Segregation by Design

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Abstract:
Over the course of the 20th century the spatial scale of residential segregation along race and class lines increased. In the late 1800s, whites and people of color, renters and owners, poor and wealthy, were separated from each other in small clusters, so that residential segregation occurred block-to-block. By the middle of the 20th century segregation patterns had transformed; residents became segregated neighborhood-to-neighborhood. Throughout the post-war period, segregation between whole cities rose as the nation suburbanized. In recent decades, city-to-city segregation has remained remarkably persistent despite increasing neighborhood integration. Because political representation is geographically determined, these changing patterns have had profound political consequences – generating opportunities for exclusion and increasing polarization. I argue that local governments have been instrumental in driving and shaping these patterns; and they have done so largely in the name of protecting both property values and exclusive access to public goods for white property owners. When property values and public goods exclusivity were threatened, property owners changed their tactics – shifting the spatial of segregation higher. This process has always been Segregation by Design.

Conventional wisdom holds that segregation and the resulting deficit in services that the poor and people of color experience in American cities is driven by a combination of individual racial prejudices, market logic, and federal policy. This is an insufficient account because it ignores the institutional setting in which racism, economics, and federal law are embedded. Local politics structures the way in which all of these forces unfold.

Using qualitative historical evidence from large cities throughout the United States and quantitative data from hundreds of cities, I demonstrate that segregation and the unequal distribution of public goods accruing to individuals and neighborhoods are a function of local policies and political battles. Land-use planning, zoning, and redevelopment have been utilized by white homeowners and businesses seeking to enhance property values and monopolize public goods to generate segregation and inequality in access to benefits for over 100 years.

The changing spatial patterns of segregation have had important implications for political representation. Poor and minority residents have become more isolated and less able to secure political responsiveness and public benefits. In turn, segregation affects both local and national politics. In cities, segregated communities are more polarized and less willing to fund public goods. At the national level, neighborhoods that successfully resisted integration during the civil rights era are markedly more conservative today.

Instead of receding, segregation within cities and between cities and suburbs has grown over the past several decades, further antagonizing the imbalance of public benefits between the haves and the have-nots.
# Table of Contents

Introduction .................................................................................................................................................. 3

A Theory of Segregation by Design ......................................................................................................... 15

The Geography of Inequality .................................................................................................................... 19

Empirical Expectations ............................................................................................................................ 22

Important Caveats .................................................................................................................................. 23

  *Schools (or lack thereof)* ....................................................................................................................... 23

  *Data Hurdles* ....................................................................................................................................... 24

Contributions to Existing Literature ........................................................................................................ 26

Chapter Summaries ................................................................................................................................. 29

Chapter 1: Segregation and Public Goods over the 20\textsuperscript{th} century .......................................................... 35

  *The Rise of Urban America* .................................................................................................................. 36

City Spending Data .................................................................................................................................. 40

Explaining and Measuring Segregation ................................................................................................... 53

Suburbanization – Another Form of Segregation ................................................................................... 61

Chapter 2: Local Government Action Contributes to Segregation 1900-1940 ........................................... 71

  *Zoning Generates Segregation* ............................................................................................................... 91

Chapter 3: Inequality in Public Goods Provision, 1900-1940 ................................................................. 100

  *Jim Crow and Public Goods Inequalities* ............................................................................................... 103

  *Inequalities Generated Through Residential Segregation* .................................................................. 108

Chapter 4: City policy maintains/deepens segregation, 1940-1970 ......................................................... 125

  *Urban Renewal and Segregation* ............................................................................................................ 126


  *Understanding the Link Between Segregation and Suburbanization* .................................................. 150

  *Public Opinion on Local Spending* ....................................................................................................... 155

  *Measuring Suburbanization, A New Approach* .................................................................................... 157

  *Land Use Regulation and Suburban Segregation* .................................................................................. 165

Chapter 6: Segregation and Public Goods Provision, 1982-2012 ............................................................. 172

  *Literature and Hypotheses* .................................................................................................................... 173

  *Segregation and Political Polarization* ................................................................................................. 176

  *Diversity and Segregation in the Aggregate* ......................................................................................... 181

  *Segregation and Sewer Overflows* ........................................................................................................ 195
Chapter 7: The Local Roots of Modern Conservatism ................................................................. 200
Entanglements of Ideology and Integration .............................................................................. 201
The Effect of Context ............................................................................................................... 209
Conservatism and Race .......................................................................................................... 211
Empirical Evidence ............................................................................................................... 212
Individual Level Conservatism .............................................................................................. 213
Prejudice and Policy .............................................................................................................. 230
Chapter 8: Conclusion .......................................................................................................... 235
References ............................................................................................................................ 240
Data Appendix ...................................................................................................................... 272
Introduction

“Segregated people in a nation that professes to be a democracy soon become a frustrated people. Those who segregate others soon become frightened, insecure people forced to accept and invent prejudice to justify their actions” Robert C. Weaver, The Negro Ghetto, 1948

City services sustain, prolong, and even save lives. In the latter half of the 19th century, urban American began a rapid ascent. City populations and economies were booming. But too were their filth, their disease, and their divisions. By 1900, infectious and parasitic diseases killed nearly 8 in every 1,000 residents; accounting for more than 45% of all deaths (Tippett 2014) and more than 60% of deaths in children (Guyer et al 2000). Between 1900 and 1940, the overall mortality rate in the United States declined by 35% (Linder and Grove 1947) and the infectious disease mortality rate declined by 75% (CDC 1999). In some cities in 1900, 30% of babies would not live to celebrate their first birthday (Meckel 1990). Estimates indicate that between one quarter and one half the decline in total mortality can be attributed to the development of public water and sewer systems. Local public works significantly reduced outbreaks of diseases like cholera, typhoid fever, diarrheal diseases, and malaria (Cutler and Miller 2006, Troesken 2004). Over time, the growth of municipal fire and police forces, street cleaning and refuse disposal, childhood vaccination and physical examination programs, regulation of food supplies (e.g. requirements for milk pasteurization), and the implementation of

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2 Total mortality declined from 17 per 1,000 persons to 11 per 1,000 persons.
3 http://www.cdc.gov/mmwr/preview/mmwrhtml/mm4829a1.htm#fig1
4 It is important to note that the dramatic improvement in mortality from water and sewer systems required the development of filtration and treatment techniques, which were not immediately available when the systems were first built.
building codes all worked to prolong life expectancy (Condran and Cheney 1982, Haines 2001, CDC 1999).

However, such benefits were neither inevitable nor universal. From the beginning poor and minority neighborhoods received fewer and lower quality services: they were less likely to be connected to sewers, have graded and paved streets, or benefit from disease mitigation programs. Today, the quality of public goods in the United States remains highly variable. Some people have access to well-paved and plowed roads, sewers that never overflow, public parks with swing sets and restrooms, adequately staffed police and fire forces, and clean water. Others do not have access to these resources. The quality of such services is largely a function of the neighborhood, city, and state in which a person resides. The degree to which the poor and people of color have been concentrated into identifiable residential locations (e.g. segregation), varies from place and to place, and everywhere has changed dramatically over time.

Over the course of the 20th century the spatial scale of residential segregation along race and class lines increased (Logan et al 2015, Reardon et al 2009, Lee et al 2008). In the late 1800s, whites and people of color, renters and owners, poor and wealthy, were separated from each other in small clusters, so that residential segregation occurred block-to-block. By the middle of the 20th century segregation patterns had transformed; residents became segregated neighborhood-to-neighborhood. Throughout the post-war period, segregation between whole cities rose as the nation suburbanized. In recent decades, city-to-city segregation has remained remarkably persistent despite increasing neighborhood integration. Because political representation is geographically determined, these changing patterns have had profound political

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5 This book explores race and class divisions in local politics and residential locations. There are many ways one might go about defining these groups. As explained in more detail in Chapter 1, I focus on divisions between whites and nonwhites, and homeowners and renters. I use the terms minority and nonwhite interchangeably. I also use the terms black and African American interchangeably.
consequences – generating opportunities for exclusion and increasing polarization. I argue that local governments have been instrumental in driving and shaping these patterns; and they have done so largely in the name of protecting both property values and exclusive access to public goods for white property owners. When property values and public goods exclusivity were threatened, property owners changed their tactics – shifting the spatial of segregation higher. This process has always been Segregation by Design.

An example from Southern New Jersey is illustrative. Camden and Cherry Hill, New Jersey are similarly sized cities, just across the Delaware River from Philadelphia. Camden is home to two superfund (toxic waste) sites; Cherry Hill is home to none. In Camden only 1.7% of state roads had good pavement in 2004 compared to 35% in Cherry Hill. Camden has 22 combined sewer overflow outfalls (where raw sewage and storm water may be released to the surface during wet weather), while Cherry Hill has zero. Camden offers no e-waste recycling and no yard waste collection; Cherry Hill provides both. In 2012, Camden’s water supply ran so low that residents were required to boil water for consumption and were prohibited from watering their gardens. In contrast, Cherry Hill has a clean, plentiful water supply. The Cherry Hill Public Library has more than 400,000 circulating materials, more than 300 adult programs and classes, and 67 public computers. In 2011, Camden shuttered the doors of its main library and handed control of the remaining two small branches to the county. Cherry Hill offers 63 recreational facilities (parks, art centers, tennis courts, etc.) for its residents and supports 13

6 https://www.epa.gov/superfund/search-superfund-sites-where-you-live
7 http://www.state.nj.us/transportation/works/njchoices/pdf/camden.pdf
8 Personal communication with New Jersey Department of Transportation. The NJDOT provided data from the NJDOT Pavement Management System by email. Available from the author by request.
different swim clubs. \(^{12}\) Camden has 25 parks and 8 community centers. \(^{13}\) Between 2007 and 2012, Camden’s city budget declined by about $245 per resident, while Cherry Hill’s increased by about $12 per capita. Clearly, living in Camden is unlike living in Cherry Hill. So, how did Cherry Hill and Camden get to be so different?

