The Effects of the Great Migration on Urban Renewal*

Ying Shi
Syracuse University

Daniel Hartley
Federal Reserve Bank of Chicago

Bhash Mazumder
Federal Reserve Bank of Chicago

Aastha Rajan
Federal Reserve Bank of Chicago

January 18, 2022

Abstract

The Great Migration significantly increased the number of African American people moving to northern and western cities beginning in the first half of the twentieth century. We show that their arrival shaped "slum clearance" and urban redevelopment efforts in receiving cities. To estimate the effect of migrants, we instrument for Black population changes using a shift-share instrument that interacts historical migration patterns with local economic shocks that predict Black out-migration from the South. We find that local governments responded by undertaking more urban renewal projects that aimed to redevelop and rehabilitate "blighted" areas. More Black migrants also led to an increase in family displacement. This underscores the contribution of spatial policies such as urban renewal towards understanding the long-term consequences of the Great Migration on central cities, and Black neighborhoods and individuals.

*We are especially grateful to Justin Madron, Brent Cebul, and the Digital Scholarship Lab team at the University of Richmond for the dataset on urban renewal projects with accompanying shapefiles. We also thank Ellora Derenoncourt and participants at the 2020 Urban Economics Association conference, the 2020 Federal Reserve System meeting on Regional Economics, and the 2021 Federal Reserve System meeting on Applied Microeconomics for helpful comments. The views expressed here do not necessarily represent the views of the Federal Reserve Bank of Chicago or the Federal Reserve System.

1 Introduction

The Great Migration instigated a drastic shift in the racial composition of American cities. Between 1940 and 1970, over four million African Americans left the South and settled in the North and the West. Previous studies suggest that there were substantial economic gains experienced by Black Americans who migrated during this period (Collins and Wanamaker, 2014; Boustan, 2017). On the other hand, research documents negative consequences on the well-being of Black migrants ranging from health (Black et al., 2015) to an increased probability of incarceration (Eriksson, 2019).

New work exploring the long-term consequences of the Great Migration suggests that negative effects extend to Black descendants of the original migrants. Derenoncourt (2021a) finds significant detrimental effects on the upward mobility prospects of Black children born around 1980 who grew up in cities that were more affected by the Migration. Her study suggests that this was due to responses of local municipalities that received large in-flows of Black migrants rather than any compositional effects stemming from selective migration. For instance, cities more affected by the Great Migration increased spending on police and incarceration. This emphasis on the role played by cities echoes Boustan (2010)'s finding that mid-century Black geographic mobility affected the responses of local governments in ways that induced White flight.

One aspect of the response of cities that has received less attention in the literature is the role of housing, land redevelopment, and related spatial policies. We show that cities receiving high inflows of Black migrants due to plausibly exogenous factors exhibited a marked increase in the likelihood of ever initiating an urban renewal project as well as an increase in the total number of such projects undertaken. Urban renewal programs were federally subsidized local efforts aimed at the clearance of "blighted" urban neighborhoods for redevelopment and rehabilitation. The program began in 1949 with the creation of the Federal Housing and Home Finance Agency that offered cities significant financial support for redevelopment projects. The use of eminent domain as delegated by state governments enabled local municipalities to clear residential areas, often accompanied by the planned displacement and relocation of families.

To estimate the causal effect of the Great Migration on cities' urban renewal policies, we adopt an empirical approach based on the Bartik or shift-share instrument commonly used in the trade and migration literatures (Altonji and Card, 1991; Card, 2001). The fundamental identification

challenge is that migrants select into destinations outside of the South based on factors such as local demand conditions. A valid instrument for Black migration inflows into northern cities must not affect local demand conditions and other city-level shocks except via predicted inflows. To construct such an instrument, we rely on an interaction between historical settlement patterns of Black migrants and so-called "push factors," or local economic conditions in southern sending cities. Boustan (2010) was the first to apply this instrument to the Great Migration context and our implementation closely follows that of Derenoncourt (2021a) and utilizes the code she has generously made publicly available (Derenoncourt (2021b)).

The analysis relies on a sample of the largest 713 cities by population in the northern and western United States, with corresponding actual and predicted inflows of Black migrants based on the instrumental variables strategy described above. Data on urban renewal efforts come from the Digital Scholarship Lab at the University of Richmond and are based on federal directories of urban renewal project timing, funding, and attributes. As far as we are aware, this dataset provides the most comprehensive record of urban renewal activity to date. Overall, we are able to link data on inflows of Black migrants across our sample of cities to rich information on urban renewal projects.

Our empirical strategy examines the effect of Black migration during 1940-1950, instrumented using the interaction of 1935-1940 settlement patterns and Southern "push factors", on receiving cities' urban renewal activity beginning in 1955. We find that cities that experienced an increase in Black migration were significantly more likely to undertake at least one urban renewal project. A 10-percentile point increase in the actual migration of Black individuals led to an 11 percentage point increase in ever having had an urban renewal project between 1955 and 1974. This represents a 16% increase relative to the average participation rate in urban renewal activities. We also document significant effects on family displacement. Shifting from a city at the 25th percentile in terms of migration of Black individuals to the 75th percentile resulted in a 1.7 percentage point increase in the share of households estimated to be displaced by urban redevelopment efforts. Furthermore, we find that an increase in Black migrants led to the clearance of more dwelling units and greater land acreage for projects.

Our study contributes to several strands of literature. Despite the historical prominence of urban renewal, there are very few studies in economics on these policies. While we examine urban

renewal efforts in response to the arrival of Black migrants, existing work focuses on the effect of urban renewal on neighborhoods and cities. Collins and Shester (2013) find positive effects of urban renewal in aggregate city-level data on income, property values, and population.[1] LaVoice (2019) uses a sample of the largest 28 cities to document the association of urban renewal with increasing neighborhood rents and incomes that are accompanied by a reduction in affordable housing, suggesting that disadvantaged families are made worse off by urban renewal policies. LaVoice (2019) also finds that Black neighborhoods were disproportionately more likely to be targeted for "slum" clearance and redevelopment even after accounting for the extent of blight. These findings echo the concerns about urban renewal programs raised in the broader literature, including the relocation of families and lack of good quality replacement housing, the disproportionate impact on low-income Black families, and loss of cohesive neighborhoods and social capital (Johnstone, 1958; Wilson, 1966; Anderson, 1967; Hoffman, 2000; Fullilove, 2001). We contribute to the literature by asking whether these programs were undertaken in response to increasing numbers of Black residents as part of the Great Migration.

In doing so, our paper builds on a growing literature on the effects of the Great Migration on both the migrants themselves as well as their descendants. Previous studies suggest that negative consequences for Black migrants and their progeny arise from a decline in the quality of the urban environment for families (Boustan, 2010; Derenoncourt, 2021a). Spatial policies such as urban renewal and land redevelopment played a key role during the middle of the twentieth century in shaping central cities and their inhabitants (Ammon, 2016). Urban renewal often took place contemporaneously with land clearance for highway construction projects, which in turn facilitated population departure into the suburbs (Baum-Snow, 2007). A closer examination of the influence of urban renewal and related spatial policies may shed light on recent findings of decreased social mobility resulting from the Great Migration (Derenoncourt, 2021a), as well as clarify their potential contribution to the influence of neighborhood effects on intergenerational mobility (Chetty and Hendren, 2018a,b).

[1]Collins and Shester (2013) assess whether cities with more urban renewal funding experienced more rapid economic growth as of 1980. For identification, they use an IV strategy that exploits variation among states in the timing of when states had passed enabling legislation that would allow for the exercise of eminent domain. Such legislation was crucial for the ability to implement a project and the timing of such legislation is arguably due to idiosyncratic factors and thus might be viewed as plausibly exogenous. They find that the effects of urban renewal programs were positive for income, property values, and population. Nevertheless they caution that this finding does not mean that the dislocation costs for residents and businesses were unimportant and they do not implement a full cost-benefit analysis.

2 Background

2.1 The Great Migration

The Great Migration was one of the most important demographic events in American history. It led to a dramatic redistribution of the African American population from the South to urban locations in the North and West that provided substantially better economic and social opportunities. Black Americans were motivated to leave the South by both push and pull factors. Declining opportunities to work in agriculture in the South, coupled with an increase in manufacturing outside the South, were prominent factors. Recent research has shown that Black migration was facilitated by greater educational opportunities (Aaronson and Mazumder, 2011), social networks (Stuart and Taylor, 2019) and access to trains (Black et al., 2015).

