

Racial Diversity and Exclusionary Zoning: Evidence from the Great Migration

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Abstract

Why do cities adopt and maintain laws that restrict the construction of multi-family housing? Dominant explanations emphasize the economic incentives of homeowners to preserve property values, but this motivation may be underpinned by a preference for racial segregation by white residents. Using new administrative data on zoning, I show that the median central city in the non-Southern United States allows multi-family housing to be built on only 13% of residential land. Leveraging exogeneity in Black migration to Northern cities from 1940 to 1970, I show that increasing racial diversity causes cities to zone less land for multi-family housing. Analysis of public opinion surveys shows urban white voters in areas impacted by migration experienced desegregation and were more racially conservative on housing policy. This suggests that exclusionary zoning was adopted to maintain racial segregation and illustrates how racial threat can embed itself in public policy.

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Replication files are available in the JOP Data Archive on Dataverse (<https://dataverse.harvard.edu/dataverse/jop>). The empirical analysis has been successfully replicated by the JOP replication analyst.

Supplementary material for this article is available in the appendix in the online edition.

Introduction

Land use restrictions in municipal and county governments across the United States that prohibit high-density housing have many pernicious effects. These laws cause high home and rent prices, making housing unaffordable (Glaeser, Gyourko, and Saks 2005). Because the benefits of appreciating property values are not equally shared, land use restrictions contribute to economic inequality (Piketty and Zucman 2014). They also widen racial inequality by maintaining racial segregation (Rothwell and Massey 2010) and drive partisan polarization (Trounstine 2018). Additionally, as families are priced out of urban job centers, they face reduced opportunities for mobility (Chetty et al. 2014). This constrained mobility affects not only low-income families but also reduces aggregate economic output (Hsieh and Moretti 2019). Many urban areas, once places of opportunity for the poor to climb the economic ladder, have become increasingly inaccessible due to restrictions on housing density (Glaeser, Gyourko, and Saks 2005).

Each municipality and county government in the United States has regulations that restrict how private landowners use and build on their land.¹ The differences in land use regulations across municipalities reflect the geographic, economic, and demographic features of the area. But as a whole, the United States is unique relative to other countries in the ubiquity of exclusionary zoning: zoning codes that prohibit multi-family housing (Hirt 2015). Exclusionary zoning raises prices for newly-built housing, since a single unit bears all the costs of the land on which it sits, and for existing housing, which becomes more expensive due to scarcity.

Most explanations for the prevalence of exclusionary zoning point towards the self-interest of homeowners, who oppose new development as a cartel in order to protect the financial value of their homes (Fischel 2001). Holding demographic differences constant, homeowners participate in local politics at higher levels (Yoder 2020), hold more anti-development attitudes (Einstein, Glick, and Palmer 2019), and are more spatially sensitive to new development than renters (Hankinson 2018). Yet the racial origins of zoning and the segregated land use patterns it generates suggest an additional mechanism may be at work. Residents' objections to multi-family housing and ensuing threats to property values can come from many sources: aesthetics, congestion of public goods, and sharing space with different types of people. The latter concern, specifically white preferences to not share neighborhoods with Black neighbors, is an important determinant of exclusionary zoning.

Numerous studies have established the link between land use regulations, particularly density restrictions and racial segregation (Rothwell and Massey 2010; Trounstine 2018). However, there has been limited

1. Even Houston, the largest city in the United States without comprehensive zoning, has restrictions on form (e.g. building heights, setbacks from the street) and use (e.g. maximum occupancy, required parking spaces) that constrain land use.

empirical research on the racial causes, rather than consequences, of exclusionary zoning, despite common arguments that racial motivations were a significant factor (Rothstein 2017). Analysis of early zoning codes indicates a higher likelihood of existing minority neighborhoods being zoned for industrial uses and higher residential densities (Shertzer, Twinam, and Walsh 2016; Twinam 2018). However, cities did not generally prohibit multi-family housing when they first instituted comprehensive zoning in the 1920s; instead, their primary focus was on separating housing from industrial and commercial uses.

I argue that the adoption of exclusionary zoning is driven by residents' preferences for racially segregating neighborhoods, leading cities experiencing greater Black population growth to impose more extensive restrictions on multi-family housing. To examine this argument, I concentrate on the period between 1940 and 1970, when three significant changes were reshaping urban areas: a massive migration of African-Americans from the rural South, the abolition of *de jure* racial segregation, and the diffusion and increasing complexity of comprehensive zoning. During the second wave of the Great Migration between 1940 and 1970, over 3.5 million African Americans relocated from the rural South to the urban North, Midwest, and West. They settled in cities where the machinery of racial discrimination in housing markets—redlining discouraging lenders from operating in non-White neighborhoods, restrictive covenants prohibiting home sales to non-Whites, and renting discrimination by landlords—was being dismantled by federal and state action (Rothstein 2017; Aaronson, Hartley, and Mazumder 2021).

During this critical juncture, cities turned to zoning to exclude multi-family housing, and the lower-income families who live in them, from most residential neighborhoods. Zoning codes that previously permitted dense multi-family housing in most neighborhoods were revised to mandate that a majority of land be set aside only for single-family housing. City governments enacted these policies in response to white voters who demanded racial segregation as a backlash to the Black migration into their cities.

To test this argument, I gathered administrative data on exclusionary zoning for 125 out of the 197 central cities in non-Southern states.² Recently, cities have made machine-readable zoning maps available, but the lack of comparability of similarly-named zones between cities makes categorizing them challenging. After processing the zoning maps and matching the zones to their use regulations, I constructed a summary measure of exclusionary zoning: the percentage of residential land where multi-family housing of four or more units can be constructed. Using this measure, I find that exclusionary zoning is dominant in the largest cities in the United States: the median central city permits multi-family zoning on only 13% of residential land and designates 72% of the land exclusively for single-family homes.

Leveraging exogenous factors that predict the level and timing of Black migration from the South, I

2. I define a central city as the most populous city in a commuting zone, a multi-county measure of a labor market area.

demonstrate a causal link between rising racial diversity and higher levels of exclusionary zoning: a one percentage point increase in Black population growth causes cities to zone nearly 1 percentage point less residential land for multi-family housing. A placebo analysis of similar migration by Southern whites shows no link to exclusionary zoning, pointing towards race as the key characteristic driving the changes. In examining potential mechanisms that would link rising Black population share to exclusionary zoning, I find evidence that white residents in cities more impacted by the Great Migration were more conservative on racial issues, including those directly related to integration and housing policy. This supports the argument that municipal governments, responsive to these preferences against integration, used exclusionary zoning to protect white neighborhoods at a time when explicitly segregationist policies were no longer an option.

This research sheds light on why the United States is uniquely restrictive of land use: the politics of white backlash to Black economic and political empowerment paired with local control over land use regulation. In particular, exclusionary zoning became widespread due to the timing of Black migration during a period of federal civil rights action and increased role of municipal governments in land use planning. In the long run, this has slowed new housing production, particularly of multi-family housing, and in many places has raised rents and home values in the long-term when population growth began to exceed allowable housing supply. The findings also point to part of why large cities, which are politically liberal and historically a magnet for the poor seeking economic opportunity, struggle with the interconnected issues of expensive housing, homelessness, and gentrification today. Exclusionary land-use regulation has contributed to an underproduction of housing in many growing cities, raising the cost of living and preventing low-income families from accessing the economic, social, and health benefits of cities.