The story begins with a focus on Camden at the turn of the century. Although Cherry Hill was incorporated as a municipality in 1844, it remained a small, undeveloped agricultural community in the first few decades of the 20\(^{th}\) century. In 1900, Camden had a population of nearly 76,000 residents. The city boasted 55 miles of sewers, 79 miles of water mains, and about 38% of the city’s streets were paved; figures that suggest that Camden’s development was right in-line with national averages. Also similar to other cities, were Camden’s level of race and class segregation. By the turn of the century, Camden was home to two well-established free black communities named Fettersville and Kaighnsville (Garwood 1999). Established in the 1830s (Fettersville) and 1840s (Kaighnsville), these communities were comprised of small lots affordable to people of modest incomes, many of whom were African American (Garwood 1999). One of Fettersville’s neighborhood churches, the Macedonia African Methodist Episcopal Church, was believed to be a stop on the Underground Railroad (Garwood 1999). While the majority of Camden’s black residents lived in Fettersville and Kaighnsville, both neighborhoods were predominately populated with white, working-class residents.

According to the 1900 Census, the wards representing Fettersville and Kaighnsville were about a quarter African American. For a city in which African Americans only comprised 8% of the total population, clearly, blacks were not evenly spread across the city. But, the extent and scale of black segregation would increase dramatically by 1940. By 1940, the share of black

\(^{12}\) http://www.cherryhill-nj.com/Facilities
\(^{13}\) http://ecode360.com/8508679
residents had increased to 11%, but this growth in the black population was concentrated geographically in the central and southern parts of town. Figure 1 shows that by 1940, the black concentration in parts of Camden exceeded 50%.
The creation of Camden’s segregated neighborhoods echoed the creation of segregated neighborhoods throughout the United States. Camden city government used zoning laws, the placement of segregated schools, and public housing to create and enforce residential segregation between whites and Africans Americans, as well as between renters and homeowners. New Jersey’s zoning enabling statute specified that regulations “must be made with reasonable
consideration, among other things...with a view of conserving the value of property,”
(Cunningham 1965). Camden first authorized zoning in 1928 and like other early zoning
adopters, moved quickly to ensure that land use policy was used strategically to protect the
interests of white home-owning residents.

By 1930, Camden was a bustling central city. It had more than 118,000 residents and
spent nearly $950 (in 2012 dollars) per capita on municipal expenditures – well above the
national median. But the stress of the Great Depression left Camden with an enormous burden
of vacant and uninhabitable properties (Housing in Camden, 1942)\textsuperscript{14}. And, so it was one of the
earliest recipients of federal slum clearance and public housing funding in the 1930s (Pommer
1978). In 1938, two buildings were erected – one for whites and one for blacks. When the
program was expanded in the 1940s two more projects were built; also segregated.
Unsurprisingly, the neighborhoods around each project increasingly came to reflect the race of
public housing occupants (Williams 1966a\textsuperscript{15}). Later, when Interstate 95 was run through the
city, “an attempt [was] made to eliminate the Negro and Puerto Rican ghetto areas” (New Jersey

Overtime, neighborhood segregation in Camden rose; climbing more than 50% in the
first half of the 20\textsuperscript{th} Century. As would be the case in cities throughout the United States,
Camden’s city government underprovided services to its black neighborhoods (Helzner 1968\textsuperscript{16},
Silvotti 1968\textsuperscript{17})

\textsuperscript{14} http://www.dvrbs.com/hacc/CamdenNJ-HousingAuthority.htm http://www.dvrbs.com/hacc/CamdenNJ-
HousingAuthority.htm
\textsuperscript{15} Camden Courier-Post, June 8, 1966
\textsuperscript{16} Helzner, Gerald, Camden Courier-Post, March 7 1968, p 13
\textsuperscript{17} Silvotti, Bert, Camden Courier-Post, March 18, 1968
Starting around the time of the Second World War, the city faced desegregation pressures on a number of different fronts. In 1881, the state of New Jersey passed a law prohibiting the segregation of schools by race (Wright 1953). But, as of 1944, no black children attended white elementary schools (Jensen 1948). When the NAACP sued the district, officials responded that black parents had simply not requested attendance at their neighborhood schools. So, the NAACP took out ads in the Camden Courier Post to convince parents to do just that. In 1947, hundreds of black children enrolled in previously all-white schools (Wright 1953).

School desegregation was just one of the first of many signs of racial transition in Camden. In 1951, the city witnessed its first biracial contest for city council when Dr. Ulysses S. Wiggins, the president of the Camden NAACP Branch, was nominated on the Republican ticket (Chicago Defender April 21, 1951). He lost, but in 1961, Elijah Perry became the city’s first African American city council member (Riordan 1996). In 1954, the New Jersey Supreme Court ordered public housing to be desegregated and the first black families moved into white buildings in 1966 (Williams 1966a, Williams 1966b). And in 1969 and 1971, the city erupted in violent race riots, touched off by police brutality against black and Latino residents.

In 1940, the little hamlet of Cherry Hill had a population just under 6,000 residents; they were 91% white and 9% black. Not only small, the city was economically weak, having defaulted on its bond obligations been placed in receivership by the state government during the Depression (Shay v Delaware 122 N.J.L. 313, 316 (N.J. 1939), Cammarota 2001). But after the war, while housing and schools in Camden were integrating, Cherry Hill’s population and economy exploded, as was true of suburbs throughout the nation.

18 Riordan, Camden Courier Post, February 2, 4B
19 Camden Courier-Post, June 9, 1966, p17
20 http://lwd.dol.state.nj.us/labor/lpa/census/2kpub/njscp3.pdf; Camden Historical Society scan****
Drawn to places like Cherry Hill by the attractiveness of low-cost federally insured mortgages, the development of new homes and new employment opportunities in outlying communities, and easy commuting along newly built federal highways, the nation suburbanized and white homebuyers moved to the periphery (Jackson 1985). After the war, Cherry Hill witnessed a tenfold increase in 30 years. During the same period, Camden lost 13% of its residents.

Figure 2 shows the share of the total population living in rural areas, central cities, and suburbs over the 20th century. The graph reveals that the pace of suburbanization increased sharply during the postwar period so that by 1970, a plurality of the population lived in suburbs.21 The homeownership rate increased at the same time. This latter fact is important because it helps to explain the driving force behind exclusionary zoning adopted by suburban communities.

21 Rural here refers to population outside of any metropolitan area. A suburb is an area inside of a metropolitan area, but outside of the central city. City refers to the central cities of metro areas.
As Camden rushed to utilize more than $30 million in federal redevelopment funds to revitalize its flagging urban center, Cherry Hill was busy implementing zoning restrictions that effectively prohibited the development of low-or even moderate-income housing (Cammarota 2001). In 1975, black residents of Mount Laurel, New Jersey (a suburb close to Cherry Hill both geographically and demographically) along with several local chapters of the National Association for the Advancement of Colored People (NAACP), won a class action lawsuit challenging Cherry Hill’s type of exclusionary zoning. As a direct result of this decision, Cherry Hill was required by the state to zone for thousands of low-income housing units. The city declined to do so. As of 2015, Cherry Hill continued to face litigation for its failure to zone for
affordable housing. As is true in many places throughout the United States, exclusionary economic zoning cannot be disentangled from race. One activist argued “many residents carried racist feelings about affordable housing, fearing it would attract poor blacks and Hispanics.”

Figures 3 and 4 reveal how segregation between Camden and Cherry Hill changed between 1970 and 2010.

**Figure 3: Segregation in Camden and Cherry Hill, 1970**

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In 1960 Camden was 76% white; and the maps show that in 1970, although home to many more people of color than was true in 1940, Camden still had several exclusive white neighborhoods. These white neighborhoods had all completely disappeared by 2010. So, even though Cherry Hill diversified to a limited extent, a greater share of segregation occurs between these cities than within them.

Those who left Camden during the postwar period and those who moved to Cherry Hill were largely white, middle-and upper-class. As of 2014, about 39% of Camden’s population owned their homes, 5% were white, and the annual median household income was $26,000. In Cherry Hill, 80% owned their homes, 75% were white, and the median household income was
In 2012, per capita taxes in Cherry Hill were double Camden’s. Camden simply cannot afford to offer the services that Cherry Hill provides. The segregation along race and class lines between these two cities, and the resulting inequality in access to public goods was produced by public policy. It is a pattern that was replicated many times over throughout the United States; a postwar version of similar patterns that had developed at the turn of the 20th century.

