2,704	3,045	2,506	1,479	1,088
Pseudo R ²	0.482	0.511	0.498	0.538	0.442	0.502	0.348	0.399

Note: This table reports estimates of the relationship between HOLC map grades and 1930 neighborhood characteristics and 1920 to 1930 trends in characteristics. Each observation represents an HOLC neighborhood. In the ordered logit specification, the dependent variable is coded such that the neighborhood graded as riskiest has the highest value (e.g. the dependent variable is coded as D=4, C=3, B=2, and D=1). All specifications include city fixed effects and are weighted by the log of the population of the HOLC neighborhood in 1930. City-clustered standard errors are shown in parentheses.

Table A8: Counts of Boundaries, by City

City	C-B	D-C
Akron, OH	62	28
Albany, NY	6	3
Altoona, PA	14	7
Arlington, MA	6	4
Asheville, NC	11	18
Atlanta, GA	13	1
Augusta, GA	1	4
Aurora, IL	12	13
Baltimore, MD	19	15
Battle Creek, MI	6	14
Bay City, MI	1	19
Belmont, MA	1	0
Binghamton, NY	11	2
Birmingham, AL	19	71
Boston, MA	6	22
Braintree, MA	3	0
Bronx, NY	8	17
Brookline, MA	4	0
Brooklyn, NY	44	73
Buffalo, NY	18	6
Cambridge, MA	4	8
Camden, NJ	8	3
Canton, OH	15	9
Charleston, WV	5	3
Charlotte, NC	1	3
Chattanooga, TN	8	14
Chelsea, MA		5
Chicago, IL	118	117
Chicopee, MA	2	0
Cleveland, OH	42	62
Columbus, GA	1	7
Columbus, OH	58	41
Dallas, TX	14	4
Dayton, OH	17	17
Decatur, IL	18	16
Dedham, MA	4	2
Denver, CO	33	24
Detroit, MI	41	109
Duluth, MN	16	3
Durham, NC	5	6
East Hartford, CT	2	2

Table A8: Counts of Boundaries, by City, cont.

City	C-B	D-C
East St. Louis, IL	7	8
Elmira, NY	10	9
Erie, PA	11	8
Essex County, NJ	51	46
Evansville, IN	8	11
Everett, MA	0	8
Flint, MI	24	7
Fort Wayne, IN	16	8
Fresno, CA	7	11
Gary, IN	10	11
Grand Rapids, MI	23	23
Greensboro, NC	3	5
Hamilton, OH	10	5
Holyoke, MA	1	1
Hudson County, NJ	8	22
Indianapolis, IN	25	67
Jacksonville, FL	12	15
Johnson City, NY	3	0
Johnstown, PA	2	4
Joliet, IL	10	8
Kalamazoo, MI	4	5
Kansas City, MO	30	50
Kenosha, WI	8	20
Knoxville, TN	8	18
Lexington, KY	5	8
Lima, OH	5	6
Lorain, OH	2	3
Louisville, KY	25	29
Lynchburg, VA	1	7
Macon, GA	1	3
Madison, WI	6	11
Malden, MA	1	10
Manchester, NH	5	9
Medford, MA	3	0
Melrose, MA	8	0
Miami, FL	30	25
Milton, MA	2	0
Milwaukee, WI	11	18
Minneapolis, MN	63	40
Mobile, AL	0	7
Montgomery, AL	2	7

Table A8: Counts of Boundaries, by City, cont.

City	C-B	D-C
Muncie, IN	1	6
Muskegon, MI	4	8
Needham, MA	3	0
New Britain, CT	6	0
New Castle, PA	8	4
New Haven, CT	4	11
New Orleans, LA	24	53
New York, NY	10	5
Newton, MA	3	3
Niagara Falls, NY	11	5
Norfolk, VA	6	5
Oakland, CA	23	23
Oshkosh, WI		11
Philadelphia, PA	58	53
Pittsburgh, PA	25	28
Pontiac, MI	5	3
Portland, OR	71	39
Portsmouth, OH	2	7
Poughkeepsie, NY	1	3
Queens, NY	35	27
Quincy, MA	5	0
Racine, WI	9	8
Revere, MA	0	3
Richmond, VA	5	5
Roanoke, VA	0	5
Rochester, NY	25	21
Rockford, IL	10	20
Sacramento, CA	12	0
Saginaw, MI	9	11
San Diego, CA	30	15
San Francisco, CA	13	25
San Jose, CA	15	13
Saugus, MA	3	5
Schenectady, NY	9	5
Seattle, WA	68	26
Somerville, MA	4	6
South Bend, IN	11	9
Spokane, WA	29	37
Springfield, IL	24	28
St. Joseph, MO	4	6
St. Louis, MO	51	31

Table A8: Counts of Boundaries, by City, cont.

