

# Racial Representation, Segregation, and Sorting

Jiangnan Zeng\*

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**Abstract:** The black population in cities has declined in recent decades. Whether this is due to more appealing amenities in the suburbs or the rising cost of living in cities, politics might have a role in reversing this trend. This paper investigates the impact of electing a black mayor on the location choices of black and white individuals. Utilizing data from closely contested mayoral elections and a self-constructed migration dataset derived from North Carolina voter registration records, I establish causal links between the presence of a black mayor and individual location decisions within and across cities. The analysis reveals that the presence of a black mayor significantly increases the net population in both majority-black and white neighborhoods in North Carolina. This effect is more prominent in majority-black neighborhoods, which see a significant rise in the black population and a slight uptick in the white population. These findings are corroborated by an examination of data from 120 major U.S. cities at the tract level. In majority-black neighborhoods, the net population increase is attributed to reduced out-migration of both Black and white residents, coupled with an influx of Black individuals from outside the city. In predominantly white areas, out-migration decreases for residents of both racial backgrounds, accompanied by a notable increase in white newcomers. The net effect of these changes is an unintentional increase in racial segregation that arises from the increased concentration of black individuals in predominantly black neighborhoods, hinting at potential place-based investment or resource reallocation under the leadership of a black mayor.

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\*Department of Economics, Dietrich School of Arts and Sciences, University of Pittsburgh, 4901 Wesley W. Posvar Hall, 230 South Bouquet Street, Pittsburgh, PA, 15260, USA. jiz198@pitt.edu

# 1 Introduction

Though the foundations of legal racial segregation were dismantled in the last century, de facto residential segregation continues to characterize urban life in America with important implications for equal access to economic opportunity (Chyn, Haggag, and Stuart, 2022). Segregation exacerbates the rates of black poverty in metropolitan areas, widening the existing income disparities between black and white communities (Ananat, 2011). The persistent patterns of residential segregation are evidenced by the evolution of demographic shifts in major American cities. The historical migration of Black individuals into the central neighborhoods of major U.S. cities occurred concurrently with a suburbanization trend among White households (Boustan, 2010). However, over the past 50 years, the proportion of Black residents in the 40 most populous central cities has declined from 40% to 24% (Bartik and Mast, 2022). This trend has become more pronounced since the year 2000, with a notable decrease of 300,000 Black individuals in central cities of the 100 largest metropolitan areas between 2000 and 2010. Major cities that were once main hubs during the Great Migration — including Detroit, Chicago, and New York, as well as Atlanta, Dallas, and Los Angeles — have all seen a contraction in their black demographics (Frey, 2018). Interestingly, the decline in the urban Black population mostly occurred in census tracts without gentrification. The Black households that moved to the suburbs tended to have higher incomes compared to those who remained in the city (Bartik and Mast, 2022), while those who opted to remain, predominantly the impoverished and the elderly, faced further degradation of their neighborhoods.

Despite these demographic shifts, the past decades have seen a marked increase in the number of minority elected officials at all levels of government in the United States. The Voting Rights Act (VRA) of 1965 and its later amendments have returned voting rights to African Americans and promoted greater representation of minorities in elected office (Grofman, Handley, and Niemi, 1992). Today, more than one-third of America’s top 100 cities are governed by African Americans. However, social and economic racial gaps remain wide. Historically black neighborhoods in urban areas suffered from a loss of vitality, leading to a sense of hopelessness and diminishing prospects for improvement. The impact of electing minority officials on minority neighborhoods, and the well-being of their non-white constituents remains an open question. Does having a minority leader

reduce racial gaps through fairer public policies? Researchers have considered the impact of increasingly diverse representation on local government spending patterns with mixed results. (Beach and Jones, 2017; Hopkins and McCabe, 2012) with mixed results. Other studies focus on employment (Sylvera, 2021; Nye, Rainer, and Stratmann, 2015) the resource allocation across neighborhoods by looking at housing prices, the number of businesses, and self-employment across minority and non-minority communities (Beach et al., 2018). This paper intends to answer this question through a direct measure of policy outcomes—individual location choice decisions. I explore how changes in minority representation impact individual migration choices (both within and across municipalities) of different racial groups, overall segregation patterns, and the potential mechanisms behind it. Specifically, I investigate how the election of a black mayor influences racial sorting and amenity levels in various neighborhoods. Leveraging the North Carolina voter registration dataset, I have constructed a migration database that allows me to observe individual preferences for preferences concerning neighborhood and city selections. When combined with neighborhood-level demographic data, it offers a more comprehensive assessment of the impact of black mayors on racial dynamics and neighborhood quality.

To estimate the causal effect of black mayors on different racial groups’ migration decisions, I combine difference-in-difference design with close election wins for Black mayors in North Carolina cities and 120 major U.S. cities. A close election result between a white and non-white candidate serves as a natural experiment for my study. In North Carolina cities, electing black mayors has led to an increase in the net population across both majority black and non-majority black neighborhoods, with a notable surge in majority black and white neighborhoods. Specifically, black mayors have attracted approximately equal proportions of black and white residents to predominantly black neighborhoods— both groups grew by around 4%. In neighborhoods where the black population is less than 30%, there’s a significant influx of white residents (2%). Additionally, When expanding the analysis to encompass 120 major U.S. cities, the trends observed in North Carolina largely mirror those in these cities.

Nonetheless, merely examining the shifts in population distribution among racial groups in various neighborhoods doesn’t furnish the full context. A deeper dive into migration decomposition reveals the underlying dynamics. Further analysis shows that, on average, the net population

growth is mainly due to a reduction in outflows. The rise in population in predominantly black neighborhoods primarily stems from a drop in the departure rates of both black (7%) and white (4%) residents. In mixed neighborhoods, the increase is mainly attributed to a 1.7% decrease in black residents' outflows. In white-majority neighborhoods, there's an evident increase of 1.4% in white residents' inflows and a concurrent decrease in both black and white residents' outflows. These results may challenge the gentrification hypothesis. Based on revealed residential preferences, having a black mayor seems to benefit existing residents, with majority black neighborhoods experiencing the most pronounced positive effects.

The considerable increase of black residents in majority black neighborhoods and white residents in white neighborhoods raises concerns about heightened segregation. This hypothesis is further substantiated through the examination of changes in racial composition and segregation patterns in both North Carolina cities and 120 major U.S. I find that the election of a black mayor boosts the black population in the city and amplifies its segregation. These outcomes align with the theoretical and empirical discoveries presented in the studies of [Bayer, Fang, and McMillan \(2014\)](#) and [Banzhaf and Walsh \(2013\)](#). These studies propose that, when sorting is driven by tastes for the exogenous public good and by demographic tastes, place-based interventions aimed at enhancing public goods in high-minority communities that are initially of lower quality can attract richer minorities moving back, and inadvertently lead to an unintentional increase in group segregation. After having a black mayor, the city experiences a reverse in black outflows and amplified segregation. These patterns suggest the potential implementation of place-based intervention or resource redistribution under the leadership of a black mayor. Later in the mechanism section, I first show that having a black mayor improves the amenity conditions in majority black neighborhoods using the entry of polluted facilities across neighborhoods as a neighborhood-level amenity measure. Secondly, the presence of a black mayor redirects public attention towards minority neighborhoods, which in turn brings their issues into more prominent public discussions. Through my data collection of local newspaper coverage in major U.S. cities, I find that minority neighborhoods receive significantly more frequent coverage in local newspapers following the election of a black mayor. The above results suggest that minority representations improve the minority neighborhood's situation and make the city more attractive to all groups.

This paper contributes to works on minority representations. By examining the reconstruction era, [Logan \(2020\)](#) finds that politician’s race has substantial effects on public finance and personal outcomes, effects that go beyond what can be attributed to electoral redistribution preferences. Additionally, [Cascio and Washington \(2014\)](#) highlighted the pivotal role of the 1965 Voting Rights Act in improving the economic conditions of black Americans after the 1950s. If we turn to research from more recent years, papers that evaluate black mayors’ impacts mainly focus on employment outcomes and produce mixed results. [Hopkins and McCabe \(2012\)](#) finds no difference in employment and fiscal policies between black mayors and their counterparts. [Sakong \(2021\)](#) looks at all types of local elections, and finds that minority representation widens racial gaps in employment in private sectors. However, [Nye, Rainer, and Stratmann \(2015\)](#) argues that having a black mayor leads to a rise in black employment and labor force participation by focusing on 60 large U.S. cities. [Sylvera \(2021\)](#) find that black mayors reduce black–White self-employment gap. The above papers differ in methods and samples, while all used aggregated level data and focus on some large cities in the U.S.. How mayors affect employment in different sectors may be ambiguous and differ a lot. However, mayors can affect resource allocations across different neighborhoods by simply investing in local amenities, which can directly change individuals’ lives. I propose a new measure to evaluate black mayor’s influence—individual location choice. The new measure provides richer information for the foot voting behavior across different race/ethnic groups, directly reflecting one’s preference’s change from having black mayors. In addition, I evaluate black mayors’ impacts on both North Carolina and the top 160 MSA major cities in the U.S., which is not only a larger sample, but a more representative one. The results of this paper corroborate to [Beach et al. \(2018\)](#)’s findings. They find that nonwhite candidates generate differential gains in housing prices in majority nonwhite neighborhoods. My paper provides potential explanations for theirs by showing fewer black people are leaving minority neighborhoods, and are receiving people moving in outside of the city. This paper also adds to a small but growing literature on black flights and black suburbanization ([Bartik and Mast, 2022](#); [Baum-Snow and Hartley, 2020](#)). My paper provide suggestive evidence indicating that minority representation have the potential to mitigate the trend of black suburbanization by enhancing the attractiveness of minority neighborhoods in urban areas.