Background

Zoning is a core institution of municipal governments, regulating property rights and dictating the physical form of the city. Yet, for much of American history, land use was not regulated in a comprehensive way: the first comprehensive zoning code was not adopted until 1916. But its diffusion was quick: by 1935, nearly all large cities had zoned. Scholars have provided a number of economic and political explanations for why comprehensive zoning arose when it did. First, economic developments made zoning necessary to protect property values. The rise of urban manufacturing and the associated public health and nuisance problems led to regulation on the siting of industrial buildings (Clingermayer 1993). Zoning was viewed by progressive-era reformers as a way to regulate public health and impose order on sprawling cities (Toll 1969; Trounstine 2018). Both residents, who did not want to live next to noisy and polluting factories, and factory owners, who did not want to face complaints and lawsuits from neighbors, favored a separation

between residential and industrial uses. At the same time, development of streetcars and, later, automobiles, enabled cities to expand on the periphery and for workers and jobs to be located outside of the city center (Fischel 2001). As the possibilities for locating homes and businesses expanded, property owners sought to reduce variation in possible neighbors. Finally, as large-scale residential development became more common, developers sought legal enforcement of common neighborhood standards after they had subdivided and sold land (Weiss 1986). Realtors and owners had long been content with spot zoning of individual properties, but large-scale developers sought control over the entire neighborhoods they were creating from scratch.

The potential of zoning as a tool was also evident to politicians and groups seeking to promote racial segregation. Many members of the federal government who helped diffuse zoning policy in the 1920s were segregationists, although documents encouraging states and cities to adopt zoning make no reference to race (Rothstein 2017). How and when cities adopted zoning also points to a link between segregation and zoning: cities with segregated schools adopted zoning ordinances earlier than those without (Trounstine 2018). Early zoning codes located Black neighborhoods near industrial zones and for higher residential densities (Shertzer, Twinam, and Walsh 2016). They also banning industries dominated by a specific racial group, like laundries in 19th century California which were primarily run by Chinese immigrants (Shlay and Rossi 1981). When racial zoning was outlawed by the Supreme Court in 1917, cities such as Atlanta which had previously used zoning districts named for “white” and “colored” residents kept the same boundaries and simply changed the district names to “R1” and “R2,” which commonly denote exclusive residential districts (Silver 1991).

Despite these linkages, exclusionary residential zoning—regulation designed to economically segregate neighborhoods by mandating expensive homes—was not a particularly widespread feature of early zoning ordinances. Exclusive residential districts made up a very small portion of the land area of a city: 4.8% of the land in Los Angeles and 2.9% of the land in Chicago was zoned for exclusive single-family use in their first comprehensive zoning codes (in 1933 and 1923, respectively; compared to 73% and 78% today) (Whittemore 2012; Flint 1977). The many private mechanisms available to enforce segregation may explain why early zoning ordinances did not heavily restrict multi-family housing. Racial covenants, clauses in the deeds of homes which prevented a sale to anyone except a white Protestant buyer, covered a majority of property deeds in many cities and remained a constraint on integration even after they became legally unenforceable in 1948 (Jones-Correa 2000; Brooks 2011). The federal government, active as a lender and landlord, also had a large role in promoting housing discrimination. The Home Owners Loan Corporation explicitly factored racial composition into its ratings of neighborhoods’ suitability for home loans. Lending

practices that priced in the existing racial makeup and the presence of multi-family housing steered white buyers away from neighborhoods with any racial integration. While these discriminatory institutions were not as impenetrable as segregated zoning, they were nearly as effective by one account: “slum clearance, neighborhood planning, private deed restrictions, and racially charged real estate practices all served the cause of segregation as effectively as racial zoning” (Silver 1991).

Exclusionary zoning on the basis of building and form type became widespread only after the federal government began to chip away at private discrimination in housing. This began in 1948, when restrictive covenants were declared unenforceable, although private owners could still adhere to their terms until their full outlawing in 1968. Generally, discriminatory practices were not outlawed until 1968, when the Fair Housing Act made discrimination in housing sales, rentals, and loans, illegal. Zoning allows the same division through political boundaries and hoarding of public goods as fragmentation, just within instead of across jurisdictions (Trounstein 2018). Pro-segregation forces, seeing their policies explicitly allowing racial discrimination in housing defeated at the national level regrouped in two ways. First, they shifted venues to local governments, pressuring individual cities to adopt exclusionary zoning with the threat of exit. And second, they were able to achieve segregation through an ostensibly unrelated, race-neutral restriction on housing density. Writing about white flight in divided metropolitan areas, Weir (2005) notes that “just as the federal government was at last embracing a transformative racial order, local political boundaries were giving new life to a segregationist order that most politicians and citizens were now overtly repudiating” (170).

Racial Threat and Zoning

Racial threat, a psychological theory of majority-minority group relations, helps explain why the white majority favored segregation. In the classic formulation, Blalock (1967) predicts that as the size of a minority group increases, the majority group will hold more discriminatory attitudes towards them. The majority group is threatened economically and politically, worried about competing for scarce resources, not just prejudiced against the minority group. Therefore, as the size of the minority group grows, the majority feels more threatened, adopts more negative attitudes towards the minority group, and takes actions to limit their economic and political power.

The attitudinal backlash typically measured as the outcome of racial threat can result in durable policy changes seeking preserve the group hierarchy that the majority feels it is at risk of losing. Attitudes affect political outcomes through decreased support for parties associated with the minority group (Key Jr 1949; Enos 2016). Policies to directly control minority groups such as increasing the size of police forces (Carmichael and Kent 2014) and issuing harsher sentences by race (Crawford, Chiricos, and Kleck 1998),

have been linked to racial threat, as have declines in support for policies that benefit minority groups, such as affirmative action (Tolbert and Grummel 2003) and sanctuary city status (Collingwood and O'Brien 2019).

Many of these policy actions are focused on depriving minority groups of equal rights and access to public goods. To hoard public goods, dominant groups have several options. They can create new jurisdictions that are financially inaccessible to the outgroup, as illustrated by post-war suburbanization and white flight (Jackson 1987; Trounstine 2018). Indeed, areas with higher racial diversity tend to have more jurisdictions, even if they are less efficient at delivering policy (Alesina, Baqir, and Hoxby 2004). Within city limits, the dominant group can reduce their contributions to public goods, turning to private mechanisms for public safety, education, and recreation (Alesina, Baqir, and Easterly 1999; Derenoncourt 2022). But zoning allows the dominant group to both stay in place and maintain public services by segregating within city boundaries, investing into defended neighborhoods while sharing little with their neighbors who cannot buy into higher cost areas (Trounstine 2018).

Numerous discussions over how to conceptualize racial threat have emerged in decades of scholarship. I discuss three of these concerns relevant to the case of exclusionary zoning: how to define geographic context, what the functional form of the relationship is, and whether outgroup size should be measured in changes or levels.

First, empirical findings are sensitive to the geographic unit of analysis. The exchange between Giles and Buckner (1993) and Voss (1996) over how to interpret patterns of support for David Duke in his Louisiana Senate run hinges on how to define the geographic area in question. When looking at individual parishes, levels of support for the white supremacist candidate were highest in the whitest parishes, against the predictions of racial threat theory. But when grouping parishes together, white votes for Duke in metropolitan areas where whites were in proximity to large Black populations appeared to support the racial threat hypothesis. Along with the question of the grouping units, overlapping levels of government governing county governments, school districts, and municipalities complicate focusing on a single context (Baybeck 2006). Social contexts other than race, like socio-economic status and education, have their own separate and overlapping effects on individual behavior (Oliver and Mendelberg 2000). Finally, contexts may differ across regions of the country, with the South standing out both for having higher levels of racial animus among whites but at the same time lower levels of residential segregation (Taylor 1998). Activation of threat may also depend on other factors, including the size of the existing minority population (Newman 2013) and the role of political entrepreneurs in raising the salience of the issue (Hopkins 2010).

Second, there are multiple ways of conceptualizing the form of the relationship between outgroup size

and threat. While most analyses assume a linear relationship, with threat increasing with the size of the minority population, Blalock (1967) hypothesized that threat rises as a Black minority population grows but decreases once Black residents are in the majority. However, evidence for this claim is mixed: some recover this quadratic result (Stephens-Davidowitz 2014) but others find a linear relationship better fits the data (Taylor 1998).