City	C-B	D-C
St. Petersburg, FL	12	20
Stamford, CT	0	2
Staten Island ,NY	17	20
Stockton, CA	4	1
Syracuse, NY	18	8
Tacoma, WA	22	28
Tampa, FL	10	6
Terre Haute, IN	6	25
Toledo, OH	31	21
Troy, NY	9	8
Utica, NY	7	9
Waltham, MA	3	2
Warren, OH	9	4
Watertown, MA	4	0
Wheeling, WV	1	2
Wichita, KS	7	22
Winchester, MA	1	0
Winston-Salem, NC	3	4
Winthrop, MA	2	0
Youngstown, OH	25	31
<i>Total</i>	<i>1965</i>	<i>2111</i>

Table A9: City Level Average Estimates, 1950 to 1980

City	African American Share		Home Ownership Share		Log House Value		Log Rent	
	D-C	C-B	D-C	C-B	D-C	C-B	D-C	C-B
Akron, OH	0.22	0.56	-0.08	-0.02	-0.20	0.01	0.09	-0.20
Arlington, MA		0.01		0.14		-1.11		-0.92
Baltimore, MD	0.13		-0.13		-0.24		-0.13	
Bay City, MI	0.03		-0.30		0.06		0.03	
Binghamton, NY		0.01		-0.35		-0.31		-0.12
Birmingham, AL	0.43	-0.49	-0.16	0.20	0.97	0.52	-0.41	-0.08
Boston, MA	0.14		-0.03		-0.18		-0.08	
Bronx, NY	0.12	0.02	0.00	0.04	-0.30	-0.43	-0.17	-0.08
Brooklyn, NY	0.04	0.06	-0.01	-0.06	-0.22	-0.16	-0.06	-0.08
Buffalo, NY		0.14		-0.07		-0.47		-0.37
Cambridge, MA	0.16		0.03		-0.35		-0.36	
Chicago, IL	0.03	0.01	-0.03	-0.09	-0.13	-0.20	-0.09	-0.08
Cleveland, OH	0.07	0.01	0.01	-0.28	-0.16	0.23	-0.08	-0.05
Columbus, OH	0.45	0.05	-0.17	-0.02	-0.19	-0.18	-0.22	-0.33
Dayton, OH	-0.05	0.03	-0.19	-0.27	-0.06	-0.22	-0.11	0.04
Decatur, IL	0.25		-0.09		-0.06		-0.48	
Denver, CO		0.00		-0.12		-0.72		-2.57
Detroit, MI	0.21		0.01		0.02		-0.03	
Duluth, MN		0.01		-0.30		0.03		-0.41
East St. Louis, IL	-0.04		-0.25		-1.04		-0.42	
Elmira, NY		0.02		-0.18		0.70		-0.28
Erie, PA	0.43	0.12	-0.07	-0.08	-0.09	-0.23	-0.02	-0.27
Evansville, IN	0.51		-0.18		-0.05		-0.48	
Fort Wayne, IN		0.02		-0.05		0.49		0.02
Grand Rapids, MI	0.07		-0.01		-0.33			
Hudson County, NJ	0.19	-0.06	-0.07	-0.04	-0.27	-0.14	-0.10	0.02
Indianapolis, IN	0.08	0.19	0.03	-0.16	-0.20	-0.20	-0.03	0.08
Kansas City, MO	-0.04		-0.06		-0.14		-0.11	
Lexington, KY	0.45		-0.04		0.59		-0.66	
Louisville, KY	-0.17		0.10		-0.39		0.02	
Malden, MA	0.01		-0.03		-0.46		-0.91	
Minneapolis, MN	0.01	-0.02	-0.08	-0.03	-0.14	-0.13	-0.19	-0.07
Mobile, AL	0.64		0.07		0.02		-0.39	
New Britain, CT		0.03		-0.46		-0.18		-0.20
New Haven, CT	0.22		-0.03		-0.89		-0.41	
New Orleans, LA	0.23	-0.12	-0.03	-0.07	-0.27	0.00	-0.20	-0.74
New York, NY	0.22	0.16	-0.01	-0.01	-0.52	-0.08	-0.25	-0.21
Niagara Falls, NY		0.00		0.18		0.88		-0.03
Oakland, CA	0.03	-0.02	0.08	-0.04	-0.11	-0.39	-0.06	-0.28
Philadelphia, PA	0.18	0.11	0.00	-0.15	-0.32	-0.25	-0.25	-0.08
Pittsburgh, PA	0.05	0.01	0.03	-0.16	-0.24	-0.36	-0.12	-0.05

Table A9: City Level Average Estimates, 1950 to 1980, cont.