This research narrows the gap between theoretical and empirical works in racial inequality and

segregation by providing rich empirical evidence for both theories papers in racial sorting and segregation (Banzhaf and Walsh, 2013) and empirical papers using aggregated level data (Bayer, Fang, and McMillan, 2014). Some suggest that increased racial inequality leads to higher levels of segregation, and segregation exacerbates racial inequality (Cutler and Glaeser, 1997). Banzhaf and Walsh (2013) argues that place-based interventions that improve public goods in low-quality, high-minority communities may increase group segregation, as more affluent minority households are more likely to migrate into the community following the improvement. Using education level as a proxy for minority groups' class and tract-level minority group ratio, Bayer, Fang, and McMillan (2014) also provides consistent empirical evidence for the emergence of middle-class black neighborhoods that can increase segregation in American cities. This paper's findings align with the arguments presented in those studies. The redistribution of more resources to majority-black neighborhoods by black mayors encourages higher retention of the black population in these areas, inadvertently escalating segregation.

Furthermore, this paper contributes to the literature on Place-based investment/redistribution (Gaubert, Kline, and Yagan, 2021; Kline and Moretti, 2014; Neumark and Simpson, 2015). This paper presents empirical data suggesting that place-based redistribution led by black mayors positively impacts residents of minority neighborhoods, a trend reflected in their residential choices, marked by a decrease in the number of black families moving away. Place-based policies necessitate initiation and enforcement by local governments. This study's findings underscore a black mayor's role in redirecting resources, including amenities and media resources, toward minority neighborhoods. This not only rejuvenates majority-black neighborhoods, keeping both black and white residents staying there, but also positively affects the surrounding areas, potentially fostering diverse neighborhoods. This hints at a potential spillover effect in progress, signaling broader beneficial impacts stemming from such redistributive policies.

The structure of the remaining parts of this paper is organized as follows. Section 2 introduces the institutional backdrop defining the extent of a mayor's power in the U.S. The third section delineates the data utilized and the methodologies adopted in this study. In Section 4, we present the primary findings, focusing on North Carolina and other principal cities in the U.S. Following this, Section 5 explores potential alternative mechanisms and discusses prospective implications.

Section 6 is dedicated to verifying the robustness of our findings through various checks. The final section, Section 7, offers a conclusion.

## 2 Institutional background

The power of a mayor in U.S. cities can vary significantly depending on a variety of factors including the specific governing structure of the city, the particular powers vested in the mayor by the city's charter, and the political dynamics of the city at any given time. Generally, there are two forms of municipal government: Mayor-Council and Council-Manager. Under these two forms, the powers of a mayor can be categorized into two primary types: strong mayors and weak mayors.

Specifically, the mayor-council form of government where mayor is elected as an executive leader, separate from the legislative body—city council. This system can be further divided into two categories: the strong mayor-council system and the weak mayor-council system. In the strong Mayor-Council system, The mayor has a high degree of control over the administrative and operational aspects of the city, including budgeting and financial management. she has the authority to veto legislation passed by the city council, and the sole power to appoint individuals to various city government positions, including department heads, without needing approval from the city council. Most major American cities use the strong-mayor form of the mayor–council system (New York, Houston, Salt Lake City, Minneapolis, Pittsburgh, etc.)([Lineberry, Edwards, and Wattenberg, 1983](#); [Svara, 2003](#)). Under the structure of weak Mayor-Council system, the mayor's powers are more limited, with the city council holding more legislative and administrative authority. In North Carolina, the mayor–council form remains the principal form of local government (298/533). It predominates among cities with populations of less than 2,500 ([Upshaw, 2014](#)).

Unlike the Mayor-Council system, cities operating under the Council-Manager framework assign the mayor to a role equivalent to other council members, generally devoid of special powers or privileges. This individual frequently assumes ceremonial duties, embodying a symbolic figurehead rather than a governing authority with executive responsibilities, which are instead delegated to a city manager chosen by the city council. In North Carolina, the majority of cities harboring over 2,500 residents have adopted this governance plan ([Upshaw, 2014](#)).As of 2001, the council-manager

arrangement was prevalent across 3,302 American cities with a population exceeding 2,500, and 371 counties have embraced this system. It especially garners favor in municipalities housing over 10,000 inhabitants, notably in regions spanning the Southeast and the Pacific coast. Within this governance model, Phoenix, Arizona stands as the most populous city in the nation maintaining a council-manager system.

Since the onset of the 21st century, it is evident that variations of the mayor-council government system have emerged, straying from the strictly defined strong and weak models. There exist hybrid structures that incorporate features from both council-manager and mayor-council frameworks, blending elements to suit specific local governance needs. In the sample of this analysis, 80% of the cities are operating under the Mayor-Council form, where mayors has more powers in executive decisions, council voting influence, and the appointment of individuals to key positions.

## **3 Methods and Data**

### **3.1 Data**

#### **3.1.1 Migration data**

I construct the individual migration records based on the Voter Registration data in North Carolina. The voter registration data is housed by the North Carolina State Board of Elections and provides information for registered or formerly registered voters in North Carolina from 2005 to 2023.

The data includes information about each voter’s voter registration status (e.g., active, removed) and reason for status. It further outlines voter demographics, including race, gender, and age, as well as party affiliation and residential address spanning from 2005 to the current date. Each voter is allocated a unique ID that facilitates tracking individual voters across various locations and over different years within the state. Leveraging the extensive geographic data attached to each voter, I transform every home address into corresponding census tract and block group categories utilizing Geographic Information System (GIS) analyses. This process enables the mapping of each voter’s residence to different neighborhoods delineated by either census tracts or block groups.

The NC voter registration data is obtained from Voter registration snapshot files, which provide



a point-in-time snapshot of information for active and inactive voters, as well as removed voters going back for a period of ten years. Maintaining the accuracy and up-to-date status of voter registration data is a continuous process. The snapshots are taken at multiple points in time, at least twice per year (once on Election Day and once on the first day of each year), guaranteeing the voter's address updates per year.

I construct a migration record for each valid voter using the North Carolina Voter Registration data from 2009 to 2020. To do that, I construct two dummy variables termed “move-in” and “move-out” based on their yearly address changes. Given that every address has been geocoded and situated within specific block groups, the “move-in” variable is set to 1 in year  $t$  if voter  $i$ 's block group is not the same as that in year  $t-1$ . Concurrently, the “move-out” variable is activated, switching to 1, representing the voter's block group in year  $t-1$ . In subsequent analysis, I aggregate the two dummy variables at the block group level. The net population shift within each block group at a specific time ( $t$ ) is computed by subtracting the move-outs from the move-ins within that block group at that same time ( $t$ ). The primary migration metrics I focus on were movements at the block group level, which includes population inflows, outflows, and the overall population net change, with specific segments of the analysis dedicated to the broader voter base, as well as the white and black voter categories.

Given the legal age for voter registration in North Carolina is 18, individuals appearing in the dataset at ages 18 or 19 are predominantly viewed as new registrants rather than newcomers to the city. On the other hand, those above the age of 75 who disappear from the dataset are likely due to passing away, rather than moving away. My analysis is narrowed down to a group of voters who have registration records for more than two years among the total 12 years, and are above 18. I've removed potential new registrants by excluding initial registrations from those younger than 20 and potential deceased voters by omitting the final registrations of those older than 75. In my sample, 25% of the voters have consistently been registered for 12 years, and a significant 75% have maintained their registration for more than two years. In the Robustness check, I applied stricter criteria by excluding all initial and final registration records. The findings remain consistent.

How representative can the voter registration data be? I conduct a comparative analysis between the demographic details sourced from voter registration records and the 2019-2020 Census data

specific to North Carolina at the tract level. To harmonize with the age criteria applied in the voter registration data, I limit the Census data observations to individuals falling within the 20 to 75 age bracket, and calculate tract level total population, population ratio for different racial groups, and gender ratio. On average, within each tract, the voter registration data displays a smaller percentage of American Indian/Alaska Native and Asian individuals. Conversely, there is a greater representation of both black and white populations, along with a higher ratio of females compared to males.

Table 1 presents the summary statistics derived from the North Carolina voter registration data, detailing block-group level move-ins and move-outs throughout the 2009-2020 sample period. On average, 75% of all move-ins within a block group originate from locations outside the respective city, with 64% representing arrivals from beyond the county borders. Conversely, of all move-outs from a block group, 69% relocate outside the city limits while 54% venture out of the county. Figure 1 provides a comparison between the Internal Revenue Service (IRS) across county migration statistics and the NC voter across county migration statistics, encompassing data from counties in my North Carolina sample spanning the years 2012 to 2019. The IRS Migration data are based on year-to-year address changes reported on individual income tax returns filed with the IRS. The inflow and outflow statistics at the county level, derived from my migration data, exhibit a strong correlation with the IRS migration figures.