Finally, while many studies of racial threat focus on the level of an outgroup's size, a change in the group's size may be more likely to trigger threat (Ellen 2001; Hopkins 2009; "Group Size versus Change? Assessing Americans' Perception of Local Immigration, volume = 67, issn = 1065-9129, 1938-274X, shorttitle = Group Size versus Change?, url = <http://journals.sagepub.com/doi/10.1177/1065912913517303>, doi = 10.1177/1065912913517303, abstract = Leading opinion research on immigration has begun to move from size-based to change-based measures of citizens' ethnic context. This shift is based on the theoretical assumption that over-time growth in immigrant populations is more likely to capture citizens' attention than their current size. At present, there is no empirical evidence supporting this assumption. This article demonstrates that while the size of local immigrant populations exerts virtually no effect on perceived immigration, over-time growth strongly influences citizens' perceptions of immigration into their community. In addition, our analyses illuminate the differential contribution of growth in local Hispanic and Asian populations to perceived immigration., language = en, number = 2, urldate = 2024-03-03, journal = Political Research Quarterly, author = Newman, Benjamin J. and Velez, Yamil, month = jun, year = 2014, pages = 293–303, file = Newman and Velez - 2014 - Group Size versus Change Assessing Americans' Per.pdf:/Users/alexandersahn/Zotero/storage/XTXCFZPQ/Newman and Velez - 2014 - Group Size versus Change Assessing Americans' Per.pdf:application/pdf," n.d.). The use of changing racial composition as a proxy for neighborhood quality is illustrated by the practice of blockbusting. Real estate agents would publicly show a home for sale to a Black family, inducing panic among white families who would then quickly sell at a low price. This logic may help explain the puzzle of why predominantly white areas may be home to some of the most hostile atmospheres and behavior towards Black integration: small changes are the trigger for a large reaction in "defended neighborhoods" (Green, Strolovitch, and Wong 1998).

Drawing from the findings on contact, racial threat, and the adoption of racialized policy, I set up the question of whether racial diversity causes exclusionary zoning in three parts. First, I hypothesize that white residents of cities are aware of the racially diversifying context around them. This serves as a manipulation check that contact with the outgroup is in fact occurring (Newman et al. 2015). Second, I expect that whites in areas with more Black population growth will hold more racially conservative views,

especially on issues related to neighborhood integration and shared public goods. Finally, I predict that local governments in places with more Black population growth will respond to white backlash and adopt more restrictive zoning policies.

The context in which I test these claims is the largest internal migration in American history. Between 1940 and 1970, 3.5 million African-Americans left the rural South for urban areas in the rest of the country in what has become known as the Great Migration. Black families left the South in response to violent oppression under Jim Crow and because of poor economic opportunities relative to those in the North (Tolnay 2003; Wilkerson 2011). The Great Migration drastically changed the makeup of American cities, rapidly increasing the Black population in a short period of time.

There were many political consequences of this demographic change. First, white city residents left in droves for neighboring suburban municipalities which were growing rapidly with the direct subsidy of government housing and infrastructure programs (Boustan 2016). Some white residents were unwilling or unable to move but were nonetheless displeased with the changing makeup of their cities. Instead of using their exit option, they used their voice to demand political changes. White voters used the law to enforce their preferences for segregation. For instance, when voters went to the polls in 1964 to vote on a ballot proposition reversing an open housing court decision in California, areas that became more Black over the previous two decades were more likely to vote in favor of overturning the law (Reny and Newman 2018). When city officials turned to busing to remove the effects of residential segregation of school segregation, white parents, unwilling to share public goods with African-American families, were more likely to send their children to private school (Derenoncourt 2022). Whites turned to extra-judicial violence to maintain their segregated neighborhoods, subjecting African-Americans migrants to riots, bombings, and arson when they attempted to move into white neighborhoods (Wilkerson 2011). White southern migrants also made the migration North along similar routes, but were more likely to settle in suburban and rural areas. They brought political views formed in the Jim Crow south to Northern states, establishing conservative political and cultural institutions, helping fuse the New Right coalition, and eventually contributing to partisan realignment (Bazzi et al. 2021).

Against the tide of backlash, the Democratic party recognized the growing importance of Black voters in cities as a central part of their coalition as early as the 1930s (Schickler 2016). Representatives in Congressional districts representing these Black voters were more likely to sign discharge petitions on civil rights issues (Calderon, Fouka, and Tabellini 2023). Black voters also impacted local politics, electing Black mayors and city councilors, who, depending on the size of their electoral base, were often pivotal in city politics (Grant 2020). As the civil rights movement progressed, cities with higher levels of Black

migration saw more local chapters of civil rights groups and more frequent demonstrations (Calderon, Fouka, and Tabellini 2023). But these advances in Black political enfranchisement came at the same time as mobilization by proponents of segregation.

White flight and zero-sum political competition between Black and white voters affected the finances of municipalities. Cities with more Black population growth had lower tax receipts, cut spending on education, public health, and poverty, and assumed more municipal debt (Tabellini 2018). One exception to the decline in spending is on law enforcement, where the Great Migration caused cities to spend more on policing and to incarcerate more people (Derenoncourt 2022). Federal aid through urban renewal also disproportionately flowed to these cities, displacing more Black families in neighborhoods designated as “blighted” by local leaders (Shi et al. 2022).

In local governments, where access to public goods is often contingent on spatial proximity, housing policy is a natural policy area in which we would expect racial threat to translate to policy. (Rothwell and Massey 2010) Land use regulation segregates groups and allows neighborhoods to hoard public goods within city limits (Trounstine 2018). However, the extent to which zoning is adopted as a result of racial threat has not been comprehensively tested.

Black population growth from the Great Migration was not equal in cities across the North. How attractive Northern cities were, whether due to previous patterns of migration or contemporaneous economic and political characteristics, differed widely. In addition, the conditions, mainly economic, in different areas of the South made poor residents, Black and white, more likely to leave at different times. Because different counties were more likely to send to specific cities as a result of proximity and connection on transportation networks, the heterogeneity in Southern counties drove differing patterns of growth in the North. I exploit these differences in Black population growth to look at differences in the degree of racial threat among white residents. In the following section, discuss the data sources I use to measure exogenous Black population growth and exclusionary zoning. I then turn to how I test the prediction that as Black population growth increases, cities will engage in more exclusionary zoning to protect the neighborhoods of racially resentful white inhabitants from integration.

Data and Empirical Strategy

Describing Exclusionary Zoning

Despite the importance of zoning policy in governing the built environment, no data exists comprehensively measuring zoning across US cities. Cities write their individual zoning codes consistent with their general plans and draw maps outlining which districts apply to which areas of land. However, zoning

districts are not standardized across cities: an R-3 district in Baltimore, MD allows only detached single-family homes on 5,000+ foot lots while an R-3 district of the same name in Phoenix, AZ allows multi-family housing of up to 14.5 units per acre.

I assemble a large and geographically varied set of zoning maps and ordinances to construct a measure of exclusionary zoning: the percentage of residential land on which multi-family homes are allowed, a key constraint on density and the availability of affordable housing (Shertzer, Twinam, and Walsh 2016; Monkkonen 2019). For all 197 non-Southern cities at the center of a commuting zone listed in the 1940 census, I attempt to retrieve the most recent zoning map shapefiles from municipal government city planning offices or direct correspondence with planners; I am unable to retrieve maps for some cities because they are either not digitized, not available to the public, or prohibitively expensive to purchase. In total, I collect zoning data for 125 of the 197 central cities in the Northern United States.³

I calculate the percentage of land area for each zone and code these zones based on their use and dimension regulations. From chapters of the zoning code on use regulations, I categorize zones as single-family residential, two and three-family residential, or multi-family residential.⁴ The primary dependent variable is measured as the land area where multi-family housing is allowed by-right divided by the land area where residential development is allowed.