City	African American Share		Home Ownership Share		Log House Value		Log Rent	
	<i>D-C</i>	<i>C-B</i>	<i>D-C</i>	<i>C-B</i>	<i>D-C</i>	<i>C-B</i>	<i>D-C</i>	<i>C-B</i>
Rochester, NY	0.08	0.03	-0.07	-0.07	-0.28	-0.14	-0.08	-0.02
Rockford, IL	0.12		-0.22		0.77		-0.08	
San Diego, CA		0.03		-0.24		-0.06		0.01
San Francisco, CA	0.30		-0.01		0.02		0.09	
Somerville, MA	0.00		-0.10		0.06		-0.04	
Spokane, WA		0.01		-0.04		-0.28		-0.17
St. Louis, MO	0.09	0.19	-0.05	0.05	-0.24	-0.29	-0.24	-0.25
Staten Island ,NY	0.08	0.07	-0.03	-0.18	-0.28	-0.61	-0.19	-0.44
Syracuse, NY		0.06		0.00		-0.17		-0.14
Toledo, OH	0.45		0.02		-0.06		-0.03	

Table A10: City Level Average Estimates, 1990 to 2010

City	African American Share		Home Ownership		Log House Value		Log Rent	
	D-C	C-B	D-C	C-B	D-C	C-B	D-C	C-B
Akron, OH	0.17	0.07	0.07	0.11	-0.10	-0.05	-0.06	-0.04
Altoona, PA	0.00	0.01	-0.10	-0.04	0.03	-0.11	0.03	-0.11
Arlington, MA		0.01		-0.04		-0.12		-0.07
Aurora, IL	0.00	0.03	0.06	-0.14	-0.04	-0.07	-0.04	-0.05
Baltimore, MD	0.02	-0.02	-0.04	0.04	-0.10	0.18	-0.11	-0.01
Battle Creek, MI	0.10		0.01		0.06		0.00	
Bay City, MI	0.01		0.01		-0.04		-0.09	
Binghamton, NY		-0.01		-0.09		0.09		-0.02
Birmingham, AL	0.09	0.09	-0.10	-0.12	-0.07	-0.17	-0.11	-0.12
Boston, MA	0.00	0.01	-0.07	-0.15	0.06	-0.02	-0.16	-0.16
Bronx, NY	0.04	0.04	0.03	0.07	-0.21	0.23	-0.10	0.02
Brooklyn, NY	0.03	0.01	-0.01	-0.07	-0.09	-0.13	-0.06	-0.02
Buffalo, NY	0.14	0.02	-0.14	0.05	-0.22	-0.38	-0.09	-0.08
Cambridge, MA	0.06		-0.03		-0.15		-0.24	
Camden, NJ		-0.16		-0.14		-0.25		-0.06
Chelsea, MA	-0.01		-0.08		0.00		-0.08	
Chicago, IL	-0.01	-0.02	0.02	-0.13	-0.04	-0.08	-0.02	-0.04
Cleveland, OH	0.01	0.03	-0.03	-0.20	-0.05	-0.34	-0.01	0.07
Columbus, OH	0.06	0.03	0.02	-0.08	-0.15	0.02	-0.03	-0.08
Dayton, OH	0.02	-0.06	-0.06	-0.20	-0.10	-0.07	-0.15	0.12
Decatur, IL	0.13	0.08	-0.02	-0.09	-0.05	-0.10	0.00	0.03
Denver, CO	0.00	0.00	-0.12	-0.13	-0.08	-0.10	-0.08	-0.07
Detroit, MI	0.03		-0.04		-0.23		-0.11	
Duluth, MN		0.01		-0.05		-0.10		-0.01
East St. Louis, IL	-0.03		0.00		0.08		-0.16	
Elmira, NY	-0.03	0.02	0.16	-0.05	0.10	-0.18	-0.07	-0.06
Erie, PA	0.11	0.07	0.06	-0.06	-0.01	-0.15	-0.02	-0.09
Evansville, IN	0.12		0.00		-0.02		-0.12	
Everett, MA	0.02		0.04		-0.02		-0.02	
Fort Wayne, IN	0.15	0.01	-0.13	-0.15	-0.33	-0.10	-0.19	0.00
Grand Rapids, MI	0.17		0.05		-0.39		-0.01	
Hamilton, OH		0.00		-0.13		-0.10		-0.05
Hudson County, NJ	0.04	0.02	-0.04	-0.05	-0.14	-0.11	-0.11	-0.06
Indianapolis, IN	0.02	0.06	-0.01	-0.01	-0.10	-0.27	-0.03	-0.13
Jacksonville, FL	0.10		0.17		-0.02		-0.04	
Joliet, IL		0.01		-0.01		-0.05		-0.03
Kansas City, MO	-0.03		-0.01		-0.06		-0.04	
Knoxville, TN	0.05		-0.11		-0.15		-0.01	
Lexington, KY	-0.01	-0.01	0.01	0.01	0.03	-0.10	0.01	0.02
Lima, OH	0.04		-0.06		0.00		-0.01	
Louisville, KY	-0.02	0.03	-0.01	0.00	-0.14	-0.03	-0.02	-0.01