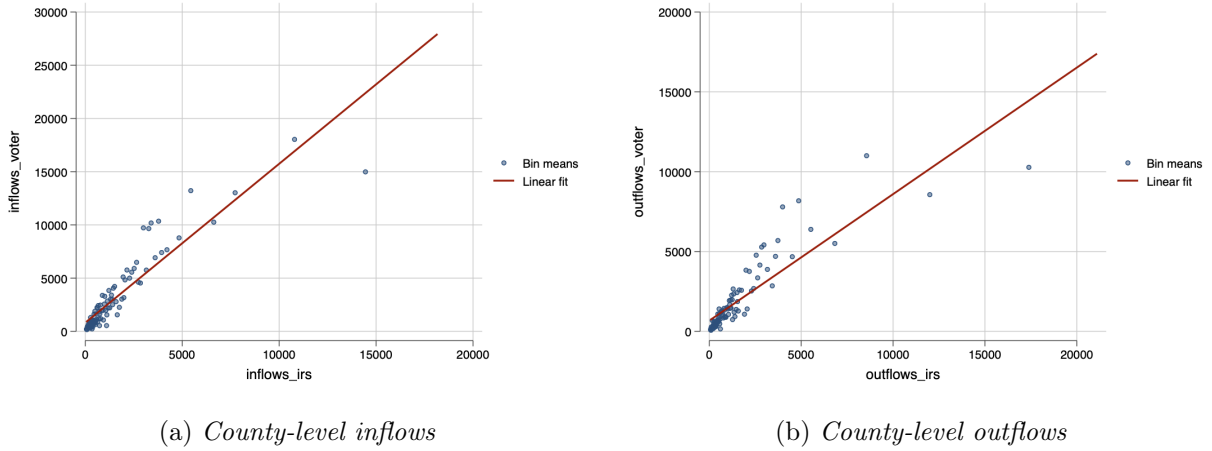
Table 1: *Summary Statistics*

<b>Panel A: Summary statistics of inflows and outflows in NC migration data</b>						
Variable	Obs	Mean	Std. Dev.	Min	Max	percent of total inflows/outflows
blockgroup inflows	89,375	58.814	79.16	0	2355	1.000
city inflows	89,375	44.499	64.17	0	2329	0.757
county inflows	89,375	37.902	56.18	0	2323	0.644
blockgroup outflows	81,688	45.079	53.10	0	3112	1.000
city outflows	81,688	30.940	38.90	0	1990	0.686
county outflows	81,688	24.378	32.20	0	1869	0.541

<b>Panel B: Tract-level mean comparison</b>			
Variable	NC census data	NC voter registration data	U.S. major cities census data
Total population	2825.919	2012.417	4193.500
Black share	0.229	0.241	0.258
White share	0.662	0.698	0.540
Others	0.130	0.110	0.201
Female/Male	1.072	1.221	1.080

Figure 1: *across county migration data Comparison—voter data v.s. IRS*



### 3.1.2 Elections Data

The mayoral election data for North Carolina are sourced from official records available on the North Carolina State Board of Elections website. This data encompasses three main categories: election returns, candidate filings, and voter registration details.

The election returns data are critical in pinpointing the specific instances and locations of closely contested city council elections. These records provide detailed information on each candidate, including their names, the offices they were vying for, and their respective vote tallies for the election. Our focus has been on extracting data pertinent to mayoral candidates for the period spanning from 2009 to 2019.

The candidate-level data does not include any personal data on the candidates, namely: race, gender, or partisan affiliation. Thus, I cannot immediately use the election data to identify close elections *between white and nonwhite candidates*. To address this, I rely on voter registration files to supplement the missing details. The process involves matching mayoral candidates derived from election returns with voter files using information including candidate name and city. However, this strategy has a limitation, as candidates bearing common names might correspond to several individuals in the voter registration files within the specified city. To mitigate this, I introduce a third resource, the candidate filings data, which chronicles all individuals running for public office in North Carolina annually, including their residential addresses. Initially, I align candidates using name and city with the candidate filing data to ascertain their addresses. Subsequently, I employ the zipcode for pairing with the election returns, reducing the likelihood of repeated matches. It is worth noting that I still fail to match some candidates; this can happen, for instance, as a result of discrepancies in how candidates' names are spelled in election return data vs. the voter files (e.g., “Dan Jones” vs. “D. Brady Jones” or “Daniel B. Jones”). To navigate this, I manually gather the demographic details of the candidates by exploring a variety of campaign websites <sup>1</sup> as well as local government platforms. In instances where a mayoral election features more than two individuals vying for the role, I narrow my focus to the duo securing the highest vote tallies in the final round, thereby spotlighting the “marginal” contenders. Table 2 Panel A presents summary statistics of

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<sup>1</sup><https://www.ourcampaigns.com>; <https://ballotpedia.org>

these candidates' characteristics.

### 3.1.3 U.S. major cities sample

I gathered election data pertinent to the mayoral level for 120 major cities situated in the top 120 Metropolitan Statistical Areas (MSAs). This data is sourced from <https://www.ourcampaigns.com> and <https://ballotpedia.org>, a platform housing election outcomes along with comprehensive information on all contenders, encompassing their names, genders, and political affiliations. While the racial or ethnic backgrounds of several candidates are provided, there are instances where this information is absent. To bridge this gap, I undertook a manual data collection process, discerning the racial backgrounds through photographs available on local governmental websites and coverage in local newspapers. Table 2 Panel B presents summary statistics of these candidates' characteristics.

The migration results for 120 major U.S. cities are based on the annual population statistics at the tract level for various racial groups spanning from 2006 to 2019. This data is derived from the U.S. Census Tract Population Data<sup>2</sup>. In order to maintain consistency with the North Carolina migration data, the sample is confined to individuals within the age range of 20 to 75 years. Table 1 Panel B summarizes the tract-level demographic information.

Table 2: *Summary Statistics of Mayoral election candidates*

<b>Panel A: North Carolina mayor candidates characteristics</b>			
	Percent		Percent
Black share	15.5%	Democratican	28.4%
White share	82.6%	Republican	16.8%
Others	1.9%	Non Partisan	44.5%
Female/Male	33.2%	Unaffiliated	10.1%
<b>Panel B: U.S. major cities mayor candidates characteristics</b>			
	Percent		Percent
Black share	21.0%	Democratican	54.5%
White share	72.2%	Republican	24.2%
Others	6.8%	Non Partisan	20.8%
Female/Male	23.6%	Unaffiliated	0.6%

<sup>2</sup><https://seer.cancer.gov/censustract-pops/>

### 3.1.4 Analysis data

The resulting elections dataset of North Carolina includes the set of mayoral elections from 2009 to 2019, where one of the two marginal candidates (last winner and first loser) was white and the other black. I identify 216 unique contests in 122 unique municipalities that fit this description. Amongst “close” contests (a margin of victory of less than ten percentage points), we observe 55 unique contests in 48 unique municipalities. Merging the elections data with the migration data, we lose some municipalities. That results in 108 total municipalities and 180 total elections, and 39 municipalities and 46 elections in contests decided by ten percentage points or less. For the 120 major cities in the U.S., the ultimate elections dataset details mayoral elections from 1999 to 2019, specifying instances where one of the two marginal candidates (either the ultimate winner or the primary runner-up) was white and the other black. This framework is applicable to 177 distinctive elections across 70 individual municipalities. Within the subset of losecontests, delineated as those with a victory margin less than 10 percentage points, we noted 44 individual elections spread over 32 singular municipalities. We didn’t lose any municipality after Merging the elections data with the census tract data.

In merging election data with migration, we create a panel around each election. Specifically, for each election, we include four years of migration data before the new mayors take office and the four years after; however, due to ambiguity in when mayors take office and due to shifts in policy in elections years ([McCrary, 2002](#); [Baicker and Jacobson, 2007](#)), we omit migration data from election years. For migration data, I aggregate the individual location choice at the tract level and categorize tracts into three types: majority-black tracts where the proportion of black residents exceeds that of any other racial group, diverse tracts where the black population accounts for 30% to 50% of the total, and white tracts in which all racial groups except for whites constitute less than 30% of the population. I employ the demographic shares from the 2010 census tract as the baseline for neighborhood categorization. The main results are presented at the tract level, showing the racial sorting dynamics prevalent in each of the three neighborhood types outlined above.

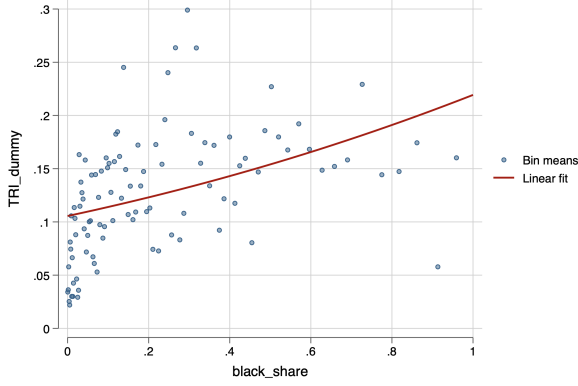
### 3.1.5 Other datasets

In the mechanisms section, I use the Toxics Release Inventory (TRI) numbers and public school enrollment data in North Carolina as indicators of neighborhood amenity levels. Additionally, I gather data from local newspapers and compile names of neighborhoods to assess media attention directed towards minority communities.

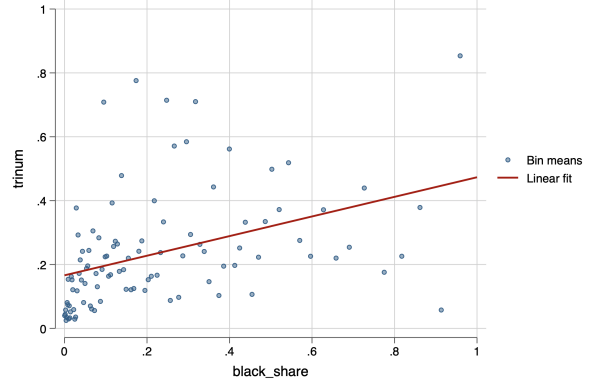
The Toxics Release Inventory (TRI) is a resource that monitors the management of specific toxic chemicals that could potentially harm human health and the environment. Annually, facilities across various U.S. industry sectors must report the amounts of these chemicals either released into the environment or managed through means like recycling, energy recovery, or treatment. This data is then compiled into the TRI. Typically, facilities reporting to TRI are large establishments in sectors such as manufacturing, metal mining, electric power generation, chemical production, and hazardous waste treatment. This data has been widely used as measures of pollution exposure for individuals and areas [Banzhaf and Walsh \(2008\)](#); [Wang et al. \(2021\)](#). [Banzhaf and Walsh \(2008\)](#) presents evidence suggesting that TRI facilities are linked to a deterioration in the socio-economic status of the community over time. For this research, I sourced the TRI data from the United States Environment Protection Agency’s website. This data provides details such as each inventory’s name, its geographical coordinates (longitude and latitude), and the total amount released. I then created two metrics to measure the environmental quality of individual neighborhoods. The first is a binary variable that turns to 1 if a given block group has any Toxics Release Inventories situated within it. As of 2015, 13% of the block groups reported the presence of TRI facilities in North Carolina. The second metric denotes the total count of Toxics Release Inventories within each block group. [Figure 2](#) visualizes the spread of TRI in relation to the proportion of Black residents in neighborhoods. The representation indicates a discernible positive association between the presence of TRI and the percentage of Black residents in a neighborhood (0.105 for  $TRI_{dummy}$  and 0.3 for  $TRI_{number}$ ).