In the first phase of the Great Migration, between 1910 and 1940, approximately 1.5 million Black individuals left the South.[2] The second phase, between 1940 and 1970, was substantially larger as it resulted in four million additional migrants. As a result, the Black share of residents in the major receiving cities of New York, Philadelphia, Chicago, Detroit, and Los Angeles increased from just 3% in 1910 to 26% by 1970 (Collins, 2020). This seminal event had long-lasting social and economic ramifications. Boustan (2017) notes that southern migrants went to urban locations that were characterized by tight and racially segmented labor markets and a limited supply of housing. This led to a substantial degree of White flight to the suburbs, thereby fundamentally transforming these cities.

Previous research has shown that Black migrants roughly doubled their earnings by leaving the South (Collins and Wanamaker, 2014; Boustan, 2017). In recent work, Baran et al. (2020) show that the children of migrants also experienced higher educational attainment. However, these gains for migrants also came at the cost of a higher risk of mortality (Black et al., 2015) and a higher probability of incarceration (Eriksson, 2019).

[2] Figure 1a shows the number of Black migrants relocating to northern and western cities from the south at the end of this first phase during 1935-1940.

2.2 Urban Renewal

The federal government assumed an increasingly prominent role in public housing and urban redevelopment during the 1930s and 1940s, in the aftermath of the Great Depression and World War II (Gelfand, 1975; Fogelson, 2001). One particularly salient issue was the potential spread of so called "slums" or areas of "urban blight." The expanding constituency in support of "slum clearance" included local officials, central city business interests, and low- and moderate-income housing advocates, yet attempts to redevelop these areas ran up against land assembly and cost issues (Teaford, 2000; von Hoffman, 2000). Concerns around the lack of legal power and financial resources accelerated calls for a centralized planning authority and federal subsidies for urban redevelopment (Wilson, 1966).

In 1949, as part of the unveiling of his Fair Deal agenda, President Truman mentioned in his State of the Union address that "five million families are still living in slums and firetraps". That same year the American Housing Act was passed and Title I of the law provided federal financing for "slum clearance" programs associated with urban redevelopment projects. The Act enabled the Housing and Home Finance Agency (HHFA), which was the precursor to HUD, to support local governments by providing grants of two-thirds of the net cost of acquiring and clearing properties (Collins and Shester, 2013).[3]

The process of initiating an urban redevelopment project begins with a Local Public Agency (LPA) that is permitted under state law to exercise eminent domain (Collins and Shester, 2013). The LPA would identify an area characterized by "blight" and then acquire the land for redevelopment (LaVoice, 2019). The LPA would then hold public hearings, obtain local approval, and ultimately permission from the HHFA in order to begin the planning process.

Title I in the Housing Act of 1949 relied primarily on large-scale demolition and rebuilding. While complete clearance was the predominant mode of addressing so-called slums, there was increasing support for conservation and rehabilitation as an alternative approach (Wilson, 1966). Reforms to the original legislation came in the Housing Act of 1954, which expanded the program to include conservation of existing historical structures, building code enforcement, and relocation

[3]The net cost is the difference between the cost of acquiring land and its reuse value. Local governments needed to repay the remaining one-third, but were allowed to do so in cash or in kind (von Hoffman, 2000).

of displaced families (Wilson, 1966).[4] As a result, the amount of land clearance varied greatly from project to project, and funded projects expanded from largely residential to also include non-residential structures such as office buildings and stadiums (von Hoffman, 2000).

The pace of urban renewal escalated quickly, from a total of 31 communities in 1950 to 772 by mid-1965, when nearly 1,600 projects were underway (Wilson, 1966). Taken together, more than $5 billion were authorized for urban renewal and nearly two thousand projects were approved by the federal government in the first two decades of its operation (National Commission on Urban Problems, 1969; von Hoffman, 2000).

Over time, the urban renewal program came under increasing criticism. Some pointed to its role in reducing the scope of affordable residential housing. A survey of 1,155 urban renewal projects in 1966 found that while two-thirds were predominantly residential before the project began, only 43% remained so afterwards (National Commission on Urban Problems, 1969). The same report found that even when new construction was for residential purposes, the increase in rent frequently priced out former occupants.

The burden of displacement also fell disproportionately on communities of color, as 54% of displaced families were non-White (of Housing and Urban Development, 1967). Some contend that urban renewal was a tool used to level Black neighborhoods under the guise of economic development (Hirsch, 2000; Fullilove, 2001). Opponents argued that these projects decreased the already scarce stock of affordable housing for Black families and preserved a pattern of racial segregation (Teaford, 2000). These critiques were joined by conservative voices emphasizing diminished personal liberty as a result of expanded federal authority (Anderson, 1967). The mounting criticism and popular discontent in the 1960s and early 1970s led to the end of the urban renewal program in 1974 (Teaford, 2000).

[4]The term "urban renewal" comes from the 1954 Act, signaling a more comprehensive approach beyond "urban redevelopment."

3 Data and Descriptive Statistics

3.1 City Characteristics

In order to study the impact of the Great Migration on cities' urban renewal efforts, we assemble a city-level dataset from multiple sources. The sample of receiving cities comes from the complete count 1940 Census and the 1944-1977 County and City Data Book. We restrict to cities with a population of at least 10,000 outside of the South, which excludes the states of Alabama, Arkansas, Florida, Georgia, Kentucky, Louisiana, Mississippi, North Carolina, Oklahoma, South Carolina, Tennessee, Texas, Virginia, and West Virginia. The final sample contains 713 cities.

City-level population estimates come primarily from the 1940 Census with supporting information from the County and City Data Book. This includes the total count as well as population data for Black individuals. Corresponding Black population data in 1950 comes from the 1950 Census of Population, which describes racial demographics for cities with a population of 10,000 or more. This enables the calculation of 1940-1950 changes in local Black populations. Finally, city-level characteristics such as the share of the labor force in manufacturing, average income, and educational attainment also come from the 1940 complete count Census.

3.2 Urban Renewal Projects

Our database of urban renewal projects comes from the Digital Scholarship Lab at the University of Richmond. Project characteristics are from the federal government's *Urban Renewal Project Characteristics* issued quarterly from 1955 to 1966. These reports are drawn from information submitted by local public agencies to meet Housing and Home Finance Agency requirements for the planning and implementation of urban renewal projects. Project-level attributes include the project's name, date, city, federal funding amount, acreage, number of standard and substandard dwelling units to be demolished, and number of White and non-White families residing in the designated project areas. Note that the number of White and non-White families in these documents reflect estimated displacements as reported to the federal government by local municipalities.[5] Similarly,

[5]Our estimates likely are a significant undercount of true displacement. Federally-funded urban renewal projects continued for eight additional years, but we only have estimated displacement information through 1966. Moreover, data exists only for families, not displaced individuals, because relocation assistant grants were directed towards families only. Other reasons for undercounting include misclassifying families of color as White, or excluding nonconforming households (Cebul, 2020).

data on dwelling units show an estimate of the number of dwelling units targeted in the areas to be cleared for development.

Funding data comes from the annual *Urban Renewal Directory* reports issued by the U.S. Department of Housing and Urban Development. It includes both the federal grants approved for a particular project as well as the final disbursed amount from 1957-1974. Dates on the projects' planning and execution come from both *Urban Renewal Project Characteristics* and *Urban Renewal Directory*. For projects observed multiple times in the federal records, we take the most recent observations of project attributes and funding. We then collapse observations from the project to the city level. We merge this dataset with the base sample of 713 cities to determine the prevalence of cities with at least one urban renewal project.

3.3 Descriptive Statistics

Table 1 presents descriptive statistics for the sample of 713 cities. The average receiving city has a population of nearly 72,000. This contrasts with the median population of over 22,000 due to a small cluster of large cities. Cities saw an average increase in Black population of 2,720 individuals between 1940 and 1950. Two-thirds of cities in our sample had at least one urban renewal project. Figure 1b shows a high concentration of these projects in the urban northeast, as well as metropolitan areas such as Chicago and Detroit. The 480 cities with any urban renewal activity averaged 4.4 projects over the two-decade period spanning 1955-1974. The timing of these projects was fairly evenly distributed across time, with approximately one project every five years. The federal aid allocated towards these urban renewal efforts totaled 302 dollars per capita, of which half was eventually disbursed.