A Theory of Segregation by Design

In the late 1800s as industrialization brought thousands of migrants and immigrants into cities, people of color and the poor were spatially isolated, not by ward or census tract, but by building and street (Logan et al 2015). What this means is that although blacks, Latinos, and Chinese residents were unlikely to live next door to white homeowners, they were quite likely to live down the street. By 1940, segregation shifted up to the neighborhood level (Cutler et al, Massey and Denton), so that large swaths of many cities had become predominately black or white, and both poor and wealthy residents became increasingly clustered in most places. By the onset of the Second World War, every large city in America had parts of town where people of color lived, and parts of town where the poor lived. Sometimes, but not always, these neighborhoods overlapped. Race and class segregation both increased by more than 50% between 1900 and 1940. These concentrating trends continued at a slower pace throughout the postwar period until 1970, when both race and class neighborhood segregation peaked. Neighborhood segregation by race has declined since 1970, but segregation by class has

http://www.census.gov/quickfacts/table/PST045215/3410000,3400712280,00
increased. During the post-war period segregation between cities increased and has remained stable since that time (Massey and Hajnal 1995, Farrell 2008, Fischer et al 2004).

Two classic economic models of individual choice appear to predict these different patterns of segregation. Thomas Schelling (1971) argued that extreme racial segregation could result from individual decisions about where to live, given even mild preferences for having neighbors of the same race. Only a small number of racially intolerant white residents can cause a neighborhood to rapidly transition because as each intolerant white resident is replaced with a black neighbor, whites with lower and lower levels of intolerance choose to leave, creating neighborhood-to-neighborhood segregation. The second individual choice model predicts city-to-city segregation. Charles Tiebout (1956) proposed that residents with similar preferences for taxation and public goods provision should sort themselves into cities with like-minded neighbors. To the extent that heterogenous preferences for tax and spending levels (or ability to pay) overlap with heterogenous demographics, they will also generate segregation.

The trouble is that both theories are subject to instability in the absence of collective enforcement mechanisms (Oates 1969, Oates 1981, Fischel 1992). That is, for an individual to ensure that her neighborhood remains white and has access to a nice public park, she needs the cooperation of her neighbors. But, neighbors may have individual incentives that undermine the achievement of other residents’ collective goals. For instance, it can be extremely lucrative for a white homeowner to sell her home to a black buyer. This is especially likely to be the case when black housing options are restricted and when the black population is expanding. As Hamilton

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25 The precise pattern of class segregation depends on the measures used to indicate class. Income segregation has increased significantly since the 1970s (although remains lower than racial segregation), while homeowner/renter segregation has increased by a smaller amount.

26 Banzhaf and Walsh combine Schelling and Tiebout’s insights into a single model that establishes that preferences over public goods and demographics are mutually reinforcing in the generation of segregation (2010).
(1975) explained, individual incentives can also undermine the Tiebout model. It also makes fiscal sense for a resident who prefers high quality public goods, but is unable to afford high tax rates, to locate the smallest, least expensive home in a wealthy city. The taxes this resident pays do not support the share of the public goods she utilizes, but she benefits from them nonetheless. In Hamilton’s tale, this behavior could lead to wealthy residents chasing each other around to try and maintain exclusivity. In the first instance, the collective goal of maintaining the white neighborhood is undermined by sellers seeking the highest sale price. In the second instance, the provision of public goods is undermined by residents who do not pay the full cost.

Governments can promote collective action by generating enforcement of collective goals; and here it is local governments that play the starring role, because they alone regulate land-use. By invoking their powers of control over land-use and making choices about service provision, local governments can affect the aggregate demographic makeup of communities and the spatial distribution of residents and services, thereby generating and enforcing segregation. The goal of these policy choices is stability (or enhancement) of property values and the protection of public goods quality.

As North (1990) explains, the relative bargaining strength of different interests in any community will dictate the structure of its rules. Such rules, he tells us, are frequently devised in to promote private rather than public interests (p48). The history of local land-use planning and service provision fits squarely within this theoretical perspective. Property owners (and those who derive their livelihood from property, like realtors and lenders)27, seek both property value appreciation and protection from losses in value. Because tax levels, service quality, and

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27 Developers, while also obviously earning their livelihood through property only sometimes have goals that are aligned with homeowners’. In some settings, developers prefer fewer regulations on development (allowing them to build smaller homes on smaller lots or denser multifamily structures, for example), but in others they are strong proponents of restrictive mechanisms like large lot zoning and racial covenants.
neighborhood demographics are capitalized in property values (see Hilber 2011 for a review), property owners invest considerable energy into dictating local policy (Fischel 2001, Stone 1989; Logan and Molotch 1978).

In the United States, property owners have always been disproportionately white; and property value has been tied to the race of occupants and neighbors (Hayward 2013, Freund 2007). Furthermore, as Bradford, Malt, and Oates (1969) argued, the quality of many public goods, like education and public safety, is predominantly affected by the characteristics of the residents themselves rather than inputs from the government. Together these circumstances have given property owners a powerful incentive to regulate who lives where since the very earliest years of urbanization. In particular, white property owners have long been concerned with excluding certain types of people from their communities.

From the earliest years of city development, white, native-born Americans had a racialized, classist understanding of property value and deservingness of public benefits. In particular, it was widely accepted that poor and minority neighbors negatively impacted property values and were less deserving of benefits than property owners and whites. Local policies like zoning and redevelopment serve these ends, and the result has been segregation along race and class lines.

The very first laws generating segregation were adopted in the first decade of the 20th century, to protect both property values and public goods exclusivity. Over the course of the next 100 years, when property owners were stymied in their attempts to create exclusivity by demographic shifts, loss of political control, or meddlesome higher levels of government seeking to promote equality, they adopted new strategies to achieve segregation, often increasing the spatial scale of exclusivity to achieve their goals. For instance, when first industrialization and
then the explosion of war time economies pulled great numbers of working class people of color
to cities, many black and Latino neighborhoods swelled, threatening to spill into white, home-
owner communities. City governments were called upon to use policy levers like land use
regulations, zoning, the placement of thoroughfares and public housing to consolidate, and then
circumscribe minority communities. When state and federal courts ordered desegregation of
communal spaces like parks, golf courses, and swimming pools, local governments again used
control over land use to alter the residential map. In the post-war period, big city governments
became unreliable allies in this pursuit. When the federal court ordered desegregation of schools
and when white owners saw threats to their political power in central cities, they ensured that
suburban governments protected their interests.

The Geography of Inequality

Political geography is comprised of nested units: neighborhoods within wards, wards
within cities, cities within states, and states within the nation. When residential segregation
maps onto political geography, political divisions become fused with race and class divisions.
This has two important consequences. First, segregation generates inequalities between race and
class groups because in a world of scarce resources, the politically powerful deny public goods to
those who are politically weak. Segregation within cities and suburbanization across city lines
has meant that the benefits experienced by racial and ethnic minorities and low-income
individuals are inferior to the benefits experienced by whites and the wealthy. Second,
segregation generates political polarization between race and class groups and ultimately,
inhibits cooperation.

Segregation generates inequalities because it allows political elites to target public goods
toward supporters. At one time, public goods were segregated directly, through laws which
dictated that whites and blacks (and often Native Americans, Latinos, and Asians) could not attend the same schools, sit in the same area on public transportation, utilize the same parks, pools, libraries, or hospitals, be incarcerated in the same facility, or be buried in the same public cemeteries. The legal segregation of public goods allowed city, county, and state governments to provide unequal funding for black and white schools, black and white hospitals, and black and white playgrounds (thereby generating unequal quality). This meant that compared to whites, blacks received inferior public goods than whites regardless of where they lived. But by the middle of the 20th century, public goods inequalities had largely come to be determined by residential segregation instead of directly.

This transformation occurred in part as a response to the 1896 decision *Plessy v. Ferguson* which dictated equality in separate facilities. It was cumbersome and expensive to develop separate and equal services in diverse communities. The duplication of schools, parks, hospitals and cemeteries for black (Asian, Latino, and Native American) and white residents meant higher expenses (CQ Researcher 1947). Such costs arose not only from the establishment of facilities that would not have been needed if the facilities were integrated, but also from the loss of efficiency that the replication of equipment and personnel entailed.

Obviously, these costs were minimized when nonwhite facilities were severely underfunded.
(Myrdal 1944, p342), but in the wake of *Plessy v. Ferguson* and successive lawsuits urging cities toward equal (albeit separate) facilities, residential segregation became an attractive alternative. After the many midcentury court decisions striking down any separate facilities (e.g. Brown v. Board of Education), residential segregation became the only remaining option (CQ Researcher 1947, Kruse 2005). In addition to being constitutional, residential segregation was also an efficient mechanism for producing inequalities across multiple public goods at once.