The data on public school enrollment is sourced from The Education Data Portal database. My sample encompasses all K12 public schools listed in the Common Core of Data, spanning from 2004 to 2019. The dataset consists of approximately 2,600 schools. Among these, 30% qualify as majority-black schools based on the proportion of black student enrollment, while 14% are situated

Figure 2: *Toxic Release Inventories' distribution*



(a) *TRI dummy distribution*



(b) *TRI numbers distribution*

in predominantly black neighborhoods. Table A.1 provides a detailed overview of the demographic breakdown of school enrollments.

For the analysis of media coverage, I focus on major U.S. cities due to the limited availability of digitized newspaper archives for North Carolina cities. The digital archives of local newspapers were sourced from two platforms: newspaper.com and newsbank.com. Using a combined search across these databases, I retrieved pages that mentioned both the name of a given neighborhood and its corresponding city, focusing on articles published between 2000 and 2019. The names of these neighborhoods were sourced from neighborhood boundary maps that I manually collected from each city's official website. To determine the demographics of each neighborhood and specifically identify those that are predominantly black, I overlaid the neighborhood boundaries with census block maps. Using this approach, I was able to compute the proportion of black residents within each neighborhood by considering the ratio of neighborhood areas to the areas of the census blocks, supplemented with block-level data on racial demographics. Table A.2 provides a detailed breakdown of neighborhood demographics and media coverage for the subset of my data associated with close election cities.



## 3.2 Methods

### 3.2.1 Baseline difference-difference specification

This paper adopts a difference-in-differences (DiD) methodology, paired with the intuition of a regression discontinuity approach. I do not use a more typical regression discontinuity design due to the relatively low number of municipalities and elections in our final dataset. The canonical close-elections regression discontinuity design is grounded in exploiting post-election variations, aligning data to candidates' victory margins both below and above the winning threshold; this strategy ideally utilizes a substantial quantity of data points flanking the cutoff to fit the lines accurately and pinpoint the discontinuity precisely at the cutoff. However, given our smaller number of observations around the cut-off, a difference-in-differences approach, comparing averages before and after an event, imposes less structure and as such is a better fit for a scenario with a smaller number of observations on either side of the cutoff. While identification *at the cutoff* is lost, the difference-in-differences design instead aims to account for unobserved confounders via fixed effects.

As such, noting again that I construct a panel around each relevant election event, I take advantage of observing both pre- and post- election observations of each agency. The difference-in-differences setup therefore compares changes in migration outcomes before vs. after an election between a white and non-white candidate in municipalities where the non-white candidate won (relative to cities where the non-white candidate did not). The simplest representation of our estimating equation is:

$$\text{Migration Outcome}_{bct} = \beta_1(\text{Black Win}_c \times \text{Post}_t) + \beta_2 \text{Post}_t + \theta_c + \text{neigh}_b + \tau_t \quad (1)$$

In the equation,  $b$  indexes neighborhood,  $c$  elections, and  $t$  indexes time periods (relative to the election year).  $\text{Migration Outcome}_{bct}$  is migration outcome at neighborhood  $b$ , city  $c$  during period  $t$ .  $1(\text{Black Win}_c)$  is an indicator variable equal to 1 if the black mayor wins in election  $e$  at city  $c$ .  $\text{Post-Ele}_t$  is the time dummy which indicates whether it's pre- or post- the election.  $\theta_c$  controls the election-level fixed effect.  $\text{neigh}_b$  controls for neighborhood fixed effect.  $\beta_1$  identifies the differential effect of a black mayor's win on the outcome.

However, I still draw on the regression discontinuity intuition that outcomes in narrowly con-

tested elections are more plausibly exogenous than in the full range of contests. As such, while the estimating equation is a difference-in-differences specification, we restrict our attention to relatively narrowly decided contests (with margins of victory of less than 10-15 percentage points).<sup>3</sup> In my study, given that optimal bandwidths differ depending on the outcome variables and sample sizes, I start by determining the optimal bandwidths for three primary outcome variables—namely, net population for all voters, net population for black voters, and net population for white voters. I then average these three bandwidths to maintain consistency across various analyses and facilitate comparisons. Consequently, the final bandwidth for the North Carolina sample stands at a 10% vote share margin, while for U.S. major cities, it’s 13%.

### 3.2.2 Stacked difference-in-differences specification

Several recent studies have pointed out potential biases associated with two-way fixed effects difference-in-differences (TWFE-DID) estimates. This bias becomes particularly evident in scenarios that involve (1) staggered implementation of treatments, as is the case in this paper, and (2) variable dynamics of treatment effects, which we anticipate in our context (Goodman-Bacon, 2021; Baker, Larcker, and Wang, 2022). The core issue with the conventional TWFE-DID in situations of staggered treatment is that units which have already received treatment are utilized as benchmarks for those yet to receive it. Such an approach can disrupt the assumption of consistent trends.

I apply “stacked” difference-in-differences (Cengiz et al., 2019) in my analysis. This method categorizes units, which in this scenario are cities, based on the year they started receiving the treatment; I refer to these categories as treatment year groups or simply groups. Within each of these groups, I construct data panels by selecting a time frame that encompasses four years before and four years after the initiation of the treatment. To elaborate, let’s consider the city that began mayoral elections in 2014 as a case in point. I form a distinct panel for this group that includes data from 2010 to 2018. This panel not only covers the city that initiated the treatment in 2014 but also comprises control units — cities that did not undergo any treatment until at least after

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<sup>3</sup>Bandwidths of 10-15 percentage points was determined by collapsing the data to one observation per agency, measure post vs. pre changes in residualized outcomes (residualizing out the main set of fixed effects and controls used in our analysis). I then use the [Calonico, Cattaneo, and Titiunik \(2014\)](#) method, positing a polynomial of degree zero (to match that our analysis does not fit lines to either side of the cutoff), to identify the optimal bandwidth. The appendix documents the robustness to other bandwidths.

2018. This approach ensures the comparison between the districts that started the treatment in a specific year and relevant control districts within a defined timeframe, facilitating a more focused and robust analysis.

The panels are structured in a way that avoids overlapping treatment in Difference-in-Differences (DID) settings and are subsequently tacked to facilitate a unified regression that consolidates the effects observed across all the panels. This “stacked” structure employs a framework similar to the Two-Way Fixed Effects Difference-in-Differences (TWFE-DID) technique, with the added nuance of eliminating observations that are under treatment (having a black mayor) from the panels of White-win elections. Thus, identification stems from comparisons within each panel so that treated units are only being compared to “clean” – not previously treated and not soon-to-be-treated – controls.

### 3.2.3 Other concerns

While around 50% of the sample in North Carolina and 20% in major U.S. cities comprise non-partisan and Unaffiliated candidates, it’s important to investigate any correlation between the Black mayor effect and partisan influences. In Section 6.1, titled the Robustness Section I introduce another dummy variable— *emwin*. This variable takes the value 1 if the mayor is Democratic, and 0 otherwise. I then interact this variable with the time dummy *post-Ele* and incorporate it into equation 1. If there’s a strong correlation between the variation of Black versus white mayors and partisanship, then the coefficient  $\beta_1$  for  $1 * (\text{MinorWce}) * \text{Post-Ele}$  should be rendered insignificant. If not, it suggests that partisanship isn’t a driving factor behind the Black mayor effect.

## 4 Main results

### 4.1 Net population change

In this section, I first present the effects of black mayors on changes in net population at the tract level across different neighborhood categories, utilizing both event studies and tables. Figures 3 through 6 alongside table 3 reveal that in North Carolina, electing black mayors has fostered

an augmentation in the net population across all three neighborhood classifications, prominently observed in majority black and white locales. In particular, black mayors drew a nearly equal percentage of black and white residents to majority black neighborhoods (around 4%), while in diverse neighborhoods, they attracted slightly more black residents (1%) than white ones (0.5%). Notably, in white neighborhoods, there was a substantial influx of white residents. Interestingly, despite a lower baseline black population in white neighborhoods, there was a pronounced 6% increase in black residents compared to a 2% rise in white residents.

To further explore the migration patterns, I divide the above results into within-city and across-city net population changes. In other words, concentrating on the shifts stemming from inter-city migration. Table 4 shows that approximately one third of the net population augmentation in all neighborhood types is primarily fueled by individuals moving from different cities. Both majority black and white neighborhoods witness a swell in their demographics due to these cross-city relocations. Among these, majority black neighborhoods witness the most significant inter-city population boost, with black residents constituting 34% of this increase.

However, understanding the net changes in population distribution across different racial groups in various neighborhoods doesn't provide a complete picture. For example, while majority black neighborhoods saw increases in both black and white populations, it's unclear what underlies this trend. Is it due to gentrification, with affluent white and black residents moving in? Or perhaps reduced outflows, indicating residents choosing to remain? The subsequent migration decomposition will shed light on these dynamics.