Many urban renewal projects involved the planned displacement of families. Participating cities planned to displace an average of 446 families, of whom 216 were White and 230 were non-White. The share of displacements made up by non-White families is 52%, less than the 54% reported by of Housing and Urban Development (1967) in part because the dataset restricts to cities outside of the South.[6] When expressing estimated displacement as a share of the city's households, non-White families ostensibly comprise a smaller share since urban renewal projects

[6] As Table A1 shows using the full project-level sample, non-White families comprise over 56% in the full dataset, compared to 54% in non-southern cities.

that involve the displacement of these families take place in larger cities. Family relocation is accompanied by the clearance of dwelling units within project area boundaries. On average, cities in our sample clear 649 units as part of their urban renewal efforts.[7] Taken together, urban renewal projects in an average city cover 6.9 acres.

4 Research Design

4.1 Instrumental Variables Approach

Our empirical approach is based on the Bartik or shift-share instrument commonly used in the trade and migration literatures (Altonji and Card, 1991; Card, 2001). Boustan (2010) was the first to apply this instrument to the Great Migration context. The main challenge for causal inference is the endogenous destination choices of Black migrants, which may depend on factors such as the availability of well-compensated jobs in receiving cities. To address this issue, we construct an instrument based on shocks to migrants' origin locations in the South (so-called "push factors") and interact it with historical settlement patterns of Black migrants.

Economic fluctuations in the predominantly agricultural and mining sectors in the rural South are unlikely to be correlated with local demand conditions in the North and West, which rely heavily on manufacturing and services. An economic shock to cotton production in the South, for example via cotton harvesters and related forms of mechanization, can push Black workers and households away from origin cities and counties (Grove and Heinicke, 2003; Heinicke and Grove, 2005). In order to ensure that predicted Black migration is not responding to contemporaneous labor market factors in northern cities, we rely on historically persistent migration routes out of the South. These routes were heavily influenced by railroad infrastructure designating origin-destination city pairs that led to long-term community networks. There was substantial variation existing within states and regions (Black et al., 2015). For example, residents of eastern Mississippi on the *Mobile and Ohio* line were likely to migrate to the northern terminus of St. Louis while residents of western Mississippi along the *Illinois Central* were more likely to head to Chicago.

[7] Over 77% of all dwellings cleared are "substandard". The precise definition of substandard dwelling is left to local authorities and have been measured by taking into account construction, maintenance, plumbing facilities, sanitary conditions, and overcrowding (Johnstone, 1958). This aligns closely with the share of dwelling units deemed substandard in the project-level sample.

These migratory routes were well established by the first wave of the Great Migration, prior to World War II.

The combination of historic settlement patterns determined by the placement of railroad lines and exogenous push factors in the South creates changes in Black migration flows that are plausibly orthogonal to local demand conditions in northern and western cities.[8] This interaction is used to instrument for actual changes in Black population from 1940-1950 as a share of the 1940 population in the receiving cities, as shown below:

$$\widehat{mig_c} = \sum_j (\omega_{cj}^{1935-1940} \cdot \widehat{mig_j}) \tag{1}$$

Black predicted migration in receiving city c during 1940-1950 ($\widehat{mig_c}$) is a function of historical migration patterns from sending county j to city c from 1935 to 1940 ($\omega_{cj}^{1935-1940}$) and predicted migration from the southern county based on economic push factors ($\widehat{mig_j}$) during 1940-1950. Whereas Boustan (2010) relied on cross-state variation in economic shocks to generate predicted migration from sending southern states, this formulation utilizes the complete count 1940 Census to leverage variation in push factors across more than 1,200 counties rather than a limited number of states. This formulation therefore closely follows Derenoncourt (2021a) but departs from it in two important ways. First, instead of aggregating up to the commuting zone level, we use city-level observations in our analytic sample. Second, since urban renewal programs began around 1950, we predict migration flows only between 1940 and 1950 whereas Derenoncourt (2021a) predicts flows from 1940 to 1970.

$\omega_{cj}^{1935-1940}$ is calculated as the share of Black southern migrants living in city c in 1940 that report residing in county j in 1935. Data come from the 1940 Census, which asks respondents to report their place of residence in 1935. This permits a comprehensive view of recent Black migration to northern and western cities. Predicted migration in the second component of Equation 1 is based on estimates of net county-level Black migration rates in 1940-1950 as a function of southern

[8] Goldsmith-Pinkham et al. (2020) describe the Bartik or shift-share approach as having two key components: the "shares" and the "shocks", and they provide a very useful decomposition approach which allows us to gauge the extent to which our variation is coming from each source. We show the results of this decomposition in Appendix Table 6. In our case, the "shares" are the previous fraction of each city's population composed of Black migrants from each Southern county due to historical settlement patterns that we describe in greater detail below. The "shocks" are the push factors affecting Southern counties also described below.

economic conditions in 1940 ($\mathbf{Push}_j$):

$$MigRate_j = \gamma + \mathbf{Push}_j'\Gamma + \epsilon_j \tag{2}$$

where $MigRate_j$ is calculated as the change in Black population from 1940 to 1950 in county j divided by the Black population in county j in 1940. To determine the contents of $\mathbf{Push}_j$, we begin with the nine economic conditions outlined in Boustan (2010) and select a subset using a Post-LASSO estimation procedure to improve its predictive power.[9]

The eight variables included in the vector of push factors are the percent acreage planted in cotton, share of farmers as tenants, WWII spending per capita, share of the labor force in agriculture, the interaction between a tobacco growing state and share in agriculture, share of the labor force in mining, being in a mining state, and the interaction between the share of the labor force in mining and being in a mining state. Source data for these economic factors are all taken from the City and County Data Book, with the exception of cotton acreage which comes from the National Agricultural Statistical Service, Censuses of Agriculture, and the ICPSR project on Population and Environment in the U.S. Great Plains. The predicted level of county-level Black migration ($\widehat{mig_j}$) is calculated by multiplying the Black population in county j in 1940 by the predicted net Black migration rate ($\widehat{MigRate_j}$) from estimating Equation (2). $\widehat{mig_j}$ is then used as an input into computing city-level predicted net migration ($\widehat{mig_c}$) in Equation (1). On average, cities in our sample received 588 Black migrants between 1940-1950, with a standard deviation of 5,277.

4.2 Empirical Specification

We are interested in estimating the causal effect of Black migration on city-level outcomes. The first stage relationship between actual Black population change in receiving cities and the instrument of predicted Black migration in 1940-1950 is summarized by the following equation.

$$ActMig_c = \lambda + \rho\widehat{mig_c} + \mathbf{x}_c'\Theta + \varepsilon_c \tag{3}$$

Both actual migration and the instrument of predicted migration are computed as shares of

[9]This approach follows Derenoncourt (2021b). One difference is that our Lasso procedure selects eight best predictors instead of seven variables as in Derenoncourt (2021a).

the 1940 city population, expressed in percentiles. The choice of functional form is informed by the heavily right-skewed distribution of changes in the Black population. $\mathbf{x}_c'$ denotes a vector of covariates measured in 1940 including the share of the population comprised of 1935-1940 Black migrants, share of the labor force in manufacturing, log average income, mean years of schooling, share of women who are married, and state fixed effects. We include these covariates to increase the precision of our estimates and also for robustness. For example, we account for the prevalence of manufacturing jobs in destination cities since many Black migrants were attracted to economic opportunities in the industrialized North. Even though the instrument only relies on agricultural and mining push factors in the South instead of manufacturing pull factors, controlling for the baseline prevalence of manufacturing jobs provides further assurance that local governments' responses to new Black arrivals are not influenced by variation in local economic conditions. The addition of state fixed effects absorbs time-invariant state characteristics that may be associated with the propensity to undertake urban renewal projects and related spatial policies. The analogous reduced form equation is as follows:

$$Y_c = \alpha + \beta \widehat{mig_c} + \mathbf{x}_c' \Omega + \epsilon_c \tag{4}$$

For ease of interpretation, we re-scale the instrument so that β is the effect of a 10-percentile point increase in predicted Black net migration as a share of the population on city-level outcomes. Causal inference is plausible so long as the instrument, conditional on baseline covariates, affects cities' spatial policies only through predicted migration inflows and not local labor demand factors or related shocks. Identification rests on the orthogonality between the shift-share instrument and the unobserved residual. Reliance on a smaller administrative unit, such as county, is advantageous because it creates shocks for hundreds of origin locations that are plausibly unrelated to shocks in destination cities. While we cannot test directly for this orthogonality, we undertake additional analyses to assess the robustness of our findings, including examining whether we observe similar results from White in-migration.

5 Results

5.1 First Stage

Table 2 confirms a strong association between actual and predicted Black migration. The reported coefficient corresponds to ρ from the first stage equation regressing the percentile of actual Black population change in receiving cities from 1940-1950 on the percentile of predicted migration over the same period and a set of baseline characteristics.