Figure B.1 shows a summary of these data. The median central city allows multi-family housing on only 13% of the residential land. Even global metropolises with millions of residents such as Los Angeles, Chicago, and Philadelphia, allow multi-family housing to be built on less than a quarter of their residential land. Across all American municipalities, the percentage of land allowing multi-family housing is likely even lower, since outlying suburban municipalities have a higher share of single-family homes.

This new measure differs from existing measures of land use regulation in the economics and urban planning literatures (e.g Gyourko, Hartley, and Krimmel 2021; Lo, Gallagher, and Pendall 2019; Mleczko and Desmond 2023; Mawhorter and Reid 2018) by using administrative, rather than survey, data and by measuring the amount of developable land rather than restrictions on the development process. Using surveys administered to city government planners and other city officials, existing measures look at many different local and state regulations that relate to land use and development. They capture important

3. In Table A.3 I compare the cities in this sample to those in the sampling frame on observable political and economic characteristics, finding no significant differences other than the cities in the sample tend to be larger in population.

4. I categorize a zone as multi-family residential if it is listed as such or if it allows more than three dwellings per lot by right. Mixed-use zones that allow both multi-family residential and commercial or office are counted as multi-family residential. Many zones allow conditional uses, where the owner must obtain an additional permit and often face a public hearing. Since the requirements for these conditional uses vary widely across cities, I restrict my coding of zones to what is allowed by-right. I do not accessory dwelling units, only primary units. Overlays that allow unconditional density increases are counted. In some cases, single family and multi-family zones make up all the land zoned for residential use, other cases have duplex or townhouse zones.

regulations such as supply restrictions, boards from which approvals are needed, delays associated with projects, and state legislative and court involvement. These items measure the difficulty of development conditional on it being possible, while my measure captures whether development is possible at all. Without multi-family zoning, no reduction in the number of public meetings, state-level environmental regulations, or any other barrier will allow the development of multi-family homes.⁵

Existing survey-based measures pose two additional challenges: survey items attempting to measure the difficulty of development or the average number of hearings or reviews may suffer from measurement error and coverage may be sparse due to low response rates. The Wharton Residential Land Use Regulation Index (WRLURI), the most commonly used data on land use regulation, primarily covers suburban rather than urban municipalities whereas other measures have sparse coverage outside the largest cities. Of the 197 central cities that make up the sampling frame for this study, the WRLURI covers 57 cities, the National Longitudinal Land Use Survey's 2019 wave (Lo, Gallagher, and Pendall 2019) covered 39 cities, and the Zoning Restrictiveness Index (Mleczko and Desmond 2023) covers 74 cities. I validate my measure of exclusionary zoning by examining its correlation with the two closest existing measures: the "Local Zoning Approval Index" from Gyourko, Hartley, and Krimmel (2021) ($r = 0.15$) and the "Zoning Restrictiveness Index" from Mleczko and Desmond (2023) ($r = 0.33$). The construction of these measures are described in more detail in Appendix C.

Other Outcomes and Pre-Treatment Measures

To control for pre-treatment zoning and land use, I digitize the 1940 Census of Housing tables on housing type, calculating the share of dwellings that are single-family homes (detached or attached). I use this as a pre-treatment measure of exclusionary zoning in the absence of zoning maps from the 1920s and 1930s. Although much of the housing stock in cities in 1940 was built before comprehensive zoning was enacted, zoning plans largely mirrored existing land use patterns (Shertzer, Twinam, and Walsh 2022).

To control for pre-treatment levels of other dependent variables, I collect data on city-level characteristics from the census and the International City Managers Association (ICMA) County and City yearbooks. Pre-treatment data on city racial composition and housing occupancy in 1940 are calculated from the full-count US census. Data on the number of single- and multi-family homes in 1940 are digitized from the Census of Housing.

To test the mechanisms behind exclusionary zoning, I collect decennial census data on homeownership

5. There are other important constraints on multi-family development in zoning codes, including minimum lot sizes. Using a panel of minimum lot size adoption and a similar empirical setup, Cui (2024) finds similar effects of Black migration on land use restrictiveness and isolates the period of the second Great Migration as the period when large minimum lot sizes are adopted by many municipalities.

from 1970-2010 from NHGIS tabulations of the decennial census. Data on city municipal institutions such as the size, composition, and seat type of city councils, come from the ICMA Form of Government survey for 1981-2011 and from 1973 (Aiken and Alford 1984). I further digitize the 1941 ICMA City and County Year Book to obtain pre-treatment measures of size and type of city councils, population density, and housing stock. Data on displacements, expenditures, and site plans for federal urban renewal projects come from Nelson and Ayers (2020) and Collins and Shester (2013). Finally, data on public opinion come from the American National Election Survey cumulative file spanning 1956-1998. I select all questions in the cumulative file that ask about race or racialized policies, and construct an additive index with scaled versions of all questions. Since the smallest geographic unit identified in the ANES is county, I restrict data to respondents who identified living in the ‘Central City’ in each county and assign them to the largest city in that county. All data sources are listed with their source, number of observations, and time coverage in Appendix Table A.1.

Predicting Black Population Growth

The 3.5 million African-Americans who migrated from the rural South to urban areas in the rest of the country between 1940 and 1970 did not select their destinations randomly. The decision to migrate was influenced by factors such as the economic and social conditions in the areas they left. It is plausible that land use policies, including the availability of high-quality and affordable housing, may have played a role in attracting migrants to certain cities. To overcome this endogeneity concern and causally identify the effect of demographic change on exclusionary zoning, I use a shift-share instrument in identification strategy developed in the migration economics literature and first applied to the Great Migration by Boustan (2016).

The shift-share instrument exploits quasi-randomness in shifts (predictors of outmigration) interacted with shares (predicted patterns of migration). I predict the number of migrants expected to leave each county in the South between 1940 and 1970 based on pre-1940 economic covariates. Then, I assign the predicted number of outmigrants from each county to cities in the North based on shares of prior migration patterns. Summing up the predicted arrivals from each county at the city level yields a predicted number of migrants to each city.

To predict outmigration, I exploit variation in local economic conditions that influence the decision of African-American migrants to leave counties in the South. Since one of the primary motivations for the Great Migration was to pursue better-paying and more favorable job opportunities in the North, differences in economic factors across counties can predict the likelihood of outflows. To mitigate post-treatment bias, I exclusively employ factors measured prior to 1940, such as agricultural suitability or existing trans-

portation infrastructure. These factors exhibit significant variation among counties, even within states and neighboring counties, resulting in different predictions for outmigration across different decades. For example, the mechanization of tasks that were previously performed by Black labor is highly indicative of workers leaving the South, and regions that specialized in different crops (e.g., cotton vs. tobacco) experienced mechanization at distinct times (Fligstein 1981).

I merge a set of pre-treatment measures of local economic conditions from (Boustan 2016) and net county migration by race for each decade (Gardner and Cohen 1992; Bowles et al. 2016). Then, following Derenoncourt (2022), I select a reduced set of covariates that minimize the residual sum of squares of the model. Using the Lasso-selected model coefficients and economic covariates, I generate predicted values of Black outflows for each county in each decade.⁶

To assign predicted migration to cities, I use prior patterns of Black migration. Since migrants leave for areas where they have family and social networks, it is likely that prior migration patterns predict future ones. Using the complete-count census from 1940, which asks county of residence in 1935, I create a matrix of migration from Southern counties to non-Southern cities over these 5 years.⁷ Neighboring states and even counties send different shares of their migrants to different cities. For instance, Chicago received nearly 10% of the Black population that left Mississippi between 1935 and 1940, but only about 3% of the population that left Alabama, a neighboring state. On the other hand, Detroit receives nearly 6% of the Black population that left South Carolina between 1935 and 1940, but only 3% of Mississippi's out-migrants.