Table A10: City Level Average Estimates, 1990 to 2010, cont.

City	African American Share		Home Ownership		Log House Value		Log Rent	
	D-C	C-B	D-C	C-B	D-C	C-B	D-C	C-B
Malden, MA	0.01		-0.06		0.00		-0.01	
Manchester, NH	0.01		-0.03		-0.09		0.00	
Melrose, MA		0.01		-0.15		-0.08		-0.17
Minneapolis, MN	0.01	0.04	0.05	-0.08	0.03	-0.07	-0.05	-0.03
Mobile, AL	0.05		-0.16		0.02		-0.15	
Muncie, IN	0.11		-0.26		-0.06		-0.27	
New Britain, CT		0.02		-0.09		-0.07		-0.08
New Haven, CT	0.13		-0.01		-0.11		-0.23	
New Orleans, LA	0.22	0.33	-0.07	-0.14	-0.27	-0.50	-0.13	-0.25
New York, NY	0.08	0.09	-0.02	-0.05	-0.14	-0.13	-0.04	-0.25
Niagara Falls, NY		-0.05		0.00		-0.03		-0.14
Oakland, CA	0.05	0.05	-0.01	-0.12	-0.04	-0.16	-0.07	-0.12
Oshkosh, WI	0.00		-0.08		-0.08		-0.04	
Philadelphia, PA	0.07	0.01	0.00	-0.02	-0.14	-0.17	-0.07	-0.05
Pittsburgh, PA	0.08	0.04	-0.01	-0.03	-0.15	-0.21	-0.04	-0.06
Portland, OR	-0.03		0.00		0.05		0.00	
Quincy, MA		0.01		-0.06		0.05		0.03
Roanoke, VA	-0.03		-0.03		-0.10		-0.02	
Rochester, NY	0.04	0.07	0.01	-0.15	-0.07	-0.15	-0.04	-0.04
Rockford, IL	0.02	0.03	-0.05	-0.05	0.03	-0.07	-0.05	-0.03
Saginaw, MI	-0.09		0.09		-0.08		-0.04	
San Diego, CA		0.02		-0.09		-0.05		-0.06
San Francisco, CA	0.02	0.04	-0.02	-0.20	-0.01	-0.27	-0.02	-0.07
San Jose, CA	0.01		-0.06		-0.07		-0.09	
Schenectady, NY		0.03		-0.10		-0.09		-0.05
Seattle, WA		0.03		-0.20		-0.27		-0.20
Somerville, MA	0.03		-0.03		-0.11		-0.06	
Spokane, WA		0.00		-0.17		0.06		-0.05
Springfield, IL	0.10	0.07	-0.04	-0.13	-0.02	-0.03	-0.02	-0.02
St. Joseph, MO	-0.01		0.02		0.00		0.00	
St. Louis, MO	0.01	0.03	0.00	0.03	-0.06	-0.24	-0.03	-0.07
Staten Island, NY	-0.02	0.02	-0.13	-0.10	-0.05	-0.19	0.01	0.00
Syracuse, NY	0.09	0.05	-0.08	-0.05	0.05	-0.07	-0.08	-0.03
Tacoma, WA	-0.03	0.00	0.02	-0.01	0.06	-0.04	0.01	-0.06
Terre Haute, IN	0.08		0.00		-0.04		-0.01	
Toledo, OH	0.22	-0.08	0.01	-0.06	0.01	-0.04	-0.10	-0.01
Troy, NY	0.08	0.03	0.01	-0.21	-0.23	-0.08	0.00	-0.02
Wichita, KS	0.01		-0.06		-0.10		-0.03	
Youngstown, OH	-0.05	0.13	-0.04	440.09	-0.10	-0.08	-0.08	-0.26