A 10-percentile point increase in predicted Black migration is associated with a 2.5 percentile point increase in actual migration from 1940 to 1950.[10] The coefficient is highly significant, with a Kleibergen-Paap F-statistic of over 13. Figure A1 provides a visual representation of this relationship between predicted and actual migration of Black individuals residualized on the set of covariates. It reveals no apparent outliers, such that the relationship is robust to omitting particular cities from the sample.

5.2 Effects of Black Migration on Urban Renewal

Table 3 shows OLS, reduced form, and two-stage least squares (2SLS) estimates of the effect of Black migration on cities' urban renewal activities. We examine both the margin of participation - whether cities have at least one urban renewal project - and the extent of federal grants approved. Reduced form estimates of β show the effect on city-level outcomes of a 10-percentile point increase in predicted Black migration from 1940-1950. The bottom row presents 2SLS estimates of the effect of a 10-percentile point increase in actual Black migration on receiving cities' urban renewal efforts.

The OLS results indicate that a 10-percentile rise in actual Black migration is associated with a 6.3 percentage point increase in the likelihood of the city having at least one urban renewal project. The reduced form estimate indicates that a 10-percentile rise in predicted Black migrants increases the likelihood of the city having at least one urban renewal project by 2.7 percentage points. The corresponding 2SLS estimate indicates that cities experiencing a 10 percentile point increase in actual Black migration are 11 percentage points more likely to have undertaken at least one urban renewal project during the study period. Relative to a baseline participation rate of

[10] Note that two dozen cities are omitted from this analysis due to missing data on Black populations in 1950.

67%, this translates to an increase of approximately 16%. The second column of Table 3 focuses on the amount of federal grants approved for urban renewal projects. According to 2SLS estimates, a 10-percentile point increase in actual Black migration led to the approval of an additional $34 per capita in federal grant money, although the effects are not statistically significant. Note that these coefficients are statistically similar to, if not larger than, effects estimated via OLS. OLS coefficients could be upwardly biased depending on the nature of omitted variables, or vary from 2SLS due to the local average treatment effect estimated only for the sub-population of compliers.[11]

Having established that Black migration appears to increase a city's likelihood of undertaking an urban renewal project, we now turn to examining the nature and scope of these efforts and their consequences. Table 4 focuses on three dimensions: estimated family displacement, the number of dwelling units targeted for clearance, and the scope of project land. The 2SLS estimate from column 1 shows that a 10-percentile point increase in Black migrants leads to a 0.3 percentage point rise in the number of displaced families as a share of the city's total household count. To put this effect size in context, moving from the 50th percentile in terms of actual Black migration to the 90th percentile would increase the share of displaced households by an amount that nearly doubles the average share of estimated displacement in our sample. We furthermore split the household counts by race into White and non-White families. Corresponding effects are 0.16 and 0.18 percentage points on the estimated displacement of White and non-White families, respectively. Given the size of standard errors, we cannot rule out that the impact of the Great Migration is statistically equivalent across these two groups. Next we consider the effects on dwellings that cities propose to demolish. An increase of 10 percentile points in Black migration increases the planned clearance of dwellings by 365 units. The corresponding rise in total land area slotted for urban renewal projects is 3.6 acres. Greater Black in-migration from the South increases the amount of land redeveloped for residential purposes by 1.3 acres, with the remaining two-thirds directed towards commercial, industrial, public, and rights-of-way purposes.[12]

The evidence suggests that Black in-migration led to expansions in the amount of land cleared

[11] Omitted variables that can potentially account for a smaller OLS relative to 2SLS coefficient include the quality of neighborhood amenities and housing stock, which is likely negatively correlated with Black population change in receiving cities and likely positively correlated with urban renewal activity. Another potential example is the presence of a more vibrant civil society sector focused on Black political participation, which is likely positively correlated with the number of new Black arrivals but negatively correlated with urban renewal efforts.

[12] The effects on acres of land cleared for commercial, industrial, public, and rights-of-way purposes are available in Appendix Table A2.

under the urban renewal program, with slightly over one-third reserved for dwelling and related residential use. This prompts the question of whether the Great Migration might contribute to fewer dwelling units, as previously residential neighborhoods are converted to industrial or commercial use. We use supplementary data on city-level dwelling characteristics during 1950 and 1960 from the County and City Data Book to examine the effect of Black migration on the number and attributes of homes. Appendix Table A3 shows that a 10-percentile point increase in Black migrants decreased the number of dwelling units by nearly 550. This coefficient is measured with considerable noise, and its magnitude may partially be explained by data availability among only the 310 largest cities. While the coefficients on the share of homes with detached structures and hot running water and private bath are negative, they are not statistically significant.

The results thus far link Black migration flows from 1940-1950 to subsequent urban renewal activities beginning in 1955. We focus on 1940-1950 due to the volume of migration during the decade and to ensure that our instrument temporally precedes any urban renewal activity. A potential disadvantage is that the Great Migration continued for another two decades through 1970 and our approach does not take advantage of temporal variation in migration. To address this, Appendix Table A4 creates analogous instruments for predicted Black migration from 1950-1960 and 1960-1970 to examine their effects on additional urban renewal projects in the following decade. Dependent variables in Columns 1-3 are the number of new projects during 1955-1959, 1960-1969, and 1970-1974, respectively. In the reduced form, a 10-percentile point increase in predicted Black migration during 1940-1950 increases the number of new projects during the latter half of the 1950s by 0.11. For reference, the corresponding 2SLS coefficient is 0.45 additional projects from an increase in actual Black migration, a sizable increase relative to an average of 0.89 projects during this period. Columns 2 shows that the reduced form estimate increases to 0.29 when examining the effect of predicted Black migration in 1950-1960 on new projects in the 1960s, while the coefficient is only 0.07 in Column 3. The drop-off in effect magnitude during the last decade of the Great Migration and urban renewal activity coincides with the program's waning popularity and political support.[13]

[13]In addition to temporal variation, we also examine whether the effects of Black migration during 1940-1950 were influenced by the political preferences of residents in receiving cities. Due to data limitations, we use county-level variation in the 1940 Democratic vote share, Republican vote shares across 1868-1916, as well as voter turnout in 1940 to test for heterogeneous treatment effects. We find no evidence of heterogeneity in the magnitude of effects across quartiles of any of these measures for partisanship or political participation.

5.3 Robustness and Placebo Checks

To ensure that our estimates capture the causal effect of Black in-migration on city-level outcomes, we undertake a number of placebo and robustness tests. First, we examine whether cities' responses are specific to the arrival of Black migrants, since White southerners were also moving to these same destinations. Table A5 shows the relationship between actual White in-migration during 1940-1950 and cities' participation in any urban renewal activity, as well as planned family displacement and clearance of structures and land. The coefficients on southern White migration convey no relationship between any of these variables after adjusting for actual Black migration during the same period and baseline characteristics such as the share of the labor force in manufacturing, average income, educational attainment, and state fixed effects.[14] This exercise indicates that our main results are particular to the in-migration of *Black* Americans, and do not capture the consequences of Southern arrivals more generally.

There is some concern, however, that White southern migrants may not have be the ideal comparison group as they may have been moving to somewhat different areas of the North and for different reasons. To better address this we also examine patterns of historical European migration into cities in our sample. Industrial northern cities experienced a negative shock to European immigrant labor supply stemming from the onset of World War I and changes to U.S. immigration policy in the 1920s (Thomas, 1973). They increasingly turned to Black workers from the South to meet the rising demand for industrial production (Collins, 2020). As such, cities with higher numbers of Black arrivals may share attributes, namely reliance on European immigrant labor and extent of industrialization, that affect their policies toward urban redevelopment. Our instrument specifically addresses such concerns by using variation in Southern push factors that are orthogonal to receiving cities' economic conditions. We furthermore include manufacturing intensity and baseline controls in all of our specifications. Table A6 goes one step further by directly accounting for the role of European migration on our results. We use an instrument for county-level European immigrant labor based on historical access to railroad lines and cross-temporal variation in immigration volumes as described in Sequeira et al. (2020). Our findings on the effect of Black migration do not change after conditioning on this predicted variation in European immigration.

[14] White in-migration data at the city-level come from Derenoncourt (2021a), who similarly finds no effect of White southern in-migration on her outcome of interest: Black men's upward mobility.

Taken together, these results show a minimal role of historical European migration in explaining the consequences of Black in-migration on urban renewal activity.