Figure 3: *Net population change in all tracts (North Carolina)*

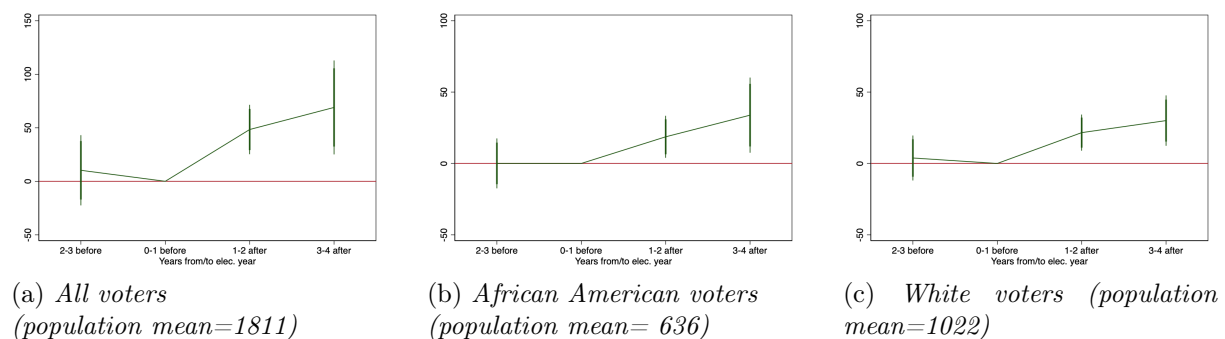


Figure 4: *Net population change in majority-black tracts (North Carolina)*

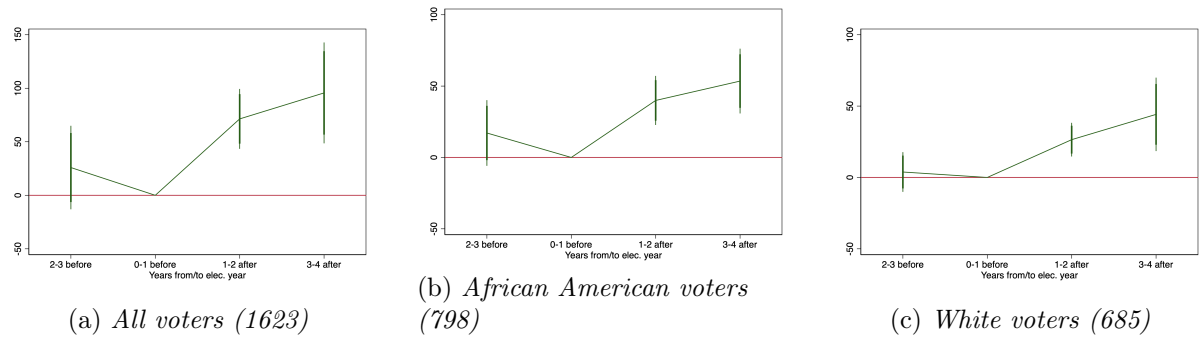


Figure 5: *Net population change in 30%-50% black tracts (North Carolina)*

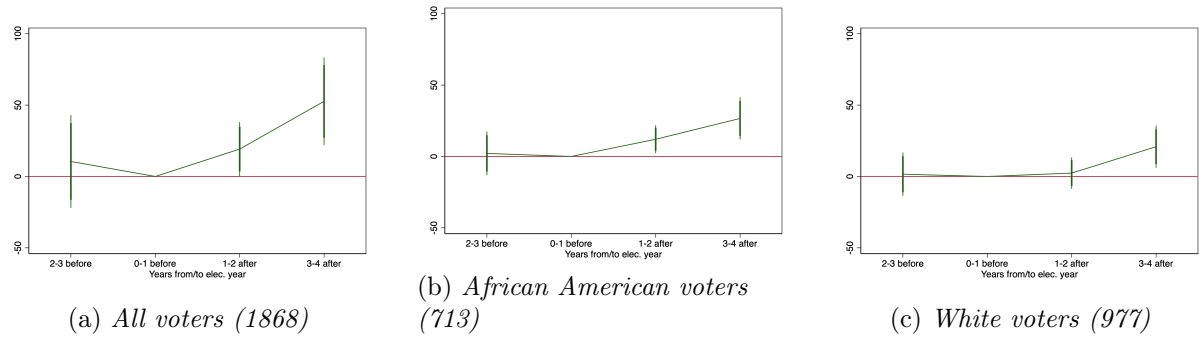


Figure 6: *Net population change in 30% less black tracts (North Carolina)*

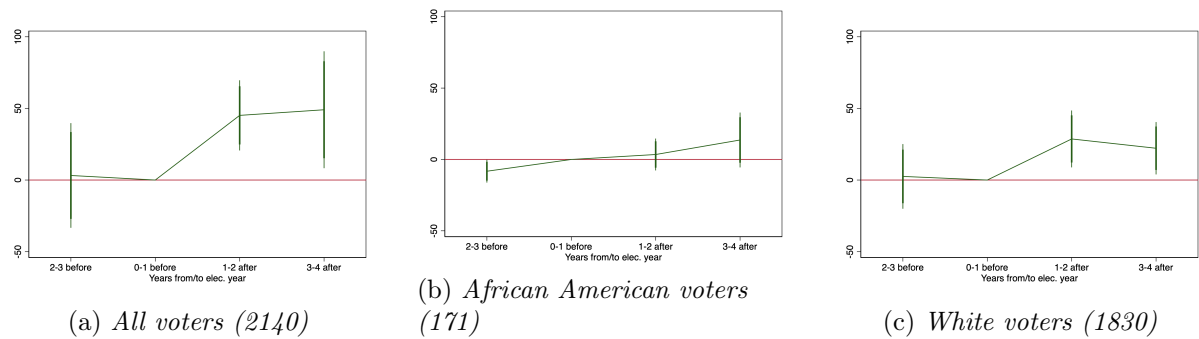


Table 3: *Population change in all types of neighborhoods*

	(1)	(2)	(3)	(4)	(5)	(6)
Panel A		all tracts			majority black tracts	
	total	black	white	total	black	white
postXminorwin	58.58*** (7.879)	25.67*** (4.484)	28.42*** (4.673)	74.13*** (11.76)	42.76*** (7.507)	32.44*** (4.476)
pop mean	1811	636	1022	1623	798	685
close election #	45	45	45	26	26	26
observations	10515	10515	10515	3863	3863	3863
Panel B		30-50% black tracts			30% less black tracts	
	total	black	white	total	black	white
postXminorwin	20.38*** (5.976)	12.98*** (3.427)	5.786 (3.806)	61.72*** (6.789)	12.00** (5.496)	37.52*** (7.730)
pop mean	1868	713	977	2140	171	1830
close election #	30	30	30	29	29	29
observations	1835	1835	1835	4510	4510	4510
year&election fe	YES	YES	YES	YES	YES	YES
tract fe	YES	YES	YES	YES	YES	YES

Notes: Significance levels are indicated by \* < .1, \*\* < .05, \*\*\* < .01.

Table 4: *Across-city net population change outcomes*

	(1)	(2)	(3)	(4)	(5)	(6)
Panel A		all tracts			majority black tracts	
	total	black	white	total	black	white
postXminorwin	19.38*** (3.087)	8.220*** (1.759)	7.084*** (2.035)	28.71*** (3.776)	14.04*** (2.275)	8.359*** (1.142)
pop mean	1811	636	1022	1623	798	685
close election #	44	44	44	26	26	26
observations	9947	9947	9947	3624	3624	3624
Panel B		30-50% black tracts			30% less black tracts	
	total	black	white	total	black	white
postXminorwin	6.249** (2.566)	3.198** (1.386)	0.888 (1.493)	15.91*** (2.992)	3.310* (1.812)	10.08*** (2.928)
pop mean	1868	713	977	2140	171	1830
close election #	30	30	30	28	28	28
observations	1738	1738	1738	4296	4296	4296
year&election fe	YES	YES	YES	YES	YES	YES
tract fe	YES	YES	YES	YES	YES	YES

Notes: Significance levels are indicated by \* < .1, \*\* < .05, \*\*\* < .01.

## 4.2 Decomposition of net population change

In this section, I examine move-in and move-out patterns. Table 5 presents data for three distinct neighborhood types. Having a black mayor results in more residents choosing to remain in their neighborhoods, with this effect being most pronounced in majority black and diverse neighborhoods. The surge in population in majority black neighborhoods is largely attributed to a reduction in departures by both black (7%) and white residents (4%). For diverse neighborhoods, the population growth is predominantly due to a 1.7% decline in the departure of black residents. In predominantly white neighborhoods, there's a noticeable 1.4% uptick in the inflow of white residents along with decreased outflows from both black (9%) and white populations (0.7%).

Turning to Table 6, which details inter-city migration trends, it's evident that having a black mayor leads to a 0.3% increase in white residents relocating into the city, who predominantly opt for white neighborhoods. Concurrently, there's a reduction in inter-city departures for both black and white residents from majority black and white neighborhoods. When combined with the insights from Table 5, the overarching narrative suggests that the net population growth is chiefly due to a reduction in departures from cities. This observation may challenge the gentrification hypothesis. Essentially, based on revealed residential preferences, the presence of a black mayor predominantly benefits those who originally resided in their neighborhoods, with the impact being more substantial for majority black neighborhoods.