The proportion of migrants from each county to each city (share) is multiplied with the predicted number of leavers from each county (shift) to generate a total number of predicted migrants for each county-city pair. Summing at the city level across counties and decades generates predicted Black in-migration for each city. The measure of Black population growth I use to capture the effect of the Great Migration is:

$$\hat{GM} = \frac{\Delta \hat{pop}_{Black}}{pop_{1940}}$$

6. Table C.4 shows the reduction in MSE for each decade relative to OLS predictions and Lasso predictions using other covariate sets. Relative to an ordinary least-squares regression model using hand-selected covariates from (Boustan 2016), using Lasso reduces mean-squared error by 50%. Table C.3 shows the covariates used to predict outmigration, which vary for each of the three decades between 1940 and 1970.

7. This procedure is similar to Derenoncourt (2022) who uses the complete-count Census to create county-county pairs to identify effects at the commuting zone level, and Boustan (2016), who creates state-county pairs. I further leverage the 5% micro-data sample of the 1960 census for cities with more than 100,000 inhabitants to predict 1960-1970 migration increases the strength of the instrument and accounts for the changing class composition of Black migrants in later decades (see Sears and McConahay 1973). Results using this adjustment for the 1960-1970 decade are substantively similar to just using the 1935-1940 shares for all decades.

\hat{GM} represents a reduced form estimate of the Great Migration. Since the effect is scaled by 1940 population, it captures similar scale changes in both small and large cities.

The key identification assumption of this empirical strategy is that pre-treatment economic conditions in Southern counties used to make outmigration predictions are uncorrelated with unobserved characteristics of Northern cities' zoning policies. Topographical features like number of rivers and valleys are unlikely to be correlated with Northern cities' zoning policies, but economic characteristics like funds spend on highways, number of manufacturing establishments and percentage of tenant farmers may have competitive effects on the economies of Northern cities that shaped zoning policies. While I am unable to test this assumption on unobserved characteristics, most crucially, pre-treatment levels of exclusionary zoning, I can verify the independence of measureable 1940 city characteristics to support the identifying assumptions.

Variable	Estimate	Std. Error	p-value
1940 Levels			
Log Population Density	1.65	1.92	0.39
Year of Comp. Zoning	29.45	12.44	0.02
% Owner	0.01	0.17	0.93
% Vacant	0.04	0.12	0.76
Log Population	1.02	2.93	0.73
Share of Pop. in CC	0.11	0.44	0.81
% Employed Manufacturing	0.61	0.47	0.20
Log Manu. Employers	-0.69	3.87	0.86
% Black	0.46	0.10	0.00
BW Segregation (Neighbor)	2.93	0.64	0.00
BW Segregation (Dissim.)	0.44	0.54	0.41
BW Segregation (Iso.)	2.05	0.55	0.00
1940 D Pres. Vote	-0.02	0.05	0.64
Pre-Trends			
Δ Pop. Density 1930-1940	3552.56	4860.81	0.47
Δ Emp. Pop. Ratio 1930-1940	0.03	0.09	0.74
Δ % Emp. Manu. 1930-1940	0.17	0.11	0.13
Δ D Pres. Vote 1932-1940	-0.01	0.06	0.79

Table 1—**Falsification Tests of Predicted Black Migration on Pre-Treatment Outcomes** Table shows regressions of predicted Black population growth on pre-treatment outcomes and on pre-trends. All levels measured in 1940 except date of first zoning ordinance, all pre-trends measured 1930-1940 except Democratic presidential vote share (1932-1940). All variables measured at the city level except Presidential vote share (county).

Table 1 shows the results of several falsification tests regressing predicted Black population growth on city characteristics measured in or before 1940, as well as pre-trends that measure the trajectory of political and economic trends prior to 1940. Taken in sum, I find that that future migration generally does

not predict past city characteristics and trends, helping support the assumption that predicted migration is plausibly as-if-random. I find no significant relationship between variables that capture land use in 1940 – population density, the percentage of home that are single-family residences, the ownership and vacancy rates, although cities that adopted a comprehensive zoning ordinance later predict more Black population growth. Characteristics of the city’s economy, which may serve as pull factors have similarly little effect on the predicted Black population growth. Turning to measures of the existing Black population of cities, I do find that cities with a larger existing Black population share, one of the three measures of Black-white segregation I examine, and more recent Southern white migrants predict more Black population growth. Finally, all else equal, county-level Democratic vote share correlates negatively with future Black population growth, although the size of the effect is substantively very small. To probe some of the statistically significant correlations, I look at pre-trends instead of levels, finding that some of the variables that in levels predict Black migration, such as the isolation measure of segregation and Democratic presidential vote share are not systematically changing prior to 1940. While some of the correlations challenge the assumption that migration is randomly assigned, it is unlikely that these factors were related to pre-treatment levels of exclusionary zoning in addition to Black population growth. Many legal options existed in 1940, and were used in place of exclusionary zoning, to explicitly segregate neighborhoods along racial lines.

To further probe whether the size of the existing Black population had an effect on 1940 zoning, I conduct a placebo test of the First Great Migration between 1900-1940. In Figure E.13, I show that this prior wave of Black migration is uncorrelated with the measure of exclusionary zoning that is affected by the 1940-1970 Second Great Migration. Additionally, using data on initial adoption of comprehensive zoning, I show no relationship between 1900-1940 Black population growth and the timing of zoning adoption.

Further examination of the assumptions behind the shift share empirical strategy, including the possibility of conflation of short- and long-term responses, spillovers between cities, and certain shifts accounting for a large source of the variation, are discussed in Appendix G.

Estimation

To estimate the effects of the Great Migration on exclusionary zoning, I estimate a series of OLS, reduced form, and two-squared least stage (2SLS) regressions. The OLS and reduced form equations take the form, respectively:

$$Y_i = \alpha + \beta GM_i + \gamma X_i + \epsilon_i$$

$$Y_i = \tilde{\alpha} + \tilde{\beta} \hat{GM}_i + \tilde{\gamma} X_i + \epsilon_i$$

Where Y_i is the percentage of residential land where multi-family housing can be built for city i , GM_i is the actual Black population change for city i for the OLS regression and \hat{GM}_i is the predicted Black population change. X_i is a matrix of pre-treatment control variables; analyses presented in the main text control for 1935-1940 Black migrants as a share of total population and when available, pre-treatment (1940) measures of the dependent variable. For additional analyses where outcome data are available for multiple time periods, I use a similar model as the above specification, but with the addition of year fixed effects and clustered standard errors at the city level.

Throughout the text, I primarily present and interpret the reduced form estimates. While the reduced form estimates rely on the identifying assumption discussed above, that the quasi-random shocks to predict Southern county outmigration are uncorrelated with characteristics of Northern cities' zoning policies, the 2SLS results require additional instrumental variable assumptions. The exclusion restriction, that predicted Black migration affects exclusionary zoning only through actual migration, assumes that the errors in migration prediction are systematically uncorrelated with land use policies. I discuss the exclusion restriction and other identifying assumptions for the 2SLS analyses in detail in Appendix G.

Results

Effect of Racial Diversity on Exclusionary Zoning

I present estimates of the increase in racial diversity and the prevalence of exclusionary zoning in the first three columns of Table 2. The top panel of the table show the coefficients from the model described in the previous section while the lower panel shows results from the same model with the addition of state fixed effects. In the reduced form estimate, a one percentage point increase in the Black population due to the Great Migration causes cities to zone nearly one percentage point less residential land for multi-family use in both the base specification and the fixed effects model. Substantively, this is quite a large effect: nearly 8% of the median level of multi-family zoning share (13%). The endogenous relationship in the first column between actual Black population growth and multi-family is about half the size, but still negative and statistically significant in the base specification. The point estimate from the two-stage least-squares analysis in the third column is larger than the reduced form estimate in the base model, although less precisely estimated. Adding fixed effects substantially reduces the strength of predicted Black population growth as an instrument, reducing the F-statistic on the first stage by nearly half. I therefore focus my interpretation on the reduced form estimate, which is free from the assumptions of instrumental variables in addition to being more precisely estimated.