Finally, we attempt to address concerns regarding the identification of our instrumental variable. Our Bartik instrument is formed by taking the inner product of historical settlement patterns of Black migrants and predicted migration flows from southern counties. One might be worried that historical migration patterns of Black individuals from the south are correlated with destination city characteristics which would violate the assumption that the shares are exogenous to the outcome variable. Recent work by Goldsmith-Pinkham et al. (2020) evaluating the identification in Bartik research designs finds that such estimators can be understood as a "pooled exposure design" in which the "shares measure differential exogenous exposure to shocks", which in our case are the shares of Black southern migrants living in a southern county in 1935 that report residing in a northern city in 1940. Following Goldsmith-Pinkham et al. (2020), we decompose our instrument into Rotemberg weights to assess what variation in the data is driving the estimates.[15] Table A7 details summary statistics about the Rotemberg weights. A majority of the weights ($\sim$70%, panel A of Table A7) are positive and the weights are highly correlated with predicted migration flows from southern counties. The correlation between Rotemberg weights and predicted migration flows is 0.905 (panel B of Table A7) which means that the migration flows predicted by southern "push-factors" explain about 80% of the variation in the weights. Conversely, the weights are weakly correlated with variation in historical migration shares ($Var(z_k)$) with a low correlation coefficient of -0.054.

Another exercise for checking validity is to correlate our instrument with changes in political outcomes in receiving localities. We construct a variable on the change in Democratic vote share in Congressional elections from 1940-1950 using county-level data (Calderon et al., 2021). The correlation coefficient is -0.01, suggesting that the instrument is orthogonal to measures of changes in political preferences. Taken together, the evidence gives us confidence in the validity of our instrument.

[15] Our main results use the "share" version of the instrument - predicted Black migration computed as shares of the 1940 city population, expressed in percentiles. However, the Rotemberg decomposition does not accommodate this transformation. Therefore, we use the level of predicted Black migration to compute the Rotemberg weights. Although this does not directly map to our instrument, we believe this is still a useful exercise for assessing the plausibility of the channels through which the instrument affects the estimates.

6 Conclusion

The internal migration of millions of African Americans to urban areas outside of the South in search of better opportunities marks a massive demographic shift with lasting consequences. Despite substantial economic gains among participants of the Great Migration, research also documents that Black migrants suffered negative health consequences and Black children growing up in receiving cities decades later experienced reduced upward mobility (Black et al., 2015; Derenoncourt, 2021a). Evidence suggests that responses from local governments culminated in a deterioration in the quality of the urban environment. However, research is still limited on the *nature* of these responses, especially in the ways they manifest in cities' urban spatial policies.

This paper examines the effect of the Great Migration on receiving cities' urban renewal efforts. This ambitious federally-subsidized and locally planned program involved the large-scale assembly and redevelopment of land in central cities. We show that in response to the arrival of Black migrants in the middle of the twentieth century, cities in the North and West were more likely to undertake urban renewal projects and redevelop areas of "urban blight." We find that a rise in Black migration significantly increased the estimated number of displaced families and demolition of existing structures.

Our results suggest that the redevelopment and rehabilitation of central cities is a potential mechanism that can illuminate the adverse long-term health or intergenerational impacts of the Great Migration previously documented in the literature. Cities were not passive recipients of new Black households, and responded systematically by reconstructing urban spaces in ways that altered the quality of these communities. Future work should continue to investigate the lasting consequences of these spatial policies on Black Americans and neighborhoods.

References

Daniel Aaronson and Bhashkar Mazumder. The Impact of Rosenwald Schools on Black Achievement. *Journal of Political Economy*, 119(5):821–888, October 2011.

Joseph G. Altonji and David Card. The Effects of Immigration on the Labor Market Outcomes of Less-skilled Natives. *Immigration, Trade, and the Labor Market*, pages 201–234, January 1991. Publisher: University of Chicago Press.

Francesca Russello Ammon. *Bulldozer: Demolition and Clearance of the Postwar Landscape*. Yale University Press, January 2016.

Martin Anderson. *The Federal Bulldozer: A Critical Analysis of Urban Renewal, 1949-1962*. McGraw-Hill, 1967.

Cavit Baran, Eric Chyn, and Bryan A Stuart. The Great Migration and Educational Opportunity. page 79, 2020.

Nathaniel Baum-Snow. Did Highways Cause Suburbanization?*. *The Quarterly Journal of Economics*, 122(2):775–805, May 2007.

Dan A. Black, Seth G. Sanders, Evan J. Taylor, and Lowell J. Taylor. The Impact of the Great Migration on Mortality of African Americans: Evidence from the Deep South. *American Economic Review*, 105(2):477–503, February 2015.

Leah Platt Boustan. Was Postwar Suburbanization "White Flight"? Evidence from the Black Migration. *Quarterly Journal of Economics*, 125(1):417–443, February 2010.

Leah Platt Boustan. *Competition in the Promised Land: Black Migrants in Northern Cities and Labor Markets*. Princeton University Press, 2017.

Alvaro Calderon, Vasiliki Fouka, and Marco Tabellini. Racial Diversity and Racial Policy Preferences: The Great Migration and Civil Rights. Working Paper 28965, National Bureau of Economic Research, June 2021. URL `http://www.nber.org/papers/w28965`. Series: Working Paper Series.

David Card. Immigrant Inflows, Native Outflows, and the Local Labor Market Impacts of Higher Immigration. *Journal of Labor Economics*, 19(1):22–64, 2001.

Brent Cebul. Tearing Down Black America, July 2020. URL `http://bostonreview.net/race/brent-cebul-tearing-down-black-america`.

Raj Chetty and Nathaniel Hendren. The Impacts of Neighborhoods on Intergenerational Mobility I: Childhood Exposure Effects. *The Quarterly Journal of Economics*, 133(3):1107–1162, August 2018a.

Raj Chetty and Nathaniel Hendren. The Impacts of Neighborhoods on Intergenerational Mobility II: County-Level Estimates. *The Quarterly Journal of Economics*, 133(3):1163–1228, August 2018b.

William J. Collins. The Great Migration of Black Americans from the US South: A Guide and Interpretation. Technical Report w27268, National Bureau of Economic Research, June 2020.

William J Collins and Katharine L Shester. Slum Clearance and Urban Renewal in the United States. *American Economic Journal: Applied Economics*, 5(1):239–273, 2013.

William J. Collins and Marianne H. Wanamaker. Selection and Economic Gains in the Great Migration of African Americans: New Evidence from Linked Census Data. *American Economic Journal: Applied Economics*, 6(1):220–252, January 2014.

Ellora Derenoncourt. Can you move to opportunity? Evidence from the Great Migration. pages 1–123, 2021a.

Ellora Derenoncourt. Replication data for: Can you move to opportunity? Evidence from the Great Migration, 2021b. URL `https://www.dropbox.com/sh/kjecoqnd5wnosww/AAAWYxw-VtQfPyDUdqUUupxPa?dl=0`.

Katherine Eriksson. Moving North and into jail? The great migration and black incarceration. *Journal of Economic Behavior & Organization*, 159:526–538, March 2019.

Robert M. Fogelson. *Downtown: Its Rise and Fall, 1880-1950*. Yale University Press, January 2001.

M. T. Fullilove. Root shock: the consequences of African American dispossession. *Journal of Urban Health: Bulletin of the New York Academy of Medicine*, 78(1):72–80, March 2001.

Mark I. Gelfand. *A Nation of Cities: The Federal Government and Urban America, 1933-1965*. Oxford University Press, 1975.

Paul Goldsmith-Pinkham, Isaac Sorkin, and Henry Swift. Bartik Instruments: What, When, Why, and How. *American Economic Review*, 110(8):2586–2624, August 2020.

Wayne A. Grove and Craig Heinicke. Better Opportunities or Worse? The Demise of Cotton Harvest Labor, 1949-1964. *The Journal of Economic History*, 63(3):736–767, 2003. Publisher: Cambridge University Press.

Craig Heinicke and Wayne A. Grove. Labor Markets, Regional Diversity, and Cotton Harvest Mechanization in the Post-World War II United States. *Social Science History*, 29(2):269–297, 2005. Publisher: Cambridge University Press.

Arnold R. Hirsch. Searching for a "Sound Negro Policy": A Racial Agenda for the Housing Acts of 1949 and 1954. *Housing Policy Debate*, 11(2):393–441, January 2000.

Alexander von Hoffman. A study in contradictions: The origins and legacy of the housing act of 1949. *Housing Policy Debate*, 11(2):299–326, January 2000.

Quintin Johnstone. The Federal Urban Renewal Program. *The University of Chicago Law Review*, 25 (2):301–354, 1958.