Table 5: *Move-in Move-out outcomes*

	(1)	(2)	(3)	(4)	(5)	(6)
	All voters	Move-in African American	White	All voters	Move out African American	White
Panel A: All tracts						
Post*Minorwin	23.35** (10.28)	6.013 (3.849)	11.12* (5.515)	-53.33*** (12.24)	-28.40*** (7.477)	-19.26*** (3.268)
population mean	1811	636	1022	1811	636	1022
close election #	45	45	45	44	44	44
observations	10515	10515	10515	10515	10515	10515
Panel B: Majority black tracts						
Post*Minorwin	18.29 (11.84)	10.12 (7.191)	3.323 (4.130)	-96.69*** (14.56)	-52.30*** (9.506)	-30.03*** (4.417)
population mean	1623	798	685	1623	798	685
close election #	26	26	26	26	26	26
observations	3863	3863	3863	3863	3863	3863
Panel C: 30%-50% black tracts						
Post*Minorwin	13.24 (9.191)	6.076 (6.001)	3.672 (4.454)	-6.370 (7.806)	-8.100 (4.868)	-2.481 (4.431)
population mean	1868	713	977	1868	713	977
close election #	30	30	30	30	30	30
observations	1835	1835	1835	1835	1835	1835
Panel C: 30% less tracts						
Post*Minorwin	31.48** (12.81)	-1.418 (3.404)	23.03*** (8.180)	-33.06*** (11.23)	-13.12*** (3.998)	-17.84*** (5.250)
population mean	2140	171	1830	2140	171	1830
close election #	29	29	29	29	29	29
observations	4510	4510	4510	4510	4510	4510
year & election fe	YES	YES	YES	YES	YES	YES
tract fe	YES	YES	YES	YES	YES	YES

Notes: Significance levels are indicated by \* < .1, \*\* < .05, \*\*\* < .01.



Table 6: *Across-city move-in move-out outcomes*

	(1)	(2)	(3)	(4)	(5)	(6)
	All voters	Move-in African American	White	All voters	Move out African American	White
Panel A: All tracts						
Post*Minorwin	7.489*** (2.013)	2.440** (0.962)	3.358** (1.528)	-12.49*** (2.318)	-5.758*** (1.301)	-4.225*** (1.142)
population mean	1811	636	1022	1811	636	1022
close election #	45	45	45	44	44	44
observations	10515	10515	10515	9947	9947	9947
Panel B: Majority black tracts						
Post*Minorwin	6.539** (2.707)	3.843** (1.404)	0.750 (0.903)	-21.85*** (2.639)	-10.42*** (1.559)	-7.118*** (0.917)
population mean	1623	798	685	1623	798	685
close election #	26	26	26	26	26	26
observations	3863	3863	3863	3624	3624	3624
Panel C: 30%-50% black tracts						
Post*Minorwin	5.430** (2.114)	2.202** (0.977)	1.408 (1.185)	-1.322 (2.723)	-1.441 (1.333)	0.671 (1.768)
population mean	1868	713	977	1868	713	977
close election #	30	30	30	30	30	30
observations	1835	1835	1835	1738	1738	1738
Panel C: 30% less tracts						
Post*Minorwin	8.456*** (2.518)	0.778 (0.982)	6.286** (2.541)	-9.072*** (2.496)	-2.504** (0.951)	-5.197** (1.892)
population mean	2140	171	1830	2140	171	1830
close election #	29	29	29	28	28	28
observations	4510	4510	4510	4296	4296	4296
Election FE	YES	YES	YES	YES	YES	YES
Year FE	YES	YES	YES	YES	YES	YES

Notes: Significance levels are indicated by \* < .1, \*\* < .05, \*\*\* < .01.

### 4.3 Replication with National data

In this section, I extend the net population change analysis to a broader sample of 120 major U.S. cities. This is to ascertain if the patterns identified in North Carolina are consistent in other major U.S. cities. The results, represented in Figures 7 through 10 and detailed in table 7, depict the

population shifts following the election of a black mayor in closely contested elections across various neighborhoods in these major cities. On average, there's a rise of approximately 2.4% in the total population across all neighborhoods. This surge is predominantly attributed to population growth in majority black and white neighborhoods. In majority black neighborhoods, this growth is primarily attributed to an influx of black residents. Conversely, white neighborhoods witness a significant increase in both black (6%) and white residents (3%). These trends from major U.S. cities largely align with those observed in North Carolina, with a notable exception: in North Carolina cities, majority black neighborhoods see a similar influx of both white and black residents.

The findings from the major U.S. cities predominantly indicate that black mayors tend to draw more black individuals to majority-black neighborhoods, and more white individuals to white neighborhoods, hinting at a potential increase in segregation. In the following section, I will delve into the shifts in the composition of various racial groups as well as the broader city-level segregation dynamics after having a black mayor.

Figure 7: *Net population change in all tracts (U.S. major cities)*

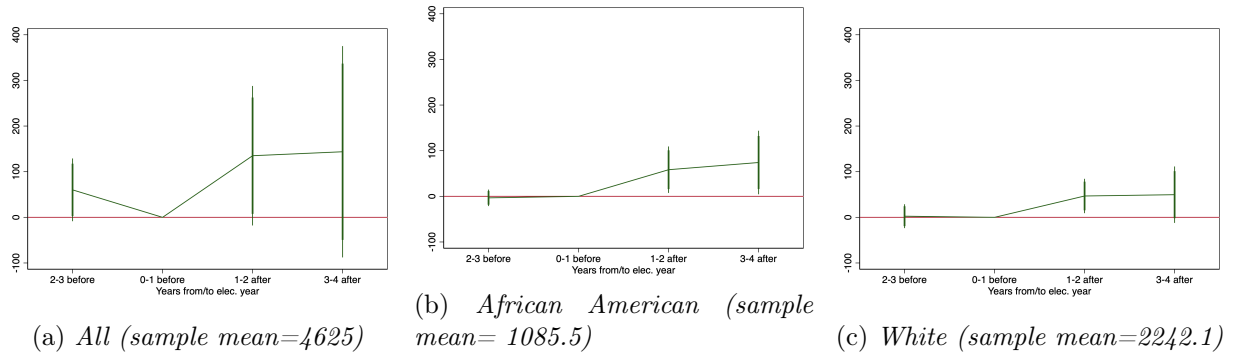


Figure 8: *Net population change in majority black neighborhoods (U.S. major cities)*

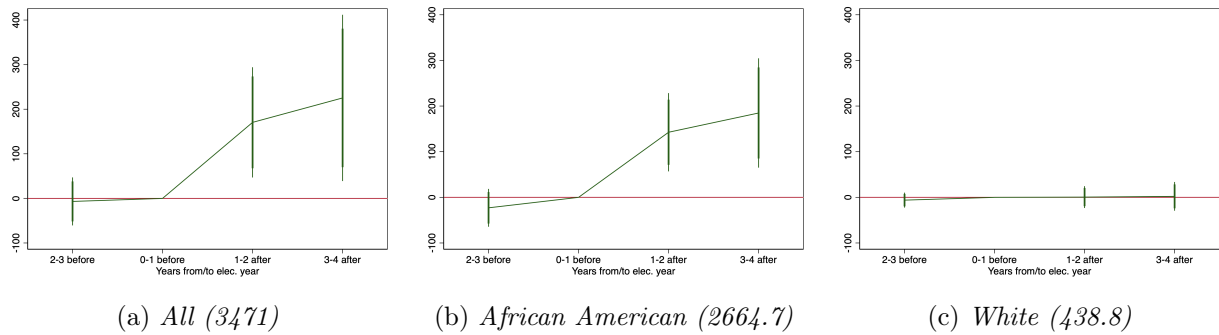


Figure 9: *Net population change in 30%-50% black neighborhoods (U.S. major cities)*

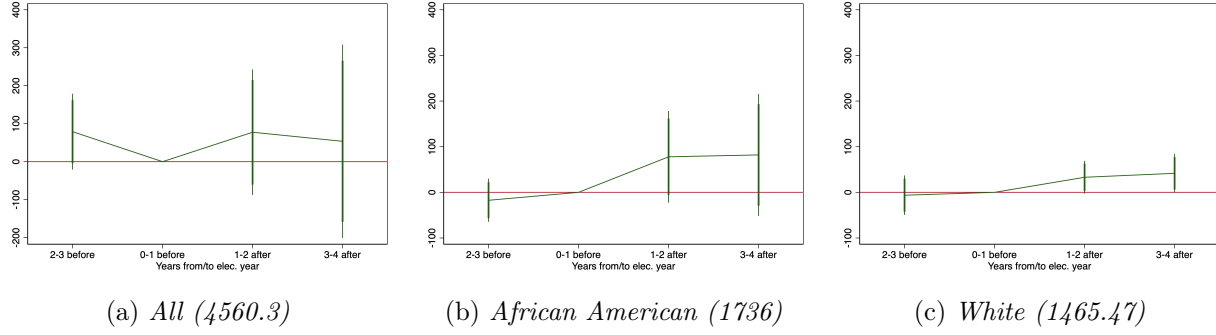


Figure 10: *Net population change in 30% less black neighborhoods (U.S. major cities)*

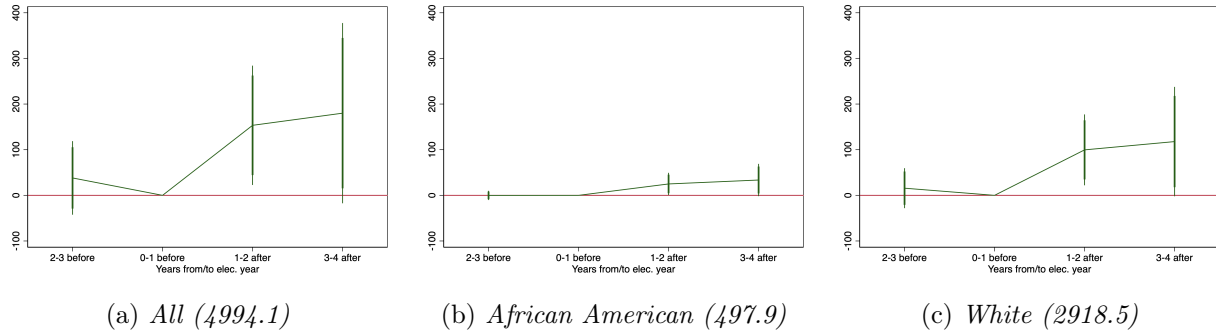


Table 7: *Population change in all types of neighborhoods*

	(1)	(2)	(3)	(4)	(5)	(6)
Panel A	all tracts			majority black tracts		
	total	black	white	total	black	white
postXminorwin	106.8 (112.2)	67.33** (30.15)	46.75 (29.02)	199.2** (81.03)	173.9*** (50.36)	4.134 (14.72)
pop mean	4625	1086	2242	3471	2665	439
close election #	52	52	52	51	51	51
observations	65206	65206	65206	15766	15766	15766
Panel B	30-50% black tracts			30% less black tracts		
	total	black	white	total	black	white
postXminorwin	24.11 (125.7)	89.03 (59.82)	40.35 (26.48)	144.8 (94.75)	28.91* (15.24)	99.23* (57.66)
pop mean	4560	1736	1465	4994	498	2919
close election #	51	51	51	52	52	52
observations	4983	4983	4983	28322	28322	28322
year&election fe	YES	YES	YES	YES	YES	YES
tract fe	YES	YES	YES	YES	YES	YES

Notes: Significance levels are indicated by \* < .1, \*\* < .05, \*\*\* < .01.