I verify that this effect is robust to a number of different specifications in Appendix E, finding similar

	Southern Black Migration			Southern White Migration (Placebo)		
	OLS	RF	2SLS	OLS	RF	2SLS
Population Change	-0.50 (0.17)	-0.98 (0.33)	-1.36 (0.63)	-0.01 (0.01)	0.31 (0.52)	-0.07 (0.12)
35-40 Migrant % of Pop.	4.80 (3.08)	2.02 (2.78)	16.58 (8.28)	-0.58 (1.03)	-1.33 (1.25)	1.20 (4.10)
% SFH	-0.21 (0.11)	-0.19 (0.11)	-0.25 (0.11)	-0.13 (0.10)	-0.16 (0.10)	-0.01 (0.27)
FS Coefficient			0.44			-3.06
FS F-Stat			65			8.4
Num. obs.	125	125	125	125	125	125

Table 2—**Cities Zone Less Land for Multi-Family Housing in Response to Black Migration, No Effect of White Migration:** figure shows OLS, reduced form, and 2SLS estimates of Black (white) population change (as a share of total 1940 population) from Southern migration on percentage of residential land zoned for multi-family housing. "Population Change" variable is actual Black (white) migration for OLS and 2SLS models and predicted Black (white) migration for the RF model. Regressions control for percentage of housing stock that was single-family in 1940 and share of Black (white) population that migrated from the South from 1935-1940. Robust HC1 standard errors shown in parentheses.

results when controlling for various city characteristics from 1940, adding state fixed effects, and removing the top and bottom 5% of receiving cities from the sample.⁸

To address concerns that the effect on zoning from Black southern migrants is driven by characteristics of the migrants other than their race, such as poverty or competition for jobs, White migrants, who came from the same rural counties of origin as Black migrants, were similarly impoverished and unskilled due to their backgrounds in the Southern agricultural economy. They left the South for similar economic reasons as Black migrants and had similar effects on Northern cities' labor and housing markets when they arrived. I implement a placebo test: the effect of white southern migration on multi-family zoning. Using a shift-share instrument constructed using the same procedure as for Black migrants, I show that white southern migration cannot explain differences in exclusionary zoning today columns 4-6 of Table 2. The estimates are imprecisely estimated due to the weak instrument for white migration, which poorly predicts a city's white population growth since white migration occurred from regions other than the South, unlike Black migration. The OLS, reduced form, and 2SLS point estimates are all close to zero and in the case of the OLS results, precisely estimated. This evidence does not isolate the effect of race or rule out economic considerations, but the evidence is consistent with the race of Black migrants playing a role in the downzoning reaction to their arrival.

8. In Appendix G I construct weights based on which sending counties are driving variation in the predicted migration figures, following Goldsmith-Pinkham, Sorkin, and Swift (2020). Finding that Harris and Dallas counties in Texas have disproportionately large weights, I remove all Texas counties from the shift-share instrument and rerun the main analysis in Table E.10, finding nearly identical reduced-form results.

Public Opinion Mechanism

To examine the plausibility of the racial threat mechanism, I leverage survey evidence from the period to provide evidence consistent with white residents' racial backlash pushing city governments to adopt exclusionary zoning. First, I validate that white residents of cities impacted by the Great Migration were aware of the growing Black population around then—a manipulation check on experienced contact. Then, I turn to a test of the racial threat hypothesis, whether an increase in racial diversity leads to hostile attitudes towards the outgroup.

While the Great Migration led to Black population growth in nearly every city in the North, it is possible that white residents, ensconced in segregated neighborhoods, did not experience an increase in racial diversity in their everyday life. Given existing patterns of segregation and ideas of local context that do not correspond to administrative boundaries, it is not a given that white residents had the contact underpinning racial threat theory (Wong et al. 2012). Residents may also misperceive the size of groups, although for the purposes of verifying contact, I am merely interested in whether they perceive a change in the size of a group (Ahler and Sood 2018). I verify that whites noticed the changing demographics of their city by analyzing questions on the ANES about the racial makeup of five sites of socialization: among friends, neighborhoods, local schools, shopping areas, and the workplace. In each of these items, respondents are asked whether, in that setting, they interact with all white people, all Black people, or a mix. In order to activate racial threat, white respondents in cities where the Black population grew more due to the Great Migration must experience more interactions with African-Americans, particularly in their neighborhoods and schools. The top panel in Figure 1 shows that this is the case: white respondents in cities with more Black migration perceived higher levels of racial diversity in their neighborhoods, while shopping, and in local schools in cities with more Southern Black migration.

I argue that the most plausible link between increasing diversity on exclusionary zoning is from racially conservative whites demanding policy change to protect their neighborhoods from integration. Whites, who either wanted to remain in racially homogeneous neighborhoods, worried about their property values, or both, would be more likely to demand exclusionary zoning in cities that changed more as a result of the Great Migration. Since there are unfortunately no national survey questions from this time period about zoning, I use related questions on issues pertaining to race, integration, and urban issues. Restricting to items asked before 1970, I extract several types of questions: 1) feeling thermometers on welfare, a social policy primarily associated with Black Americans (Gilens 2009); George Wallace, the segregationist third-party candidate for the Presidency and a vector for white racial grievances; the civil rights movement; and Black Americans as a group 2) specific policy stances on open housing, racial discrimination in hiring,

school integration, and welfare, and 3) measures of racial progress, asking about the position of Blacks and the pace of the civil rights movement. All items are scaled to range between 0 and 1, where 1 is the racially conservative or anti-Black position.

Figure 1 shows the effect of a one percentage point increase in the city's Black population due to the Great Migration on the ANES items. I find this increase causes a 2.4% increase in the attitudes of white respondents using an additive index of all items listed below. As a robustness check, I show that the direction and magnitude of these results is consistent for all individual items and for each survey year when estimated in separate regressions (see Figure D.9). The OLS results using endogenous Black population growth show consistent, statistically significant effects, although smaller in magnitude ($b = 0.41, p = 0.01$). As a robustness check, I look at the effect on individual measures, finding large effects on individual measures for issues that are distinct to the local context like desegregation and busing. This reinforces the notion that attitudes are driven by concerns about self-interest and particularly the "pace and implication of change" (Bobo 1983, p. 1208).

While these attitudinal results are consistent with existing findings showing a white backlash to the Great Migration on the issue of open housing (Reny and Newman 2018), the geographic sampling of the ANES means that this analysis relies on a small number of counties that may be unrepresentative of all central cities. I conduct two robustness checks to probe the strength of this finding. First, I run a similar analysis on data from the Cooperative Election Survey from 2010-2022, which covers 187 of 197 central cities, finding similarly significant effects of Black population growth on white racial conservatism (see Figure D.10). Second, I extend the ANES analysis to include later waves from 1970-1998, finding consistent effects of racial backlash until 1990 (see Figure D.9). Also to alleviate concerns over the reliance on a small number of counties, I compute cluster bootstrapped standard errors in Appendix Table H.14 which are slightly larger than the conventional standard errors, but still produce significant effects on contact and attitudes at $p < 0.1$.

How did these shifting attitudes on race translate into local zoning policy? Land use is a natural policy area to expect responsiveness to local public opinion since it is primarily controlled by municipal and county governments. Given the limited set of policy areas that local governments have control over and the inextricable link between land use and race in a segregated city, changes in public opinion at the city level would lead to changes in land use policy in a responsive system. As in the similarly locally administered case of school busing, involvement in local interest groups and political meetings increased rather than individuals' participation in national elections (Green and Cowden 1992).