A similar transformation occurred in the post-war period, as neighborhood level segregation was traded for city level segregation. In 1948, when the Supreme Court ruled restrictive covenants unenforceable in *Shelley v. Kraemer*, white neighborhoods lost one of their most effective means of defense against integration. The 1968 Fair Housing Act further limited white collective action. As technological changes enhanced suburban service delivery and commute possibilities, and as the federal government subsidized homeownership outside of the central city, segregation across city lines rose. Moving outside of city boundaries allowed suburbanites to provide high levels of public goods for their residents without having to pay for services for nonresidents. For the privileged, suburbanization was an even more efficient mechanism of segregation than choosing separate neighborhoods within the city. As Hayward (2009) has argued, suburbs offered the opportunity to, “engage in exclusionary zoning practices…to opt out of supporting public housing…and even opt out of supporting public transportation within the boundaries of their municipalities,” all while allowing suburbanites to, “pool their tax monies…to provide schooling and other public services.” (p149). In addition to offering efficiency, suburbanization also freed residents from having to fight for control of the city government. Indeed, suburban flight was encouraged by a loss of political power in the central city.
In many ways, these inequalities in access to public goods are precisely the goal of segregation’s promoters. But, a second consequence of increasing correspondence between political geography and demographic division, is an increase in political polarization. Within cities, segregation generates stark divides between racial groups, leading segregated cities to underprovide public goods. But, even beyond city borders, segregation is consequential. The process of building and defending white homeowner neighborhoods created new ideological commitments to a meritocratic discourse that depicted inequalities as being the result of the free-market, and choices made by black and poor residents, rather than the result of actions taken by government or white homeowners. The new ideology that was bred in defended white homeowner neighborhoods took root, growing into a modern conservatism that prioritized protection of property, self-reliance, and individual achievement (Self 2003, Lassiter 2006, Kruse 2005). Over the years, this conservatism has persisted, inculcating new neighbors with the same perspective.

Empirical Expectations

The preceding argument generates several broad predictions which I test in various ways throughout the coming chapters. First, I predict that some communities will be more likely to desire segregation than others: these are places that have a taste for segregation and/or have significant resources to protect. These places will be most likely to implement local policies like zoning, urban renewal, and restrictive land use regulations. When communities seeking segregation are thwarted in their ability to generate exclusivity, they’ll seek to change the spatial scale of segregation – moving to exclusive neighborhoods and exclusive cities. Second, I predict that these local policies work to generate segregation along race and class lines. Third, I predict that residential segregation generates inequalities in access to public goods. Finally, I propose
that residential segregation will cause political polarization in both local and national politics. No chapter or time period contains tests of all of these predictions; but together they tell a compelling story. For more than 100 years property owners (and those who derive their livelihood from property) have urged local governments to enact policies that institutionalize segregation along race and class lines to protect their property values and control the distribution of public goods; and I show that they have been incredibly successful.

I find that segregation along both race and class lines has been promoted by white homeowners and land oriented businesses for more than 100 years. Where these interests dominated city government, segregation grew more rapidly. I also find that as segregation increased, service investment in white homeowner neighborhoods increased. As whites lost control over the distribution of benefits, they moved to the suburbs and continued to expand service delivery. Today, a greater share of public dollars is spent by suburbs than by central cities. Finally, I reveal that in more segregated places political polarization is greater and poor and minority residents have access to lower quality public goods.

Important Caveats

Schools (or lack thereof)

This is a book about segregation, and only rarely do I engage a discussion of schools. This will seem a glaring omission to many readers, especially because many pieces of my argument overlap with accounts offered by education scholars. The literature exploring inequality of educational opportunities is extremely dense and well developed (see Reardon and Owens 2014 for an overview). As Stephen Macedo writes, “Local control, when combined with local funding, and district-based assignment of pupils to schools, has created a geography marked by stark inequalities centered on class and race: a new form of separate and unequal”
(Macedo 2003, p743 in “School Reform and Equal Opportunity in America's Geography of Inequality”). The arguments that I advance here compliment and underscore much of this research. One might view this book as an extension of these arguments to the provision of all non-school local public goods.

My focus here is on the various policies that local governments use to generate segregation; and the consequences of segregation for local and national politics. The vast majority of the governments that I study do not play a direct role in the governance of schools or the provision of public education. That is, most cities in the United States do not spend money on educational services; and most public school students (about 85%) attend schools that are governed by school districts not municipalities. One could approach school district politics as I have done for municipalities – analyzing decisions about the drawing of catchment zones, policies on bussing, and the allocation of resources across schools in the same district. But, this would require vastly different data than what I have gathered.

That said, school enrollment and quality plays a major role in individual decisions about where to live. So while I do not analyze the politics of school districts, my argument attempts to take school dynamics into account when analyzing the impetus for segregation. For instance, I use federal desegregation orders to study how segregation changed in the post-war period.

Data Hurdles

The data that I use to reveal the patterns described above differs in important ways from previous research. Most scholars who analyze the determinants of segregation focus either on metropolitan level segregation (e.g. Dreier et al 2004, Jackson 1985) or neighborhood segregation (e.g. Massey and Denton 1993)\textsuperscript{32}; and on racial segregation (e.g. Charles 2003) or

\textsuperscript{32} M.J. Fischer (2008), Reardon, Yun and Eitle (2000), C.S. Fischer et al (2004), and Rhode and Strumpf (2003) are notable exceptions. However, none of these authors analyze the political causes or consequences of segregation.
class segregation (e.g. Bischoff and Reardon 2013) – but these types of sorting are intricately linked. Class segregation and racial segregation are correlated, but they are not identical. Determining both the causes and consequences of segregation requires taking these linkages into account. The data that I have collected measure segregation both within and across cities, they account for both race and class divisions, and cover city expenditures on a wide range of services during the entire 20th century. This required the encoding of archival data, the generation of new spatial data using GIS, and the compilation of thousands of digitized observations from the United States Census. The comprehensiveness of the data allows for a more complete picture of the patterns of segregation over time and allows for an analysis of the factors that give rise to this variation.

I find generally, that I am better able to explain the causes and consequences of racial segregation. In part this is because the data for measuring racial segregation are available for a longer time series and at a finer grain of detail than the data for measuring class segregation. But, the historical record is also clear that exclusion of other races has been a more powerful driver of these processes than exclusion of the poor. This is evidenced by the fact that many neighborhoods contain a mixture of homeowners and renters, as well as varied income levels, even when they are dominated by a single racial group. As a result, racial segregation has always been higher than class segregation. However, today, local policies that generate class based exclusion are generally upheld by courts, while race based exclusion is not. Additionally, income inequality has increased in recent decades. As a result, class segregation has risen and will likely continue to rise, even while racial segregation declines.

Throughout my empirical analyses I face profound causal challenges. In some cases my analysis is plagued by reverse causality: do white residents move to the suburbs because the
central city elected a black mayor, or did the moving of white residents make it possible for a black mayor to get elected? In other cases, my analysis suffers from an inability to disentangle selection from treatment: does living in a homogenous white neighborhood make people more conservative or do people with conservative views move to homogenous neighborhoods? In still other cases, my argument would be aided by evidence of strategy on the part of local elites, but none exists: zoning generates greater segregation, but could this have been an unintended consequence?

In each chapter I describe the hurdles presented by the (lack of) data and my strategies for overcoming them. Generally, I seek to build a case for my argument using both detailed qualitative evidence and quantitative evidence from hundreds or even thousands of places. I often draw on the timing of events for evidence of causality and, where I am able I utilize instrumental variables to underscore my findings.

Contributions to Existing Literature

This book contributes to a number of dense literatures including work focused on segregation, public goods, attitudes toward outgroups, and political inequality. Although a great deal has been written on each of these topics, very little research engages more than one of these areas. For instance, Tiebout’s (1956) seminal article arguing that consumer-voters pick communities which best satisfy their preferences for public goods ignores the role of race, segregation, and inequality in these choices and is silent about the ways in which public goods packages are developed. Other scholars (Alesina et al 1998) show that diversity drives down collective investment in public goods, but do not consider the ways that geo-spatial arrangements might affect this relationship. Still others have shown that whites’ desire for homogeneity has played a role in generating racial segregation between cities and school districts (Reber 2005,
Baum-Snow and Lutz 2011, Boustan 2010). However, these works largely ignore the political mechanisms by which such preferences are realized (e.g. the development of zoning policies).

Outside of (excellent) case studies focused on one to two metropolitan areas at a time (Danielson 1976, Hirsch 1983, Sugrue 1996, Kruse 2005, Lassiter 2006, Kraus 2000), to date most of the research analyzing the relationship between segregation and public policy has focused on national level programs like the Federal Housing Administration underwriting guidelines (Jackson 1985) or the Home Owners Loan Corporation neighborhood investment ratings (Hillier 2005). With such far reaching effects, the focus on these programs has been well placed, but has tended to obscure considerable subnational variation; and while the case studies offer invaluable historical detail, they are unable to provide evidence of broader patterns of the effect of local policies on segregation. In short, while scholars have documented changing patterns in racial and class segregation, they have not demonstrated the ongoing role of city politics and local service policy in creating segregation and growing inequality. I show how patterns of local service delivery, zoning laws, and other local policies not only mirrored patterns of segregation but also very much drove them – not only in the pre-civil rights era, but also in recent decades.

Although many scholars have suggested that segregation across neighborhoods or between cities and suburbs fosters inequalities in access to public goods (Massey and Denton

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33 Baum-Snow and Lutz analyze the effect of school district desegregation orders on suburbanization. So, while they focus on the effect of a public policy, they are not concerned with policies that intentionally aided segregationist preferences.