Jessica LaVoice. The Long-Run Implications of Slum Clearance: A Neighborhood Analysis. *Working paper*, page 72, 2019.

National Commission on Urban Problems. Building the American city: report of the National Commission on Urban Problems to the Congress and to the President of the United States., 1969.

US Department of Housing and Urban Development. Urban Renewal Project Characteristics, June 30, 1966. Technical report, US Department of Housing and Urban Development, Washington, D.C., 1967.

Sandra Sequeira, Nathan Nunn, and Nancy Qian. Immigrants and the Making of America. *Review of Economic Studies*, 87(1):382–419, 2020.

Bryan A. Stuart and Evan J. Taylor. The Effect of Social Connectedness on Crime: Evidence from the Great Migration. *The Review of Economics and Statistics*, pages 1–46, August 2019.

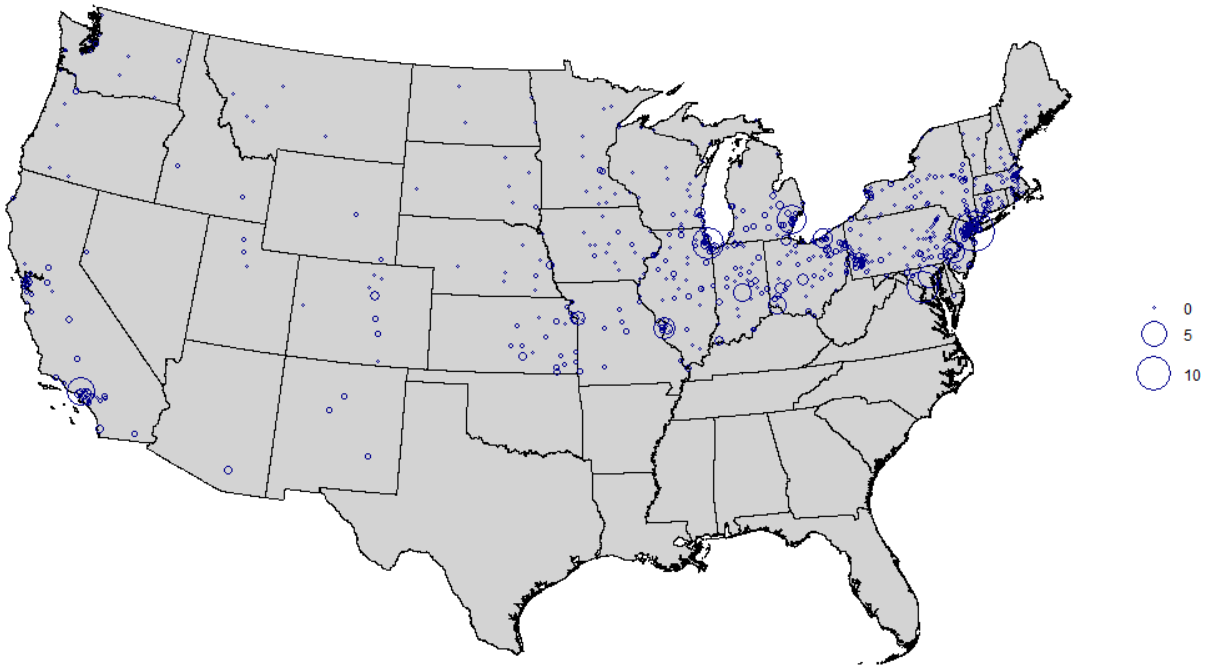
Jon C. Teaford. Urban Renewal and Its Aftermath. *Housing Policy Debate*, 11(2):443–465, January 2000.

Brinley Thomas. *Migration and Economic Growth: A Study of Great Britain and the Atlantic Economy*. Cambridge University Press, Cambridge Eng., 2nd edition edition, May 1973.

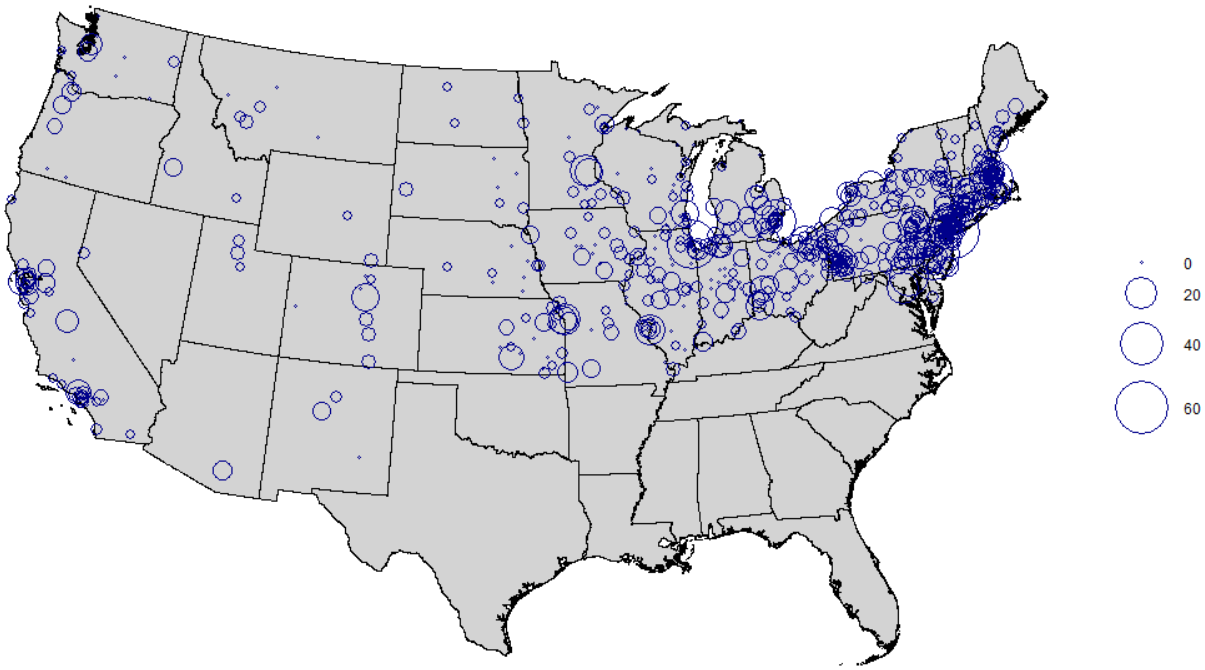
Alexander von Hoffman. A study in contradictions: The origins and legacy of the housing act of 1949. *Housing Policy Debate*, 11(2):299–326, January 2000.

James Q. Wilson. *Urban Renewal: The Record and the Controversy*. M.I.T. Press, 1966.

Figure 1: City-Level Black Migration and Urban Renewal Projects



(a) Total Black Southern Migrant Population, 1935-1940 (in Thousands)



(b) Total Number of Urban Renewal Projects

Notes: Black southern migrant population data relies on the 1940 Census, which identifies the number of Black migrants who moved from a southern place of residence in 1935 to a non-southern residence by 1940.

Table 1: Summary Statistics

	Mean	Std. Dev.	N
City population: 1940	71766	336161	713
Actual Black population increase, 1940-1950	2720	17493	687
At least one urban renewal (UR) project	.67	.47	713
City-level characteristics, cond. on at least one UR project:			
No. of UR projects	4.4	5.7	480
No. of UR projects, 1955-1959	.89	2	480
No. of UR projects, 1960-1964	1.1	1.8	480
No. of UR projects, 1965-1969	1.4	2	480
No. of UR projects, 1970-1974	1.1	1.3	480
Federal grants approved for city, per capita	302	323	480
Federal grants disbursed for city, per capita	159	177	480
Estimated displacement: Total no. of families	446	1639	480
Estimated displacement as share of 1940 city households (%)	1.4	2.3	467
Estimated displacement of White families as share of city HHs	.87	1.5	467
Estimated displacement of non-White families as share of city HHs	.54	1.3	467
Estimated clearance: No. of dwelling units	649	2424	480
Project land total acres	6.9	21	480

Notes: The sample consists of 713 city-level observations. Per capita federal grants are calculated as the total sum approved or disbursed divided by the 1940 city population. *** $p<0.01$, ** $p<0.05$, * $p<0.1$

Table 2: First Stage - Effect of Predicted Black Migration on Actual Migration

Instrument:	Actual Black Population Increase During 1940-1950, Percentile (1)
Predicted Black Migration, Percentile	0.253***
	(0.066)
Observations	679
Kleibergen-Paap Wald F-Statistic	13.46

Notes: The table shows the relationship between the percentile of actual Black population increase in receiving cities and the instrument for Black population increase during 1940-1950. The instrument is the percentile of predicted Black population increase in 1940-1950 as a share of city population in 1940. Specifically, the instrument is defined as the interaction between pre-1940 Black southern migration patterns and post-1940 outflows of migrants as predicted by southern economic factors alone. The specification includes a vector of covariates from 1940, including the share of the receiving city population comprised of 1935-1940 Black migrants, the share of the labor force in manufacturing, log average income, mean years of schooling, and share of women who are married. We furthermore include state fixed effects and standard errors are bootstrapped at the state level. The sample excludes cities with missing data on 1950 Black populations. *** $p<0.01$, ** $p<0.05$, * $p<0.1$.