Newspaper reports indicate that zoning questions were contested in local politics during this time pe-

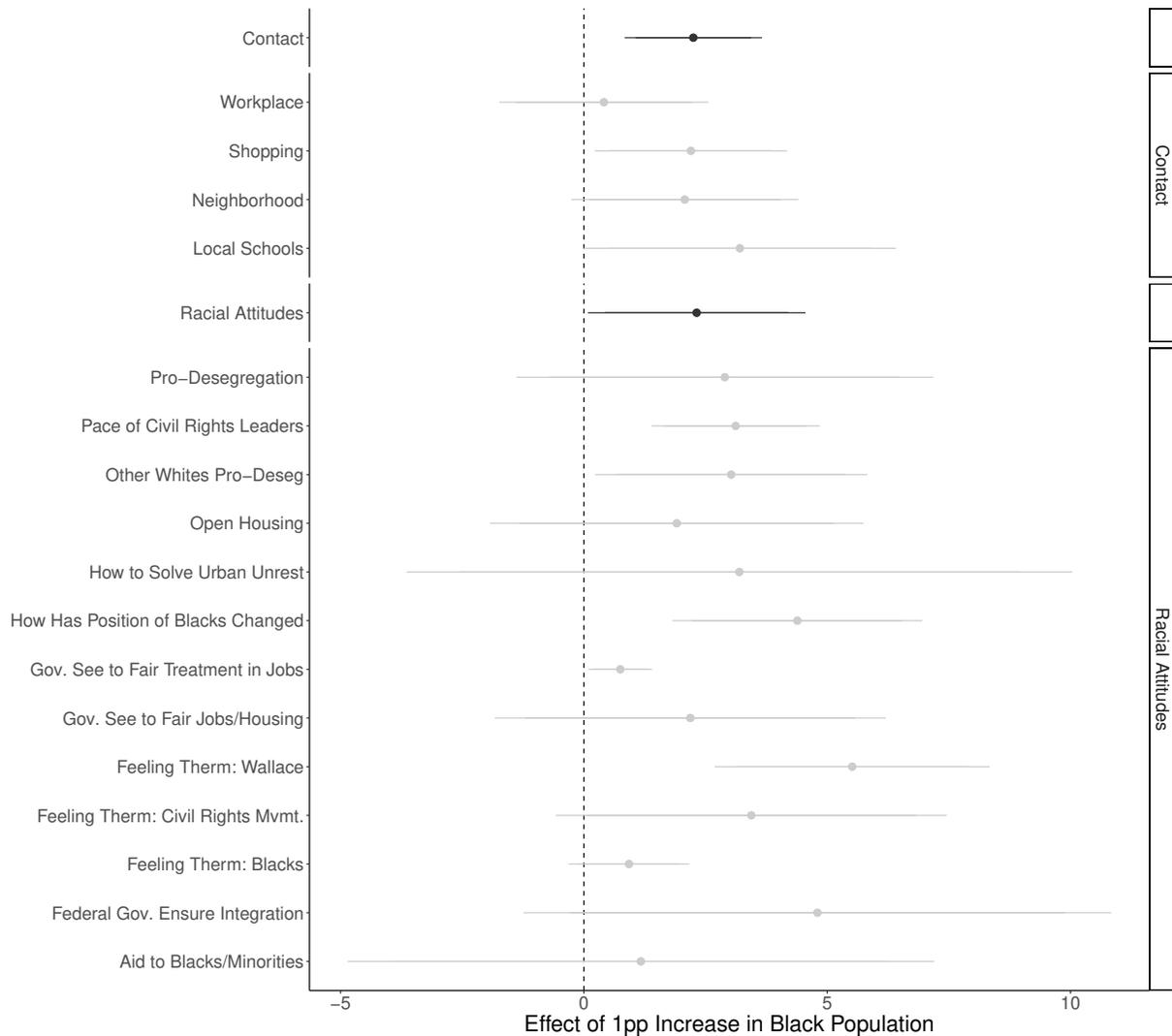


Figure 1—Whites Experience Rising Racial Diversity from Great Migration and Hold More Conservative Racial Attitudes

Note: Figure shows the reduced form effect of the predicted percent change in Black population on white survey responses. Top panel shows results on perceived Black integration. Second panel shows effects on an additive index of all race-related survey items. Third panel shows effects on individual survey items. Bottom panel shows effects on political behaviors and attitudes on local government. Points represent regression estimates; bars represent 95% confidence intervals. Regressions control for share of Black population that migrated from the South from 1935-1940; use year fixed effects; use robust standard errors; and are clustered at the county level. Data are subset to white respondents who live in the central city of the county. N=1,584 across 33 county clusters and 7 waves between 1956-1970 (for index). See Table D.5 for which items are asked in which years.

riod. Rezoning, particularly those that allowed multi-family housing, raised the attention of individual residents, organized interests groups, and elected officials. Residents began appearing at meetings of the city council and the planning commission, or similar body, to protest the encroachment of apartments into their neighborhoods. They organized in formal associations and hired legal counsel to assist them, as in the case of the Homeowners Protective Association of Kansas City, MO, in 1948, formed to prevent the lifting of occupancy limits on boarding houses in 1948 (Times 1948). While the number of residents who appeared in person to lobby elected officials may have been small in number, they credibly spoke for a majority of homeowners in their neighborhoods by collecting petitions (Farrar 1965). Elected officials responded to the activation of their constituents on this issue. Mayor Thomas C. Mayers of Stamford, CT, backed down on selecting specific sites for public housing apartments amid neighborhood controversy and a run for statewide office (AP 1966). John C. Richardson ran for city council in Orangetown, NY promising in an advertisement to “FIGHT APARTMENTS as your Councilman to prevent destruction of our residential neighborhoods”. Over time, neighborhood groups became skilled at navigating the zoning process, working proactively to advance their priorities instead of reacting to threats, and inserting themselves earlier in the process, often before public hearings. By 1965, The Morning News of Wilmington, DE reported “the role of civic associations in zoning is gradually changing from noisy opposition out in the open after rezoning requests are made to quiet, behind-the-scenes, consultation at an earlier stage” (Lieberman 1965).

Looking at mayoral elections provides more evidence that electoral politics were not centrally related to this story. Figure D.11 shows that the Great Migration had no effect on Democratic mayoral vote share, the closeness of elections, or overall turnout. The lack of an effect on Democratic vote share is perhaps surprising given that an increase in the African-American electorate would usually translate to increase Democratic vote share. One explanation is that within the Democratic primary electorate, African-American votes were not always contested depending on institutional features, like election types and frequencies (Grant 2020). Another possibility is that the increase in Democratic vote share from Black turnout was cancelled out by a corresponding increase in Republican vote share from conservative whites (Bazzi et al. 2021). But a compelling possibility is that the neighborhood-level politics of zoning policy and integration played out at a level lower than citywide elections: in district-based city council seats, public meetings and town halls, and in the city planning bureaucracy.

Alternative Explanations

Local Government Institutions

Another possible mechanism by which the Great Migration may have led to increased exclusionary zoning is by changing municipal government institutions to those that would be more likely to enact restrictive

zoning. At-large city council representatives are more likely to address global concerns like housing affordability compared to district-based representatives, who are more likely to cater to the 'not in my backyard' sentiments of their constituents (Hankinson and Magazinnik 2022; Clinger Mayer 1993).

Changes in electoral systems have also been used to dilute the voting power of racial minorities and cities change their electoral systems in response to the Great Migration. Segregated minorities may constitute a majority in one or more wards in a district-based system, but can have their preferred candidates shut out in an at-large system, depending on the context (Welch 1990; Trounstein and Valdin 2008). In cities impacted by the Great Migration, cities with smaller councils and at-large representation like Detroit saw fewer African-American representatives than large, ward-based councils in cities like Chicago (Grant 2020).⁹

I investigate whether cities that become more diverse from the Great Migration have more at-large representation on their city councils in Figure D.6. Using data from the ICMA Form of Government survey reported every five years from 1981-2006, 1963 data from Aiken and Alford (1984), and newly digitized data from the 1941 Municipal Year Book, I find that the Great Migration had a positive and significant, but substantively negligible, effect on the percentage of seats that are elected at-large. This is consistent with cities trying to dilute the electoral power of spatially concentrated minorities, but cannot explain a locally-driven rise in exclusionary zoning. A one percentage point increase in Black population growth causes a 0.35% increase in the share of at-large seats. However, given the median city in the sample has 8 seats on their council in 1981, a city would need see a 35pp increase in Black population to shift one seat, making it unlikely that many cities experienced an actual change in their council's composition. While this provides limited evidence for a shift to at-large seats to dilute Black political power, there is no evidence that the variation in exclusionary zoning due to the Great Migration can be explained by local representative institutions.