34 Important exceptions include Rothwell (2011) who analyzes the effect of low density zoning on metropolitan area racial segregation and Dreier et al (2004) who suggest (although they do not provide direct evidence) that zoning and redevelopment affect economic segregation across cities. Cutler, Glaeser, and Vigdor (1999) find support for a theory of “collective action racism” prior to 1970. They show that housing prices for equivalent quality housing were higher for blacks than for whites implying that whites acted collectively to limit black housing choices. However, the authors do not provide any analysis of the types of collective action in which whites engaged beyond speculating that restrictive covenants and racial zoning may have played a role. Importantly, Cutler et al do not distinguish between collective actions that occur in the public versus private realm.
1993, Burns 1994, Dreier et al 2004), very little research offers systematic evidence of this intuition. Other scholars have carefully documented the pernicious effects of segregation on individual level outcomes (Ananat 2011, Cutler and Glaeser 1997), but have not offered a direct link between these outcomes and allocation of public goods. I offer quantitative and qualitative data showing that segregation across both neighborhoods and cities allows governments to disinvest in poor and minority communities and this produces unequal access to public goods. These results help to explain why social mobility is tied to place, as scholars like Sharkey (2013) and Sampson (2012) find, and demonstrate the consequences of public policy and segregation for larger patterns of inequality.

Much of the work investigating the determinants of segregation (both within cities across neighborhoods, and within regions across cities and suburbs) argues or assumes that the important driver of racial segregation is prejudice – that is, attitudinal predispositions toward racial and ethnic minority groups. This is an insufficient account. It is insufficient first because racial segregation has not declined as precipitously as one would predict given dramatic changes in overt expressions of racism. I argue that the institutionalization of prejudice through local public policy makes segregation more rigid. Second, pure prejudice does little to explain the rise of class segregation. I argue that if we understand segregation as a mechanism to protect public goods and property values, increasing class segregation is predictable. Finally, a pure prejudice account leaves unexplored the basis for these predispositions. I argue that beliefs about the acceptability of different demographic groups as neighbors (e.g. what we might take to be pure

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35 An important exception is Troesken (2001) who provides direct evidence of the relationship between segregation and public goods inequalities. He shows that cities with racial segregation were more likely to generate unequal access to municipal water and sewer connections in the late 19th and early 20th centuries.
prejudice) were influenced by the distributions of public goods and battles over those distributions decades ago.

Contrary to some scholars’ conclusion that the core problems of segregation have been alleviated, I show that segregation persists, that segregation has grown across cities, and that government policies continue to play a central role in perpetuating segregation.36 White, wealthy Americans are still trying to segregate themselves. And local governments still tend to invest more toward whites and the wealthy. I build this argument through seven substantive chapters and a conclusion that considers omissions from the book and forecasts the path forward.

Chapter Summaries

In order to orient the study, in Chapter 1, I provide descriptive information regarding changes in segregation and public goods spending over the course of the 20th century. I offer an overview of patterns that will be linked through the chapters that follow. I begin by providing a broad overview of spending between 1900 and 1940. It reveals that cities increased expenditures on street paving and lighting, refuse collection, sewers, libraries, health, education, public safety, and recreation, and increased revenue from taxes. During this early period, cities became modern service providers.

Next, I explore early patterns of race and class segregation. I show that racial segregation increased dramatically between 1890 and 1940 while class segregation increased marginally. It was in the cities with the largest budgets that segregation increased the most. Then, I turn to analyzing fiscal and segregation patterns between 1970 and 2011. I argue that during this period, white property owners turned to suburbanization as their primary mechanism for protecting

36 Several recent headlines make this claim “Glimpses of a Ghetto-Free Future,” “Segregation Continues to Decline in Most U.S. Cities, Census Figures Show,” “The End of the Segregated Century: Racial Separation in America’s Neighborhoods, 1890-2010.”
property values. After 1970 the dominant trend in both race and class segregation was increasing differentiation between cities. During this period, suburban governments grew more intensely than central cities so that by 2011, central cities accounted for a smaller share of total metro area spending than they had in 1970.

In Chapter 2, I provide the first piece of evidence directly linking the patterns described in Chapter 1 by showing that public goods considerations drove efforts to segregate in the early decades of the 20th century. Acting in response to white homeowners and land-oriented businesses, local government policy explicitly sought to exclude people of color from white neighborhoods and poor individuals from wealthy neighborhoods. In empirical analyses I analyze the factors that encouraged the adoption of zoning laws and the role that zoning laws played in the development of race and class segregation. I find that exclusion was most adamantly pursued in cities that had become significant providers of public goods, where property taxes were high (and so, raising property values was attractive), and where political support for Progressive reform was strongest. I supplement this analysis with qualitative evidence that reveals the many factors local governments utilized to promote segregation, including strategies like the siting of segregated public goods such as parks and schools. Finally, this chapter reveals that zoning laws had their intended effect: early zoning adopters segregated more rapidly over the next several decades compared to cities without similar ordinances and zoned cities witnessed greater inequalities in housing values.

Chapter 3 documents the unequal provision of public goods that early segregation allowed. Using historical case study evidence, I show that poor and minority neighborhoods consistently received worse public amenities like road paving, and health clinics. I draw on detailed ward level data from Baltimore, Boston, Chicago, and Philadelphia to show that sewer
extensions were less likely to be built in neighborhoods with higher proportions of African American and renting residents. As a result, inequality in water and sewer access was greater in more segregated places. I show that these inequalities persisted. Using data on all tracts in all cities in the United States, I provide evidence that whites and minorities, and renters and homeowners had differential rates of access to public sewers in more segregated places in 1970, 1980, and 1990. I argue that these inequalities in service provision affected the ways in which white and wealthy residents would come to view poor and minority neighbors. Daria Roithmayr (2014) points out, “we see the strongest evidence of continuing discrimination in housing markets” (p18). This is because the roots of this bias are whites’ conscious and subconscious beliefs about the effect of nonwhite and renter neighbors on property values and the quality of public goods – beliefs that were fostered by government choices at the turn of the 20th century.

Chapter 4 provides evidence of municipal policy effects on segregation in the middle of the 20th Century. By 1940, segregation was entrenched, as were the unequal allocations of public goods. But patterns would change in the post war period. In some places segregation along racial lines increased, while in others it had already begun to decline (as it would everywhere after 1970). Class segregation began a slow ascent and then leveled off. As was the case in the first time period analyzed, local public policy played a role in these patterns. I provide evidence that cities that more vigorously implemented urban renewal programs grew more segregated along both race and class lines. I also show that during the 1960s and 70s, in many cities white homeowners lost the political power needed to police the borders of their neighborhoods and control the distribution of public goods. I argue that such changes made suburban living a more attractive option than living in homogenous neighborhoods within cities.
Between 1970 and 2000, the major change in segregation patterns occurred between cities. That is, neighborhoods became more racially integrated within cities, but whole cities became more racially homogenous. Class segregation across cities also increased during this period. Chapter 5 offers an analysis of the role of local political control in generating these changes. Using demographic and finance data from all metropolitan areas in the United States between 1980 and 2000, I show that larger budgets, higher spending on policing, and minority mayoral victories are associated with more segregation across city lines. Where whites maintained control they were less likely to move to the suburbs. Throughout the postwar period cities and suburbs alike moved away from explicitly racial strategies toward class based tactics, such as large lot zoning and limiting multi-family developments, to ensure segregation. I show that more restrictive zoning by suburban cities increased both race and class segregation. As a result, suburban communities made decisions that profoundly affected non-suburban residents while preventing them from participating in the decision making process. In this context, representative government, policy responsiveness, and political equality became hollow concepts.

In Chapters 6 and 7, I focus on the consequences of segregation for modern politics. In Chapter 6, I analyze the consequences of segregation within cities. Quite ironically given early claims that segregation was the best solution to racial discord, I show that segregation is associated with deep race and class divisions that dominate city politics today. Polarization makes cooperation difficult and, I show that segregated cities have smaller city budgets and spend less on individual categories of expenditure such as roads, policing, parks, and sewers. Underinvestment means that city services do not operate well. Focusing on one measurable area
of public goods provision, I demonstrate that sewer overflows are more frequent in segregated cities.

In Chapter 7, I focus on the effects of segregation for national level politics. I draw on case study and large-n evidence to show that the integration of public spaces and residential areas encouraged whites and the wealthy to move to the suburbs during the postwar period, which allowed for more control over political decisions and the distribution of public goods. Then, I draw on restricted-access General Social Survey data geo-coded to 1970 Census tracts to show that residents who live in neighborhoods that were whiter than the metropolitan area as a whole in 1970 are much more conservative than those who live in more integrated places. I argue that this conservatism is rooted in the battles over integration that occurred in earlier decades.

In the conclusion of the book, I pull the many pieces of evidence presented previously into a single framework and discuss what the future holds. I reiterate my main claim: local governments pursue segregation at the behest of politically powerful interests. This allows politicians to target public goods towards some residents and away from others, resulting in differential access to public goods. Segregation generates unequal political outcomes which in turn, reinforces segregation. By linking neighborhood level segregation to suburbanization, I suggest that preferences for separation have changed in form, but not intent over time. Going forward we can expect additional change. Rather than seeking residential segregation, some individuals will choose to leave the public realm altogether – relying more heavily on private provision of services like education, policing, and park space. We have some evidence that privatization has increased even as many cities have become more integrated. The drive to protect property values, ensure good schools for children, and safe streets for families has
remained a powerful force. In the final section of this concluding chapter I consider some potential policy solutions to these seemingly intractable problems. I suggest that the most promising path forward is to utilize lessons from school finance reform (e.g. Lafortune, Rothstein, and Schanzenbach 2015) to guide state governments’ approach to producing more equal access to a range of local public goods.
Chapter 1: Segregation and Public Goods over the 20th century

At the turn of the 20th Century, cities in the United States experienced intense demographic change. The first waves of African American migrants left the South for Northern communities, and immigrants from Europe streamed across the borders until the onset of World War I and the implementation of restrictive immigration laws. By the middle of the Century, the spatial distribution of residents was markedly different than it had been 50 years prior; and patterns would change again over the ensuing 50 years. Until the onset of the Great Depression, expenditures by local governments also grew rapidly. It was during this period that the foundation for modern urban politics was laid across the nation. This growth in municipal spending continued unabated for the next 100 years, but it was uneven, favoring suburbs at the expense of cities. This chapter charts and links changes in both demographics and service provision in metropolitan America.