## 4.4 Segregation

Table 8 presents the changes in city-level segregation and the proportion of black residents following the election of a black mayor in a closely contested race. Columns 1 and 2 detail patterns from North Carolina, while columns 3 and 4 outline findings from major U.S. cities. While major U.S. cities tend to have a somewhat greater degree of segregation with a marginally lower average black population, results from both samples indicate that the election of a black mayor tends to boost the black population in the city and amplify its segregation. Moreover, as detailed in table A.3, the augmentation in the city-wide black demographic is primarily driven by a surge in the black population share in predominantly black neighborhoods. These outcomes align with the theoretical and empirical discoveries presented in the studies of Bayer, Fang, and McMillan (2014) and Banzhaf and Walsh (2013). These studies propose that place-based interventions aimed at enhancing public goods in high-minority communities that are initially of lower quality can inadvertently lead to an unintentional increase in group segregation. Following the election of a black mayor, it is noticeable that majority-black neighborhoods retain a disproportionately larger number of black residents who opt to stay rather than relocate to other areas, such as suburbs. The evident shifts in locational preferences and segregation trends hint at the possibility of place-based initiatives or resource redistribution taking place under the leadership of a black mayor. In the following section, I delve into potential mechanisms, assessing shifts in amenity distribution and changes in media focus post the election of a black mayor.

Table 8: *Segregation*

	(1)	(2)	(3)	(4)
	North Carolina		US major cities	
	segregation index	black share	segregation index	black share
postXminorwin	0.00560** (0.00236)	0.00516 (0.00306)	0.0104*** (0.00349)	0.00785** (0.00347)
mean	0.52	0.39	0.57	0.27
close election #	45	45	52	52
observations	15104	10515	65206	65101
year&election fe	YES	YES	YES	YES
tract fe		YES		YES

Notes: Significance levels are indicated by \* < .1, \*\* < .05, \*\*\* < .01.

## 5 Mechanisms and future implications

What did the black mayors do that attracted people moving into the city and specifically to the majority black neighborhoods? What happened to these neighborhoods? I try to answer these questions using multiple neighborhood-level amenity measures in North Carolina: environment, public school, and the number of jobs. Besides the investment reallocation, black mayors could also shift public attention to minority neighborhoods through local media. I use the local newspaper coverage of different neighborhoods as measure of public attention allocation.

### 5.1 Reallocation of locally unwanted land use

The level of air pollution significantly impacts neighborhood quality. Individual choices about where to live are heavily influenced by exposure to pollution (Bayer et al., 2016; Banzhaf and Walsh, 2008). It has been consistently observed that low-income and communities of color have faced disproportionate exposure to pollution. In economic literature, environmental disparities have primarily been attributed to household sorting patterns.(Banzhaf and Walsh, 2008; Gamper-Rabindran and Timmins, 2011; Depro, Timmins, and O’Neil, 2015; Hausman and Stolper, 2021).

In this section, I use the EPA’s Toxics Release Inventory to measure pollution exposure in each neighborhood and examine how the election of a black mayor might influence the distribution of amenities across various areas. Table 9 in Column 1 indicates that the presence of a black mayor tends to decrease the overall occurrence of TRI in the city. Columns 2-4 offer a heterogeneous analysis across white, diverse, and predominantly black neighborhoods. Notably, Columns 3 and 4 reveal that for neighborhoods already containing TRIs, the election of a black mayor significantly narrows the disparity in the number of TRIs between majority-black and white neighborhoods. These findings underscore the role local government plays in not only reshaping resource allocation across different communities but also in diminishing environmental disparities among diverse groups. While existing literature on government interventions addressing environmental inequities has predominantly centered on the Clean Air Act (CAA) amendments (Currie and Walker, 2019; Sager and Singer, 2022), pollution information disclosures (Wang et al., 2021; Banzhaf and Walsh, 2008), and various federal government-led initiatives (Haninger, Ma, and Timmins, 2017), this study pro-

vides insights into how local political economy can influence environmental injustice at a granular, neighborhood level.

Table 9: *Toxics Release Inventories outcomes*

	(1)	(2)	(3)	(4)
	TRI	TRI	TRI_num	TRI_num
	OLS	OLS	OLS	PPML
postXminorwin	-0.00591 (0.00376)	0.00331 -0.0103	0.299*** (0.0881)	0.755*** (0.249)
postXminorwinXdiverse		-0.0195 (0.0155)	-0.288*** (0.0988)	-0.622** (0.247)
postXminorwinXmajorblack		-0.0133 (0.0135)	0.0164 (0.0734)	0.0384 (0.177)
blockgroup fe	YES	YES	YES	YES
year&election fe	YES	YES	YES	YES
Elections	47	47	33	33
Observations	14036	14036	5517	5517

Notes: Sample restricted to narrow elections (less than 10% vote share margin). Column 3 reports OLS regression results, and column 4 reports results from Poisson pseudo-likelihood regression. Significance levels are indicated by \* < .1, \*\* < .05, \*\*\* < .01.

## 5.2 Reallocation of media attention

Local media holds a significant position in fostering neighborhood development. It serves as a spotlight, drawing attention to a range of issues specific to individual neighborhoods, spanning from infrastructure deficiencies to educational requisites. By spotlighting these issues, the media holds the potential to galvanize action, urging local authorities and policymakers to respond and rectify these challenges. Furthermore, local media provides a forum for community members to express their thoughts, grievances, and aspirations for their locale, ensuring a more diverse array of viewpoints are incorporated in the decision-making frameworks (Milan, 2009).

In addition to reallocating amenity resources, black mayors have the potential to redirect public attention towards minority neighborhoods, shedding light on their issues through public discussions. To investigate this further, I collect local newspaper coverage data for major U.S. cities spanning from 2000 to 2019, and the neighborhood level boundary and names data for these cities. Here, I

compare white neighborhoods with non-white neighborhoods where black share is larger than 30%. Table 10 shows that the names of minority neighborhoods are mentioned more frequently in local newspapers after the election of a black mayor. In column 1, the outcome variables represent the absolute number of local coverage for each neighborhood. Additionally, I include the total coverage of all neighborhoods in each city as a control variable. The election of a black mayor diminishes the disparity in media coverage between minority and white neighborhoods by 15% <sup>4</sup>. In column 2, the outcome variable is the proportion of coverage that each specific neighborhood receives in relation to the total coverage of all neighborhoods. The presence of a black mayor elevates the media coverage percentage for minority neighborhoods by 0.039 standard deviation.

Table 10: *Local media coverage*

	(1) coverage ppmlhdfc	(2) Share of coverage ols
post	0.0158 (0.0680)	0.00520 (0.0131)
post x minorwin	-0.117 (0.0769)	0.00362 (0.0140)
post x minorwin x minorneigh	0.140*** (0.0475)	0.0395 (0.0230)
mean	524.2	0.01
local_coverage	yes	
year, city, election FE	yes	yes
neighborhood FE	yes	yes
close election #	33	33
observation	27250	27931

Notes: Sample restricted to narrow elections (less than 13% vote share margin). Significance levels are indicated by \* < .1, \*\* < .05, \*\*\* < .01.

### 5.3 Further analysis-Public school enrollment

In this section, I delve into the influence of black leadership on public school enrollments, with a specific focus on black students and schools situated in predominantly black neighborhoods. Schools

<sup>4</sup> $100 * (\exp(0.14) - 1) \% = 0.15$



are classified based on their geographical locations into three categories: those in predominantly white neighborhoods, those in diverse neighborhoods, and those in predominantly black neighborhoods. Table 11 illustrates the varying impacts on public schools according to their neighborhood classification. The presence of a black mayor correlates with a rise in black student enrollment in schools located in majority-black neighborhoods. This trend can be attributed in part to an increase in black families relocating to these neighborhoods, subsequently boosting the enrollment of black students. Concurrently, as the school district sees an influx of black families, the school board composition may diversify. This potential diversity in leadership could lead to shifts in budget allocations and policy changes, potentially making these schools more attractive to minority groups.

Table 11: *Public school outcomes*

	(1)	(2)	(3)
	total	black	white
postXminorwin	24.88** (10.29)	1.043 (5.044)	6.023 (5.883)
postXminorwinXdiverse	35.01*** (12.62)	6.492 (9.437)	2.368 (5.648)
postXminorwinXmajorblack	34.25* (19.46)	31.95** (11.83)	-4.052 (5.281)
mean	657.8	281.4	211.7
close elections #	44	44	44
observations	6166	6166	6166
school fe	YES	YES	YES
year&election fe	YES	YES	YES

Notes: Sample restricted to narrow elections (less than 10% vote share margin). Significance levels are indicated by \* < .1, \*\* < .05, \*\*\* < .01.