Table 3: Effect of Black Migration on Urban Renewal Participation

	Dependent variables:	
	At Least One UR Project	Per Capita Grant Approved
	(1)	(2)
OLS		
Actual Black Migration (10 Perc.)	0.0627***	23.87***
	(0.00867)	(5.019)
Observations	675	675
Reduced Form		
Predicted Black Migration (10 Perc.)	0.0271***	8.568
	(0.00843)	(5.563)
Observations	675	675
2SLS		
Actual Black Migration (10 Perc.)	0.107***	33.83
	(0.0268)	(33.11)
Observations	675	675

Notes: Reduced form estimates are the effect of predicted Black migration on urban renewal outcomes. The instrument is the percentile of predicted Black population increase in 1940-1950 as a share of city population in 1940. Specifically, the instrument is defined as the interaction between pre-1940 Black southern migration patterns and post-1940 outflows of migrants as predicted by southern economic factors alone. Coefficients should be interpreted as the effect of a 10-percentile point increase in predicted Black migration. The 2SLS estimates are the effect of a 10-percentile point increase in actual Black population on urban renewal outcomes. All specifications include a vector of covariates from 1940, including the share of the receiving city population comprised of 1935-1940 Black migrants, the share of the labor force in manufacturing, log average income, mean years of schooling, and share of women who are married. We furthermore include state fixed effects and standard errors are bootstrapped at the state level. *** p<0.01, ** p<0.05, * p<0.1.

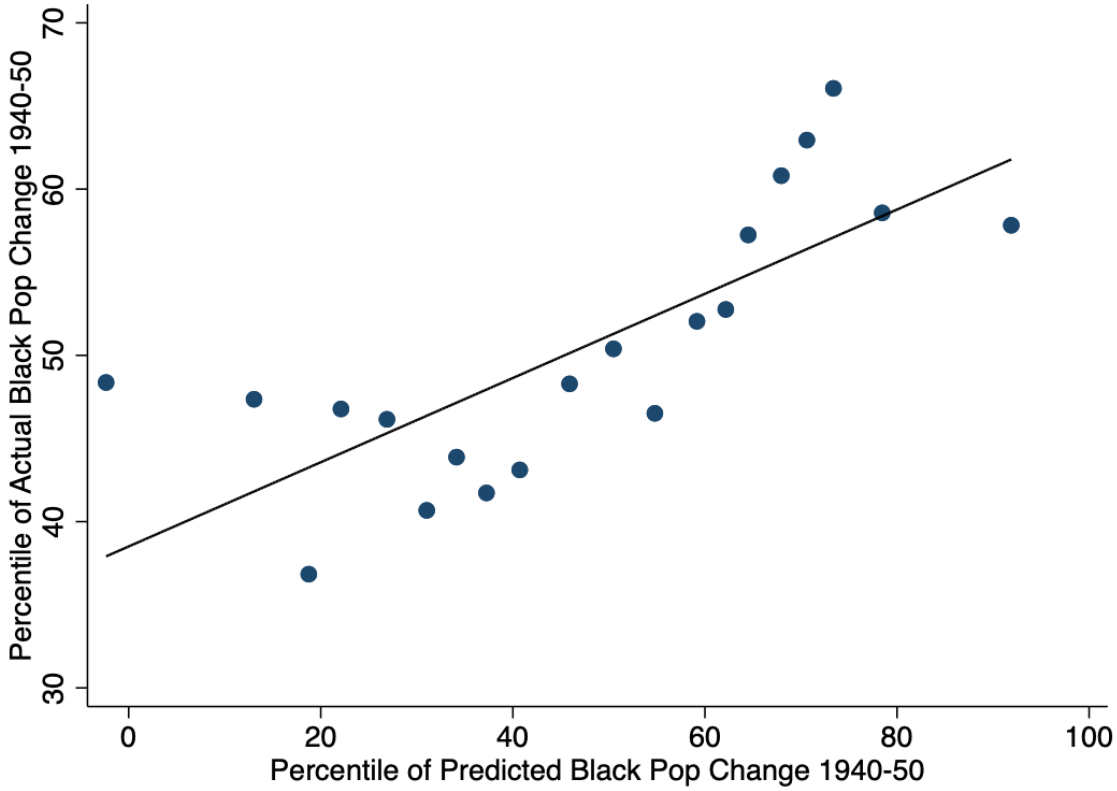
Table 4: Effect of Black Migration on Urban Renewal Characteristics

	Displaced Families as Share of Total Households:			Dwelling Units Cleared	Project Land Acreage
	Total	White	Non-White		
	(1)	(2)	(3)	(4)	(5)
OLS					
Actual Black Migration (10 Perc.)	0.204***	0.0905***	0.114***	182.2***	1.708***
	(0.0267)	(0.0184)	(0.0151)	(32.78)	(0.283)
Observations	675	675	675	675	675
Reduced Form					
Predicted Black Migration (10 Perc.)	0.0852***	0.0407***	0.0445**	92.46***	0.910***
	(0.0290)	(0.0150)	(0.0218)	(34.68)	(0.253)
Observations	675	675	675	675	675
2SLS					
Actual Black Migration (10 Perc.)	0.336***	0.161*	0.176**	365.0***	3.592***
	(0.121)	(0.0902)	(0.0745)	(113.7)	(1.204)
Observations	675	675	675	675	675

Notes: Reduced form estimates are the effect of predicted Black migration on urban renewal outcomes. The instrument is the percentile of predicted Black population increase in 1940-1950 as a share of city population in 1940. Specifically, the instrument is defined as the interaction between pre-1940 Black southern migration patterns and post-1940 outflows of migrants as predicted by southern economic factors alone. Coefficients should be interpreted as the effect of a 10-percentile point increase in predicted Black migration. The 2SLS estimates are the effect of a 10-percentile point increase in actual Black population on urban renewal outcomes. All specifications include a vector of covariates from 1940, including the share of the receiving city population comprised of 1935-1940 Black migrants, the share of the labor force in manufacturing, log average income, mean years of schooling, and share of women who are married. We furthermore include state fixed effects and standard errors are bootstrapped at the state level. *** $p<0.01$, ** $p<0.05$, * $p<0.1$.

APPENDIX

Figure A1: First Stage



Notes: The graph shows the relationship between the residualized Black population change as share of city population during 1940-1950 and residualized actual Black population change as share of population, after controlling for the share of the receiving city 1940 population comprised of 1935-1940 Black migrants, the share of the labor force in manufacturing, log average income, mean years of schooling, share of women who are married, and state fixed effects. The scatterplot then groups the residualized instrument into 20 equal-sized bins. All data is at the city level.

Table A1: Summary Statistics - Project-Level Characteristics

	All projects		Outside of South	
	Mean	Std. Dev.	Mean	Std. Dev.
Estimated displacement: Total no. of White families	151	283	174	313
Estimated displacement: Total no. of non-White families	195	398	207	444
Estimated clearance: Total no. of substandard units	340	632	371	704
Estimated clearance: Total no. of standard units	90	230	107	261
Project land total acres	5.3	10	4.9	11
Project land acres for residential use	2.7	5	2.3	4.9

Notes: 913 projects had non-missing data on planned displacement for White families. The sample outside of the South contains 677 projects.