I begin with a presentation of data on the growth of expenditures during the first four decades of the 20th century. I analyze demographic correlates of this growth, showing that homeownership, wealth, diversity, and density were all associated with expanding municipal governments. This, I argue, explains why white homeowners and land-oriented businesses pursued residential segregation: to protect property values and capture public goods. Next, I present the changing patterns of race and class segregation for these early decades. I show that cities with greater spending became more segregated. I then turn to an analysis of spending and segregation between 1970 and 2010, concentrating on the effects of suburbanization. I provide evidence showing that the level at which segregation occurred shifted during this time. While neighborhoods within cities became less segregated, cities started to look increasingly different
from one another. As the next several chapters will reveal, the changing level of segregation has had significant implications for the allocation of resources.

**The Rise of Urban America**

In the year 1800, only 5% of the population of the United States lived in cities and approximately 90% of the workforce was tied to agriculture. For the next half century, this figure inched modestly upwards, so that by 1850, 15% of population lived in urban areas. After the end of the Civil War, the pace of urbanization (and industrialization) increased dramatically. By 1900, the nation was 40% urban and in 1920, the Census reported a majority urban nation for the first time. This trend continued; today the nation is approximately 80% urban.

As industrialization advanced, massive demographic shifts accompanied the economic changes. Cities began to fill with migrants and immigrants seeking work in the new factories and service sectors. During this period, most workers commuted to their jobs by foot, limiting the distance residential neighborhoods could be located from places of employment. The result was massive overcrowding – in some cities as early as the first decades of the 1800s. Housing and sanitary capacities became overextended; epidemics and conflagrations were rampant.

O’Connor (1984) offers a vivid description of early 19th century Boston:

> Within the heart of the old city…things had deteriorated badly over the years…Its meandering streets…were hedged in by four and five-story houses that blocked out the sunlight. Pedestrians were in constant danger of being knocked down by stagecoaches, or bowled over by droves of pigs being hustled to market….An abominable stench rose above it all. Not merely the oily fish smells from the docks, the briny tang of salt water, or the sickish odor of the mudflats at low tide. This was the repulsive reek of

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37 The Census determines whether a particular geographical area is urban based on population size and density. Rural territory is any area that is not urban. Starting in 1900, the Census has defined urban areas as all places with at least 2,500 residents. From 1910-1950, urban areas only included incorporated places (e.g. cities) that met the size threshold. In more recent decades, the determination has been a combination of size and density; urban areas contain at least 2,500 people have a density threshold of at least 1,000 people per square mile.
uncontrolled street refuse and untended garbage. To make matters worse, the city’s sewerage system emptied out into the Town Dock… (p80).

Despite the clear benefits of moving away from the center of town, the nature of transportation and the needs of industry meant that even while they grew larger and more diverse, cities in the 1800s experienced low levels of segregation along race and class lines. At this time, the population of urban blacks was heavily concentrated in Southern cities. My dataset includes demographics for 296 cities from the 1900 Census of Population and Housing. These cities housed about 1.2 million black residents; approximately 64% of whom lived in the South. In an early analysis of *The Negro Ghetto* (1948) Robert Weaver explained, “in the cities of the Old South, like Charleston and New Orleans…most of the dwellings occupied by Negroes were either servants’ quarters in the rear of the better houses or shacks on streets where low-income groups of whites also lived,” (p8). In the north, Weaver says blacks “usually lived in clusters in racially mixed neighborhoods,” (p9-10). However, detailed research on New York and Chicago by Logan et al (2015) reveals that although northern blacks did not live in “predominately black neighborhoods”, they did live in “disproportionately black…neighborhoods,” (p1062). What this means, is that while neighborhoods were mixed in the aggregate (thereby generating low measures of segregation), the housing available to blacks and other racial minorities in urban areas, was nonetheless heavily restricted from the start. Yet, because political representation is frequently defined at the neighborhood level, with low levels of neighborhood segregation, blacks and other minorities were likely to benefit from public goods provided to white homeowners.

Until about 1930, “state and local governments were the governments of most Americans” (McDonald and Ward 1984, p14). This was especially true with respect to fiscal
affairs. To the extent that any government would have addressed the negative externalities associated with rapid urbanization, it would have been viewed as the responsibility of the city (and their parent states). Yet, throughout the first half of the 19th century, city governments were fairly limited in scope. The economies of early cities were largely commercial, and a dedication to privatism and the market generally dictated political affairs (Monkkonen 1988, Warner 1968, McDonald 1986). A large and meddlesome government was something to be suspicious of and few cities provided extensive public services. Government was run by (and services were often partially funded by) the wealthy – typically merchants. As Bridges (1984) explains of New York City in 1830s, “it is impossible to determine where government began and noblesse oblige (and the church) ended” (p72).

In most instances, services were handled by volunteers (e.g. fire brigades) or part-time, municipally funded workers (e.g. night watchmen); and while city budgets provided contributions toward these services, city responsibilities were largely focused on regulating access to urban activities (like city markets). But by the end of the 19th century, city governments began to adopt a new orientation toward public goods provision and city leadership began to shift away from wealthy merchants and toward career politicians. As a result, services came to be increasingly funded by city budgets, not charitable contributions. Monkkonen (1988) argues that city goals had been broadened by the 1890s to include:

Protecting private property (firefighting); suppressing crime; controlling behavior in public areas; building and maintaining streets and sewerage systems; aiding the poor, schooling children and sometimes adults; funding public libraries; providing recreation and entertainment; supporting a minimal level of health; temporarily assisting all persons incapable of caring for themselves…; enforcing public morality; expending direct financial aid to private capital…; and constructing not-for-profit public buildings in which to house these activities (p218).
Historians do not agree on what caused the transition from the regulatory approach of antebellum governments to what Monkkonen calls the “service city” by the late 1800s. Yet, with one exception (Brown and Halaby 1984), scholars have not analyzed this development quantitatively in more than a handful of cities. Simply put, we lack systematic, quantitative knowledge of the factors that affected the development and expansion of city government at the turn of the 20th century when significant variation was present. In 1902, for example, the median per capita expenditure of local governments in cities over the size of 25,000 (n=160) was about $11, but the standard deviation was more than a third of that amount ($4). Some cities spent very little providing services for residents, others, a great deal. If city governments were once limited and weak, why did some choose to begin providing services for residents while others lagged behind?

The dominant paradigm is to understand the growth of city government as the necessary response to the negative externalities of increased population growth and density such as pollution, congestion, conflagration, crime, and disease (see for example Griffith 1927, Still 1948, Glaab and Brown 1967, Chudacoff 1975, Anderson 1977, Troesken 2004). Scholars have generally recognized that the capacity to fund such developments through taxation and debt varied widely across cities (Dilworth 2005, Cutler and Miller 2006, Monkkonen 1988).38

Some scholars argue that managing racial and ethnic diversity in growing, compact cities was an essential driver of the development of municipal government. In an analysis of city relief spending in 1929, Cybelle Fox (2012) argues that native-born Americans and social welfare workers sought to Americanize foreign-born populations by drawing them into the reach of government. Tebeau (2003) shows that the development and expansion of fire services was an

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38 Research indicates that prior to the advent of the municipal bond market, cities were largely unable to invest in large infrastructural development.
attempt to confiscate power from ethnic fire brigades, ensuring that firemen would be loyal to the city and not to their group. Similarly, Monkkonen (1988) argues that spending was a mechanism to manage conflict. As cities grew, he says, the bureaucracy of municipal government was invoked to manage conflict and Americanize newcomers as a substitute for small town interactions. In support of this thesis, Brown and Halaby (1984) find a substantial, positive relationship between expenditures and percent foreign born. But contrary to these arguments, Goldin and Katz (2008) show that community homogeneity was key in the expansion of free public schooling. A large literature linking diversity and limited public goods provision underscores this finding (Alesina et al. 1999, Poterba 1997, Vigdor 2004, Hopkins 2009, Habyarimana et al. 2007, 2009, Miguel and Gugerty 2005, Miguel 2004, Algan et al. 2011, Fearon and Laitin 1996). This leaves no clear prediction regarding the direction of the relationship between diversity and spending.

Several accounts emphasize demands made by emerging middle-class residents (Yearly 1970), as views regarding what it was the duty of government to provide evolved (Myrdal 1944). McDonald (1986) suggests that property owners in particular wanted good public services which led to high spending through debt. Others highlight the demands of newly minted professionals engaged in the private provision of services, who would benefit from public funding. Teachers pushed for public education; fire fighters pushed for fire forces (Katznelson and Weir 1985, Tebeau 2003). Along these same lines, Monkennen (1988) highlights the growing role of planners, real estate developers, and professional bureaucrats who helped to build the Progressive reform movement (see also Hays 1964, Bridges 1997, Tretter 2012 on Progressivism and growth).