## 6 Robustness tests

### 6.1 Partisanship versus black mayor effect

In mayoral elections between Black and white candidates in North Carolina, only 14.8% are contests between Republican and Democratic candidates. Given this, it's essential to explore if there's a

correlation between the Black mayor effect and partisan dynamics. I've incorporated an interaction between the partisan dummy and the election time dummy into equation 1. As presented in Table 12, even after including the interaction term *postXdemwin*, the coefficients for *postXminorwin* remain significant across all specifications. Most of the partisan coefficients are insignificant except for the white population in majority black neighborhoods and the black population in diverse neighborhoods. The findings above indicate that the effects of having a Black mayor can largely account for the migration patterns in most of the scenarios presented. While a mayor's partisanship might influence racial distribution, it isn't the primary factor shaping these outcomes.

Table 12: *Results with party controls*

	(1)	(2)	(3)	(4)	(5)	(6)
Panel A	All neighborhoods			50% more black neighborhoods		
	total	black	white	total	black	white
postXminorwin	69.49*** (18.91)	26.02*** (8.220)	29.29*** (9.838)	83.44*** (28.18)	54.36** (19.49)	19.17*** (4.697)
postXdemwin	-14.54 (20.06)	-0.464 (8.674)	-1.161 (12.85)	-11.58 (28.71)	-14.43 (19.58)	16.52*** (4.724)
	45	45	45	26	26	26
Observations	10515	10515	10515	3863	3863	3863
Panel B	30-50% black neighborhoods			30% less black neighborhoods		
	total	black	white	total	black	white
postXminorwin	40.80*** (12.65)	23.01*** (3.689)	12.55 (8.522)	67.36*** (11.77)	9.778 (6.637)	35.26*** (9.641)
postXdemwin	-27.55* (14.25)	-13.53*** (4.002)	-9.126 (8.637)	-8.296 (13.94)	3.265 (6.970)	3.322 (14.29)
close election #	30	30	30	29	29	29
Observations	1835	1835	1835	3579	3579	3579
year&election fe	YES	YES	YES	YES	YES	YES
tract fe	YES	YES	YES	YES	YES	YES

Notes: Sample restricted to narrow elections (less than 10% vote share margin). Significance levels are indicated by \* < .1, \*\* < .05, \*\*\* < .01.

## 6.2 Stricter migration standard

To prevent confusion between new registrations and inflows, as well as deceased registrations and outflows, I applied a more rigorous standard to the migration data by omitting all initial and final registration entries. The results remain consistent with earlier observations. Table 13 showcases the primary findings from this revised migration dataset. The pattern of results bears a strong resemblance to those in section 4, but with an approximately 20% <sup>5</sup> reduced magnitude. By leaving out all initial and final registration records, I eliminate not only potential new registrants and deceased voters but also potential inter-state migrants. This is because first-time registrations could also be from individuals relocating to North Carolina from other states. The similarity between these findings and the main results reinforces the robustness of the identification.

Table 13: *Results with stricter migration standard*

	(1)	(2)	(3)	(4)	(5)	(6)
Panel A	all tracts			majority black		
	total	black	white	total	black	white
postXminorwin	41.95*** (7.643)	15.13*** (3.237)	18.99*** (4.722)	52.02*** (11.42)	28.82*** (6.694)	16.43*** (3.617)
pop mean	1811	636	1022	1623	798	685
close election #	45	45	45	26	26	26
Observations	10515	10515	10515	3863	3863	3863
Panel B	30-50% black tracts			30% less black tracts		
	total	black	white	total	black	white
postXminorwin	15.23** (6.526)	8.556** (3.852)	5.533 (3.593)	45.04*** (7.637)	4.190 (4.064)	27.98*** (6.386)
pop mean	1868	713	977	2140	171	1830
close election #	30	30	30	29	29	29
Observations	1835	1835	1835	4510	4510	4510
year&election fe	YES	YES	YES	YES	YES	YES
tract fe	YES	YES	YES	YES	YES	YES

Notes: Sample restricted to narrow elections (less than 10% vote share margin). Significance levels are indicated by \* < .1, \*\* < .05, \*\*\* < .01.

<sup>5</sup>For the overall net population change across all tracts, the primary results in section 4 have a coefficient of 58.5. In comparison, the coefficient from this new sample is  $(58.5-47.12)/58.5 = 19.4\%$

### 6.3 Excluding re-elected black mayor

In the set of mayoral elections contested between Black and white candidates, 10% have a Black incumbent who gets re-elected for a subsequent term. Such cities have experienced Black leadership for over four years, potentially leading to different dynamics compared to cities transitioning from a white to a Black mayor. In this section, I leave out the re-elected Black mayors and center my analysis on cities undergoing a racial shift in leadership from white to Black. Table 14 showcases the net population data from this refined sample. The results closely mirror the initial findings, though most of the coefficients are of a reduced magnitude. Notably, the coefficients for net population change in predominantly black neighborhoods see a significant reduction. For example, the overall net population change effect drops from 74.13 to 55.16. A plausible interpretation is that the influence of a Black mayor is magnified in cities that have successive terms under Black leadership, or in cities where a Black mayor gets re-elected.

Table 14: *Results without reelected black mayors*

	(1)	(2)	(3)	(4)	(5)	(6)
Panel A		all tracts			majority black	
	total	black	white	total	black	white
postXminorwin	47.12*** (13.66)	18.74*** (5.127)	25.07*** (8.013)	55.16** (22.20)	35.65* (20.38)	21.51*** (4.956)
pop mean	1811	636	1022	1623	798	685
close election #	43	43	43	24	24	24
Observations	6466	6466	6466	2109	2109	2109
Panel B		30-50% black tracts			30% less black tracts	
	total	black	white	total	black	white
postXminorwin	21.97** (8.178)	16.65*** (5.755)	5.556 (6.088)	55.54*** (12.71)	6.756 (4.430)	37.54*** (13.05)
pop mean	1868	713	977	2140	171	1830
close election #	28	28	28	27	27	27
Observations	1319	1319	1319	2914	2914	2914
year&election fe	YES	YES	YES	YES	YES	YES
tract fe	YES	YES	YES	YES	YES	YES

Notes: Sample restricted to narrow elections (less than 10% vote share margin). Significance levels are indicated by \* < .1, \*\* < .05, \*\*\* < .01.

## 7 Conclusions

This paper studies the impact of minority representation in local government on individual migration decisions within and across the cities and residential segregation. I construct individual-level migration data using North Carolina voter registration data, and causally identify black mayors' impact on black and white voters' foot voting behavior using close-election R.D. design. I find that in North Carolina cities, electing black mayors has led to an increase in the net population across both majority-black and non-majority-black neighborhoods, with a notable surge in majority-black and white neighborhoods. Specifically, black mayors have attracted approximately equal proportions of black and white residents to predominantly black neighborhoods— both groups grew by around 4%. In neighborhoods where the black population is less than 30%, there's a significant influx of white residents (2%). Additionally, When expanding the analysis to encompass 120 major U.S. cities, the trends observed in North Carolina largely mirror those in these cities. A deeper dive into migration decomposition reveals that, on average, the net population growth is mainly due to a reduction in outflows. The rise in population in predominantly black neighborhoods primarily stems from a drop in the departure rates of both black (7%) and white (4%) residents. In mixed neighborhoods, the increase is mainly attributed to a 1.7% decrease in black residents' outflows. In white-majority neighborhoods, there's an evident increase of 1.4% in white residents' inflows and a concurrent decrease in both black and white residents' outflows. These results challenge the gentrification hypothesis. Compositionally, electing a Black mayor enhances the proportion of Black residents in the city and heightens its segregation, hinting at potential place-based investment or resource reallocation under the leadership of a black mayor. Further analysis into the underlying mechanisms shows that minority representation narrows the amenities disparity between majority-Black and white neighborhoods and also shifts local media focus towards these areas. These findings indicate that minority representation might lead to a more equitable distribution of resources towards minority-dominated neighborhoods, temper the pace of black suburbanization, and enhance the overall appeal of cities for various groups.

## A Appendix: Additional Results

### A.1 Summary statistics for other datasets

Table A.1: *Summary Statistics of Public school enrollment*

<b>North Carolina K12 Public School Enrollment</b>	
	Percent
Black share	28.2%
White share	51.1%
Others	20.6%
Female/Male	112%

Table A.2: *Summary Statistics of local news and neighborhood demographics*

Variable	Obs	Mean	Std. Dev.	Min	Max
neighborhood population	52,488	6873.293	15746.11	0.0002741	216437.3
neighborhood black share	52,488	0.2776021	0.2587979	0	0.9856255
neighborhood media coverage	52,488	656.8309	1788.87	0	37730

## A.2 Segregation in different types of neighborhoods

Table A.3: *Black share across neighborhoods*

	(1)	(3)	(2)	(4)
Panel A: North Carolina		black share		
	all	50% more	30-50%	30% less
postXminorwin	0.00516 (0.00306)	0.0106*** (0.00331)	0.00727 (0.00517)	0.00214 (0.00419)
mean	0.39	0.68	0.39	0.13
close election #	45	26	30	29
observations	10515	3863	1835	4510
Panel B: US major cities	all	50% more	30-50%	30% less
postXminorwin	0.00785** (0.00347)	0.0145*** (0.00525)	0.0181** (0.00889)	0.00204 (0.00171)
mean	0.27	0.73	0.36	0.09
close election #	52	51	51	52
observations	65101	15702	4983	28292
year&election fe	YES	YES	YES	YES
tract fe	YES	YES	YES	YES

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