Table A2: Effect of Black Migration on Additional Urban Renewal Characteristics

	Project Land Acreage:						
	Total	% of City Area	Residential	Commercial	Industrial	Streets	Public
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
OLS							
Actual Black Migration (10 Perc.)	1.708***	0.00630**	0.593***	0.200***	0.364***	0.456***	0.156***
	(0.283)	(0.00260)	(0.0953)	(0.0272)	(0.0870)	(0.0710)	(0.0440)
Observations	675	668	675	675	675	675	675
Reduced Form							
Predicted Black Migration (10 Perc.)	0.910***	0.00647***	0.335***	0.108***	0.168**	0.224***	0.167**
	(0.253)	(0.00201)	(0.0870)	(0.0333)	(0.0677)	(0.0700)	(0.0687)
Observations	675	668	675	675	675	675	675
2SLS							
Actual Black Migration (10 Perc.)	3.592***	0.0255**	1.322***	0.428***	0.662**	0.883***	0.660
	(1.204)	(0.0115)	(0.382)	(0.149)	(0.337)	(0.325)	(0.402)
Observations	675	668	675	675	675	675	675

Notes: Reduced form estimates are the effect of predicted Black migration on urban renewal outcomes. The instrument is the percentile of predicted Black population increase in 1940-1950 as a share of city population in 1940. Specifically, the instrument is defined as the interaction between pre-1940 Black southern migration patterns and post-1940 outflows of migrants as predicted by southern economic factors alone. Coefficients should be interpreted as the effect of a 10-percentile point increase in predicted Black migration. The 2SLS estimates are the effect of a 10-percentile point increase in actual Black population on urban renewal outcomes. All specifications include a vector of covariates from 1940, including the share of the receiving city population comprised of 1935-1940 Black migrants, the share of the labor force in manufacturing, log average income, mean years of schooling, and share of women who are married. We also include state fixed effects. Standard errors are clustered at the state level and estimated via bootstrap. *** $p<0.01$, ** $p<0.05$, * $p<0.1$.

Table A3: Effects of Black Migration on Housing Characteristics

	Dependent variables (Change from 1950 to 1960):		
	Total Dwelling Units	Perc. in Single-Unit Detached Structures	Perc. with Hot Running Water and Private Bath
	(1)	(2)	(3)
OLS			
Actual Black Migration (10 Perc.)	1360.1**	0.614*	-0.643***
	(614.5)	(0.324)	(0.215)
Observations	310	309	310
Reduced Form			
Predicted Black Migration (10 Perc.)	-127.7	-0.277	-0.123
	(504.5)	(0.250)	(0.124)
Observations	310	309	310
2SLS			
Actual Black Migration (10 Perc.)	-546.5	-1.190	-0.526
	(2754.3)	(1.551)	(0.578)
Observations	310	309	310

Notes: Outcome variables come from the 1944-1977 County and City Data Book. Reduced form estimates are the effect of predicted Black migration on urban renewal outcomes. The instrument is the percentile of predicted Black population increase in 1940-1950 as a share of city population in 1940. Specifically, the instrument is defined as the interaction between pre-1940 Black southern migration patterns and post-1940 outflows of migrants as predicted by southern economic factors alone. Coefficients should be interpreted as the effect of a 10-percentile point increase in predicted Black migration. The 2SLS estimates are the effect of a 10-percentile point increase in actual Black population on urban renewal outcomes. All specifications include a vector of covariates from 1940, including the share of the receiving city population comprised of 1935-1940 Black migrants, the share of the labor force in manufacturing, log average income, mean years of schooling, and share of women who are married. We also include state fixed effects. Standard errors are clustered at the state level and estimated via bootstrap. *** $p<0.01$, ** $p<0.05$, * $p<0.1$.

Table A4: Effects of Black Migration on UR Projects Across Decades

	Number of new projects during:		
	1955-1959	1960-1969	1970-1974
	(1)	(2)	(3)
Reduced Form			
Predicted Black Migration, 1940-1950 (10 Perc.)	0.114***		
	(0.0297)		
Predicted Black Migration, 1950-1960 (10 Perc.)		0.291***	
		(0.0489)	
Predicted Black Migration, 1960-1970 (10 Perc.)			0.0745***
			(0.0191)
Observations	674	674	674

Notes: The instrument is the percentile of predicted Black population increase in the specified time period as a share of city population in 1940. Specifically, the instrument is defined as the interaction between 1935-1940 Black southern migration patterns and post-1940 outflows of migrants as predicted by southern economic factors alone. Predicted Black migration from 1940-1950, 1950-1960, and 1960-1970 are constructed using southern economic conditions in 1940, 1950, and 1960, respectively. Coefficients should be interpreted as the effect of a 10-percentile point increase in predicted Black migration. All specifications include a vector of covariates from 1940, including the share of the receiving city population comprised of 1935-1940 Black migrants, the share of the labor force in manufacturing, log average income, mean years of schooling, and share of women who are married. We also include state fixed effects. Standard errors are clustered at the state level and estimated via bootstrap. *** $p<0.01$, ** $p<0.05$, * $p<0.1$.

Table A5: Relationship between Southern White Migration and Urban Renewal

		Displaced Families as Share of Total HHs:			Dwelling Units	Project Land
	Any UR Project	Total	White	Non-White	Cleared	Acreage
	(1)	(2)	(3)	(4)	(5)	(6)
White Migration (10 Perc.)	-0.00627	-0.0138	-0.0240	0.0102	-28.71	-0.236
	(0.0104)	(0.0424)	(0.0252)	(0.0198)	(23.21)	(0.147)
Observations	674	674	674	674	674	674

Notes: Explanatory variable of interest is actual White migration from the South into cities in the north and west in 1940-1950. All specifications include the percentile of the share of actual Black migration from 1940-1950 and covariates from 1940, including the share of the receiving city population comprised of 1935-1940 Black migrants, the share of the labor force in manufacturing, log average income, mean years of schooling, and share of women who are married. We also include state fixed effects. Standard errors are clustered at the state level and estimated via bootstrap. *** p<0.01, ** p<0.05, * p<0.1.

Table A6: Effect of Black Migration, Accounting for European Mass Migration

	Any UR Project		Displaced Families as Share of Total HHs: White		Displaced Families as Share of Total HHs: Non-White		Dwelling Units Cleared		Project Land Acreage	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Reduced Form										
Predicted Black Migration (10 Perc.)	0.0284***	0.0284***	0.0403***	0.0390**	0.0438**	0.0416*	93.75***	90.26***	0.928***	0.911***
	(0.00843)	(0.00823)	(0.0156)	(0.0154)	(0.0222)	(0.0219)	(35.41)	(34.38)	(0.256)	(0.254)
Pred. European Migration (10 Perc.)		0.000437		0.0210		0.0365		57.76		0.290
		(0.00907)		(0.0471)		(0.0246)		(68.77)		(0.476)
Observations	667	667	667	667	667	667	667	667	667	667
2SLS										
Actual Black Migration (10 Perc.)	0.111***	0.112***	0.158*	0.154	0.171**	0.164**	367.1***	356.8***	3.635***	3.601***
	(0.0271)	(0.0264)	(0.0931)	(0.0946)	(0.0743)	(0.0744)	(115.1)	(112.9)	(1.229)	(1.194)
Pred. European Migration (10 Perc.)		-0.00411		0.0148		0.0298		43.30		0.144
		(0.0105)		(0.0485)		(0.0248)		(58.39)		(0.422)
Observations	667	667	667	667	667	667	667	667	667	667

Notes: Predicted European Migration is a county-level instrument that combines variation generated by the timing of railway construction and the timing of immigrant booms. It is the decile of average predicted European immigrant share from 1860–1920. Predicted Black migration is the same instrument as before, defined as the interaction between pre-1940 Black southern migration patterns and post-1940 outflows of migrants as predicted by southern economic factors alone. All specifications include a vector of covariates from 1940, including the share of the receiving city population comprised of 1935-1940 Black migrants, the share of the labor force in manufacturing, log average income, mean years of schooling, and share of women who are married. We also include state fixed effects. Standard errors are clustered at the state level and estimated via bootstrap. *** $p<0.01$, ** $p<0.05$, * $p<0.1$.

Table A7: Rotemberg Weights Summary

Panel A: Negative and positive weights

	Sum	Mean	Share
Negative	-0.740	-0.001	0.298
Positive	1.740	0.003	0.702

Panel B: Correlations of Predicted Migration Aggregates

	α_k	g_k	β_k	F_k	Var(z_k)
α_k	1				
g_k	0.905	1			
β_k	-0.012	-0.017	1		
F_k	-0.028	-0.038	-0.017	1	
Var(z_k)	-0.054	-0.100	-0.016	0.092	1

Notes: This table summarizes statistics about Rotemberg weights, where *k* indexes counties, following Goldsmith-Pinkham et al. (2020). Panel A reports share of positive and negative Rotemberg weights. Panel B reports correlation between the weights (α_k), predicted migration inflows into cities (g_k), the just identified coefficient estimates (β_k), the first stage F-statistic of the historical settlement patterns of Black southern migrants (F_k), and the variation in the shares of Black southern migrants ($Var(z_k)$) residing in the north in 1940.