City Spending Data
To provide a description of historical expenditure patterns, I use a new dataset built from a number of government sources that includes data from the turn of the century to the Second World War. Starting from 1902, the Bureau of the Census has been responsible for collecting data on the finances of local governments. With a few exceptions, the data have been collected annually for cities that meet a particular population threshold (which has varied over time). The Federal Reserve Archive (http://fraser.stlouisfed.org/) has digitized copies of the paper Census reports up until the year 1941, and I encoded a series of relevant variables from these digital reports at five year intervals. Thus, I have fiscal data from 1902, 1907, 1912, 1917, 1923, 1927, 1932, and 1937, as well as other governmental data from a number of early special Census reports. I encoded socioeconomic data from the Census of Population and Housing in 1900, 1910, 1920, 1930, and 1940. In order to be able to analyze the diversity of the population, I gathered data on the country of origin for all of the foreign born residents in each city. Details on the coding of foreign born groups are included in the appendix. Linear interpolation was used to create intercensal estimates for all of the socioeconomic variables. In my largest sample, I have a total of 1,397 city-year observations, which includes data from 262 cities.

39 The five year interval was selected to match the interval that the Census of Government used starting in 1952. From 1902-1903, the report was entitled “Statistics of Cities Having a Population of over 25,000.” From 1904-1908, it was entitled “Statistics of Cities Having a Population of over 30,000.” From 1909-1931, it was entitled “Financial Statistics of Cities Having a Population of over 30,000.” From 1932-1941, it was entitled “Financial Statistics of Cities Having a Population of over 100,000.” Collection of data on local governments was spotty between 1942 and 1952. The Census resumed regular collection of data at five year intervals starting in 1952.

40 The report produced in 1922 was limited to very basic data and lacked many of the variables of interest. The 1923 report was used instead.

I begin with an analysis of total *Per Capita City Expenditure* as the dependent variable. All data are shown in real (2012) dollars to make comparison to the modern period more straightforward. As Figure 1.1 shows, development of municipal budgets was rapid over this time period. The graph displays the population-weighted mean of per capita total expenditure, plotted against time for all cities that had more than 30,000 residents in 1902. Tables 1.1 and 1.2 show inflation adjusted (but unweighted) mean per capita spending and revenue on various categories over the same time period.

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42 This measure includes all general expenses, expenditures on interest, and outlays for the municipal corporation.
The figure and tables reveal that during this period, city expenditures grew across the board. In every category, from sanitation to safety, from health to highways, American cities became modern service providers. Spending slid back during the time of the First World War and the Great Depression, but otherwise followed a steep upward trajectory. Over the next 70 years, growth continued. In 2012, per capita spending was literally 10 times what it had been in 1902. Yet, even at the start of the period, growth was uneven.

Figure 1.2 shows histograms of a number of different public goods that were provided by cities in 1902, including the share of total street miles that were paved, the number of street lights per acre, water main miles per acre, sewer miles per acre, park acres per acre, and
patrolmen per capita. All of the distributions are widely spread. Clearly, significant variation existed.

**Figure 1.2: Municipal Public Goods 1902**
To analyze the correlates of expenditure, I regress the natural log of inflation adjusted Expenditures Per Capita on several variables intended to capture explanations offered in the historical literature. Many scholars have argued that cities responded to pressing needs as they arose. For instance, Glaab and Brown (1967) argue that industrialization and population growth generated demands that were fulfilled by city government. While my dependent variable is measured as per capita spending, it is still possible that large and/or dense cities may have required higher levels of spending (if, for example, fires or diseases were more likely to spread in such places). Monkkonen (1988) argues that the need for social control through bureaucratization was greatest in large cities. Alternatively, large cities may have benefitted from returns to scale, and therefore may have been able to provide services for a lower cost. To test for these possibilities, I include a measure of the Total Population (logged) and Density (total population divided by total acres).

The analyses also include two different measures of diversity. The first is the share of all residents that were classified as Nonwhite by the Census of Population and Housing. During this period, racial categorization was in flux (Roediger 2005) and the determination of race was made by Census takers (Nobles 2000). However, generally speaking, the Nonwhite category included Blacks, Asians and Asian Americans, Native Americans, and sometimes Mexican/Latin Americans. Persons of mixed race were typically identified as nonwhite.

The second measure of diversity is a Herfindahl Index:

\[
\text{Diversity} = 1 - \sum_{f=1}^{F} \pi_f^2
\]

where, \(\pi_f\) is the population share of the foreign-born group \(f\) and \(F\) is the total number of foreign-born groups. There were 52 different foreign-born groups recorded by the Census during this
period (listed in the appendix), and the resulting diversity index ranges from a low of 0.23 to 0.94, with a mean of 0.84.\textsuperscript{43} This illustrates that the foreign-born population in the United States was extremely diverse.

As explained above, property owners were among the most supportive of investing in new services (McDonald 1986). However, scholars also report a general tendency among the populace to rail against high taxes and profligate spending of city governments in the late 19\textsuperscript{th} and early 20\textsuperscript{th} centuries (Bridges 1984). According to Monkkonen (1988), this belief was particularly pronounced among property owners. To investigate the role of support for spending among owners, I include the proportion of housing units occupied by \textit{Home Owners}. To measure the wealth of the community I include the \textit{Assessed Value} of all property in the city. McDonald (1986) provides compelling evidence that this measure accurately captures the level of economic development in the city – which should correlate positively with ability to fund city services.\textsuperscript{44} Finally, to capture the argument that the development of city services was driven by the emerging professional class (including land developers and planners), I add the share of adults employed as \textit{Professionals}.\textsuperscript{45} Because I have missing data on a number of variables, I begin with a presentation of the results using only density and population as independent variables. I then add the remaining variables iteratively. Summary statistics for all variables are in appendix Table A1.1.

\textsuperscript{43} Making these categories comparable across censuses required some recoding. For instance, in 1930 and 1940, Irish immigrants were separated by Northern and Southern Ireland. I combined these categories to make the data comparable to the 1900, 1910, and 1920 censuses, which included only one category for Ireland.

\textsuperscript{44} However, McDonald (1986) finds that when assessed value rose in San Francisco, politicians tended to lower tax rates, perhaps resulting in little difference in expenditure.

\textsuperscript{45} The other occupational categories coded by the Census during this period were trade, manufacturing, domestic work, and agriculture. In 1900, the category professionals included actors, architects, artists, clergymen, dentists, electricians, engineers and surveyors, journalists, lawyers, literary and scientific persons, musicians, government officials, physicians, teachers, and other professionals.
These variables are admittedly insufficient to capture all of the important differences across cities during this period. So, rather than attempt to explain variation across cities, I pursue a more modest goal – to describe variation within cities over time. To do so requires that I use a city fixed effects model for the analysis. This strategy overwhelms much of the variation present in the data, but it allows for a more precise estimate of the effect of each of these contextual variables on spending. Table 1.3 presents the results.
Table 1.3: Factors Affecting City Wide Expenditure

|                                  | β    | Std. Err | P>|t| | β    | Std. Err | P>|t| | β    | Std. Err | P>|t| |
|----------------------------------|------|----------|------|------|----------|------|------|----------|------|------|
| Population (log)                 | 0.520| 0.037    | 0.000| 0.329| 0.047    | 0.000| 0.263| 0.051    | 0.000|
| Density                          | 0.016| 0.004    | 0.000| 0.013| 0.004    | 0.001| 0.01  | 0.004    | 0.011|
| % Nonwhite                       | 0.838| 0.412    | 0.042| 0.821| 0.409    | 0.045| 0.702| 0.326    | 0.031|
| Foreign Born Diversity           | 0.893| 0.322    | 0.006| 0.702| 0.326    | 0.031| 0.005| 0.003    | 0.138|
| Assessed Value ($100 mill)       | 0.005| 0.003    | 0.104| 0.005| 0.003    | 0.138| 2.030| 0.423    | 0.000|
| % Home Owners                    | 2.672| 0.385    | 0.000| 2.030| 0.423    | 0.000| 3.197| 0.934    | 0.001|
| % Professionals                  |      |          |      |      |          |      |      |          |      |
| Constant                         | 0.045| 0.421    | 0.961| 0.332| 0.481    | 0.49 | 1.275| 0.559    | 0.023|
| N                                | 1,397|          |      | 1051 |          |      | 1040 |          |      |
| Number of Cities                 | 262  |          |      | 173  |          |      | 169  |          |      |
| R² within                        | 0.175|          |      | 0.301|          |      | 0.315|          |      |
| R² between                       | 0.064|          |      | 0.077|          |      | 0.112|          |      |
| ρ                                | 0.681|          |      | 0.606|          |      | 0.567|          |      |

Note: Fixed effect for cities included, but not presented
The regression reveals that the factors identified by historical research do correlate with expenditures. Cities that were more diverse (either having more nonwhite residents or a diverse foreign-born population from many different places) spent more money. Those places with large, dense populations witnessed higher spending per resident. In an alternate analysis, I add the number of fires per capita that the city experienced in 1902 and 1907. This variable is powerful. Increasing from the 25th to the 75th percentile (from 3 to 5 fires per 1000 people each year), increased spending by $50 per resident. Cities were clearly responding to the negative externalities associated with urbanization. Finally, cities with more capacity and demand (higher property values, more homeowners, and more professionals) also had larger budgets. These results are shown graphically in Figure 1.4. Figures show the marginal effect of each independent variable, holding all other variables at their mean value.
Figure 1.4: Factors Related to Expenditure in Cities, 1902-1937

- % Non-White
- Foreign Born Diversity
- Density
- Population
- % Owners
- Assessed Value ($100 mil)
In this book, I argue that white, homeowners sought to institutionalize the residential segregation of poor and minority residents in order to protect their property values and control the distribution of public goods. They were supported in this pursuit by land-oriented businesses. The pattern of relationships presented in Table 1.1 and Figure 1.4 begin to explain this impetus – particularly the positive correlation between property ownership, assessed value, percent professionals, and municipal expenditures. Holding all other variables at their means, a city that was in the 25th percentile of home-owning, assessed value, and professionals (30% owners, $43 million in assessed value, 6% professionals) spent about $378 per resident. A city in the 75th percentile of all three measures (45% owners, $218 million in assessed value, 10% professionals) spent about $588 per person.