Homeownership

The prevailing existing explanation for the prevalence of exclusionary zoning is demand from homeowners, who participate at higher levels in local politics and who are more likely to oppose new development and permissive zoning (Fischel 2001; Yoder 2020). I test whether homeownership rates changed in response to Black population growth in Figure D.5. I find evidence against the mechanism of increased homeownership driving exclusionary zoning. This is driven by differential homeownership rates by race—I find that Black homeownership rates increased (Boustan and Margo 2013) while white homeownership did not. As a

9. I find that Black population growth due to the Great Migration weakly increased Black representation on city councils. Figure D.7 shows that the proportion of Black city council members increases by 0.39% for every percentage point of Black population growth.

result of white flight, African-Americans were better positioned to purchase, rather than rent, their homes. However, unlike the white residents who they replaced, they were likely less supportive of exclusionary policies, making changes in Black homeownership specifically an unlikely driver of zoning changes.

Federal Intervention: Urban Renewal

Finally, I examine the role that federal urban renewal projects could have played in precipitating zoning changes in Great Migration cities. Urban renewal, where localities sought federal funds from the Housing Acts of 1949 and 1954, prompted cities to conduct extensive land use surveys and create new comprehensive plans and zoning. These plans often involved identifying blighted neighborhoods and demolishing them for renewal, but also may have led to the protection of safe and marginal neighborhoods through downzoning.

The increased salience of public housing, largely housing African-Americans by the end of the Great Migration since white residents had many more exit options, could have sparked a backlash among whites in neighboring areas opposed to future low-income housing from being constructed (Enos 2016). Since wealthy neighborhoods were particularly successful at fighting urban renewal projects and highways in their neighborhoods, it stands to reason they would be similarly successful in influencing the siting of public housing (Mohl 2002; Brinkman and Lin 2019).

Using data on urban renewal projects, I examine the effect of the Great Migration on urban renewal spending and project types (Collins and Shester 2013; Nelson and Ayers 2020). I find no relationship between Black population growth and urban renewal spending, making it unlikely that they could account for differences in exclusionary zoning. Figure D.8 shows estimates of the effect of Black population growth on total funds dispersed to cities, the total funds approved per capita, and the proportion of project land re-used for various categories, including residential use. All estimates are indistinguishable from zero. However, looking at a larger set of cities not restricted to central cities, Shi et al. (2022) find that cities impacted more by the Great Migration were granted more urban renewal projects and funds and saw more families displaced as a result.

Discussion

The racial threat literature emphasizes the importance of specifying the context; to examine zoning, the municipality is the appropriate context since it is the unit in which residents share many public goods and the governmental unit that sets zoning regulations. Other studies which examine the effects of Southern migration use Congressional districts to examine voting on civil rights discharge petitions, (Calderon, Fouka, and Tabellini 2023) counties to examine Presidential voting patterns and racist institutions such as

KKK chapters and sundown towns (Bazzi et al. 2021), and commuting zones to examine economic mobility (Derenoncourt 2022). Looking at public opinion, Calderon, Fouka, and Tabellini (2023) aggregate the same ANES data that I examine to the state level, finding that white voters became more racially liberal in states that experienced more Black population growth. While understanding state-level opinion change is surely important, particularly in the context of studying Congressional action, the majority of white respondents were not in or near neighborhoods or municipalities that underwent demographic change. In Figure C.3, I show that the majority of Black arrivals within commuting zones moved to in the central city rather than outlying areas. Rather than seeing racial threat spill over into suburban areas, it seems that the absence of contact may have had positive effects on whites' racial tolerance.

While the effects that I document are one of many examples of whites' racial threat from exposure to Black Americans, racial hierarchies in the United States and elsewhere may take different forms. There is ample reason to think that the use of zoning to promote segregation is not unique to the context of the mid-century Great Migration. In the United States, white racism against Latinos motivated the downzoning of the Los Angeles neighborhood of Echo Park in 1971. A planning study commissioned by the city warned that "the rapidly changing ethnic composition of the Silver Lake-Echo Park communities will soon transform Echo Park into a Mexican-American barrio" and endorsed downzoning as a way to stabilize a declining neighborhood (Torgerson 1971). Local governments also turned to zoning as a tool to repel undocumented immigrants in the early 2000s (Hopkins 2010). Contemporary migration of refugees into Europe has caused political backlash, promoting residential segregation (Balkan et al. 2018) and decreasing natives' willingness to support public housing (Hangartner et al. 2019).

What changed after the time period that I examine in this article? As the economic advantages of the North decreased and Jim Crow was dismantled, many African Americans moved back to South in a reverse Great Migration (Derenoncourt 2022). Additionally, as workers and jobs became mobile due to the growth of the interstate highway system that the continuation of existing urban growth patterns—central business districts, waterfront industry and shipping—needed to be prescribed in zoning codes (Fischel 2004). As cities began to grow again, fears over decline, white flight, and abandonment were replaced with concerns over gentrification and displacement in many areas.

In Appendix F, I examine the long-run consequences of the Great Migration, find that Black population growth led to less multifamily housing construction and higher levels of residential segregation. While downzoning is surely not the only mechanism behind both these trends, it is likely a key constraint on the integration of white, single-family neighborhoods.

Today, housing affordability problems are often most acute in liberal cities, whose politicians and voters

are cast as hypocritical for supporting general redistribution not addressing their local housing affordability problems. I show that the link between liberal cities and land use restrictiveness is not necessarily a causal one, but rather due to common underlying factors. The Great Migration both made cities more liberal, primarily through changing increasing the African-American share of the electorate, and more restrictive of land use. While white liberal city-dwellers are more racially conservative in places with higher levels of diversity, they are still far more racially liberal, and supportive of integration, than their suburban and rural counterparts.

The Southern United States has the lowest levels of land use regulation according to regulatory indices, the highest housing production, and the lowest housing costs in recent decades. The comparatively looser land use regulation is not necessarily because cities in the South were losing Black population during the Great Migration—in fact, Southern cities were also receiving large waves of migration from rural areas nearby. Instead, a more likely explanation is that overt racial discrimination was more permissible in the South for longer than in the rest of the country. While white flight and conflicts over shared public goods were common in Southern cities, the responses were more often municipal secession or privatization than zoning reform (Kruse 2013).

This article also does not speak to the numerous suburban municipalities that were not yet incorporated in 1940. Many of these municipalities were created with the express purpose of disallowing non-white residents entirely (Self 2005). These municipalities have, on average, more restrictive land use regulations than cities built up before the automobile with robust public transportation and dense, multi-family housing. While the area zoned for multi-family housing in large urban municipalities is small, many suburban municipalities disallow multi-family housing entirely.

New research grappling with the political causes of housing affordability speaks to why decades-old changes in zoning caused by the Great Migration are so difficult to reverse. As the complexity of land use planning grew during the post-War period, more opportunities for public participation were built into the process. Yet, these institutions are marked by starkly unequal participation by race, age, and housing status (Einstein, Glick, and Palmer 2019; Yoder 2020). The scale of local decision-making in the American federal system means that regional affordability concerns are not prioritized while local NIMBY interests dominate. Within cities, the patterns of Great Migration-era exclusionary zoning concentrate the only potential for development in a handful of low-income communities of color or formerly industrial areas. This makes debates over new housing development occur primarily between developers and low-income residents fearful of displacement (Been, Ellen, and O'Reagan 2018). Finally, the resurgence of overtly racial appeals to voters has made clear that the threat of racially integrated neighborhoods continues to motivate

political action (Trump and Carson 2020).

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