These relationships were circular. Local service provision was understood to increase the value of property. It was for this reason that the property tax was thought to be the most appropriate avenue for supporting local expenditures, as owners would be able to “recoup at least part of the levies in the form of higher real property worth” (Benson and O’Halloran 1987). Thus, property owners sought high levels of municipal services, which were expected to bring both direct benefits (from having access to clean water, paved streets, reliable fire-fighting, etc.)
and indirect benefits through increases in property values. In turn, cities expected owners to fund public goods. Yet, even in the early 20th century, owners were prone to believing that city governments were wasteful and they often opposed increases in taxes. Residents wanted high quality services, but were loath to pay for them.

Property owners’ orientation toward both government and services was related to the emerging understanding of who should benefit from publicly-funded improvements (Myrdal 1944). The cities with the fastest growing service provision were also cities with high levels of racial and ethnic diversity. As Tretter (2012) explains, growth in municipal service provision operated “within a framework of white supremacy” (p10). Controlling who accessed the new benefits was of utmost importance. During this period, the vast majority of blacks, Asians, and Latinos lived in places where they lacked the right to vote; and everywhere, foreign-born residents had to be naturalized before participating (Keyssar 2000). Thus, the preferences of these groups hardly played a direct role in formation municipal policy. A white voter living in Birmingham in 1902 could be certain that no matter how much money the local government raised in taxes, black residents would have little say in how that money was spent. The same was true for a San Franciscan thinking about his Chinese neighbors and for an El Paso resident concerned with Mexicans in his city (Myrdal 1944, Chen 2000, Fox 2012). However, most public goods provided by cities were not targetable to individuals.46

When municipal governments provide streetlights and sewers, even those ineligible to vote benefit from these services. But, residential segregation could limit equality of access. Segregation made targeting services – at least to groups, if not individuals – easier. As will be

46 Municipal jobs, particularly when distributed as patronage, are an exception to this statement. However, despite early accounts to the contrary, the presence of political machines actually depressed spending (Trounstine 2008, Fox 2010, Brown and Halaby 1984). Thus, it appears to be the case that growth in municipal governments has never really been driven by the logic of patronage.
shown in detail in the chapters to come, segregation allowed city governments to collect taxes from poor and minority residents, but underprovide services to them – thereby holding down the total tax bill. Oates (1981) explains that for many important local services such as education and public safety, the characteristics of residents are more important in determining the quality of the public good output than budgetary contributions. Thus, the generation of race and class segregation via policy enacted by local governments (such as zoning or urban renewal), was, in and of itself, a mechanism to improve municipal service provision. Segregation also ensured that the presence of poor and minority neighbors would not threaten property values. As the chapters ahead will show, it was in those places where city spending was high that segregation was institutionalized through local public policy; such institutionalization was pursued most adamantly by white owners and developers of property.

**Explaining and Measuring Segregation**

The high level of residential segregation in America has been tremendously well-documented (see Charles 2003, Ross 2008, and Boustan 2012 for extensive literature reviews). A smaller, though still well-developed, body of literature is focused on class segregation (see Bischoff and Reardon 2013 and Jargowsky 1996 for reviews). The debate over the fundamental causes of segregation is extensive and nuanced. Scholars have focused on two primary explanations: individual preferences for same race/income neighbors (particularly among whites and the wealthy) and market explanations (e.g. differences in the socioeconomic status of different racial groups and the ability to pay for quality housing/transportation among the poor).

Research on racial segregation largely concludes that the driving force behind residential separation is white preferences for same race neighbors (Cutler et al. 1999, Bayer, Ferreira, and
McMillian 2007, Charles 2006). Boustan (2010) finds that in northern metropolitan areas, between 1940 and 1970, every black arrival from the South was associated with 2.7 white departures to the suburbs. Several scholars show that differences in socioeconomic characteristics such as education, income, wealth, and family structure cannot fully account for segregated living patterns for blacks, but does explain a fair amount of the segregation of Latinos and Asians (Bayer et al. 2004, Erbe 1975, Massey and Denton 1987 and 1993, Iceland and Wilkes 2006). Logan summarizes by explaining that racial segregation for blacks is due to the inability to “translate higher income…into residential mobility” (Logan 2011 p15).

Several scholars find that income inequality is an important driver of economic segregation (Bischoff and Reardon 2013, Watson 2009). Others concentrate on selection. Alesina et al. (2004) show that people are willing to give up economies of scale in order to avoid being in a jurisdiction with significant income heterogeneity and Bayer, Ferreira, and McMillian (2007) reveal that households self-segregate on the basis of education.

The links between race and class segregation also form a considerable literature. Some scholars like Denton and Massey (1991), Krysan et al. (2008), and Emerson, Chai, and Yancey (2001) find that whites avoid black neighbors because they are black, while others like Ellen (2000), Yinger (1997), Taub et al. (1984), and Harris (1999) argue that whites use black neighbors as a proxy for neighborhood quality. That is, whites do not avoid black neighbors per se, but rather choose what they perceive to be better neighborhood amenities or neighbor characteristics like wealth.

With only a handful of exceptions (e.g. Rothwell 2011, Pendall 2000), quantitative research on the causes of segregation ignores the political context in which it occurs. Local

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47 A small amount of scholarship shows that black preferences for same race neighbors contributes to segregation (Bayer, Ferreira, and McMillan 2007, Fossett 2006)
policies and political battles are crucial for understanding how white/wealthy preferences for homogeneity and socioeconomic inequalities are translated into residential patterns. To be sure, scholars have extensively documented the private mechanisms by which these factors affect segregation (e.g. via racial steering, mortgage discrimination, and willingness to pay for homogenous neighborhoods). But even private mechanisms may be shaped by local policies and political concerns. For example, I argue that white beliefs about available amenities in poor and minority neighborhoods are, in part, the product of under provision of public goods early in the 20th century. Cutler et al. (1999) find that these beliefs contribute to whites’ willingness to pay higher housing prices in whiter neighborhoods. In the next section, I provide the first piece of evidence for this argument. Segregation is correlated with city expenditures – places that provide more services are also more segregated.

There are many different ways to measure segregation (e.g. the degree to which groups are disproportionately distributed across geographic space). Indices of segregation are typically correlated with each other, but capture different theoretical dimensions of separation and so, measure different things (Massey and Denton 1988). The two most commonly used measures are the index of dissimilarity and the index of isolation which can be intuitively interpreted respectively as the proportion of a racial group that would need to move neighborhoods in order to generate an even racial distribution given the racial makeup of the larger community, and the racial makeup of the neighborhood in which the typical member of the racial group lives. While these are obviously meaningful dimensions of segregation, neither measure includes the most relevant information from a political perspective. In politics, what matters is not just how individuals from different racial groups are distributed across neighborhoods, but also how large each racial group is relative to others and how big of an impact each neighborhood might have.
on the vote. That is, we need a measure that weights diversity by group size and weights evenness by population size. The $H$ index developed by Theil (1972) meets these criteria.

Theil’s $H$ Index measures the difference between the diversity of the city and the weighted average diversity of individual neighborhoods. Diversity scores for each neighborhood and the city as a whole are influenced by the relative size of racial groups, while the overall index is influenced by the relative size of each neighborhood, giving more weight to larger than to smaller places. Both types of weighting are key to understanding the political implications of segregation. We should expect the effect of segregation to be most pronounced when minority groups are unevenly dispersed across geographic units and represent a substantial share of the population.

Theil’s $H$ has a number of other useful qualities. Importantly, for understanding city politics, Theil’s $H$ can be calculated for more than two groups at a time (unlike either the dissimilarity or isolation indices). Additionally, it is the only index that obeys the principle of transfers in the multi-group case - the index declines when a minority resident (theoretically) moves to a neighborhood with fewer minority residents (Reardon and Firebaugh 2002). Finally, as will be discussed in the next section, Thiel’s $H$ is additive and can also be aggregated to higher levels or decomposed into its constituent parts.

Theil’s $H$ Index is built from Theil’s entropy score which is a measure of diversity itself

$$E = \sum_{r=1}^{R} (\pi_r) \ln \frac{1}{\pi_r}$$

where $\pi_r$ represents the proportion of the population in racial group $r$ (or class group $r$ if the index is measuring class segregation). The higher the entropy score, the more diverse an area
The score ranges between 0 and the natural log of the total number of groups \( R \). It is maximized when individuals are evenly distributed among the different racial groups (e.g. when

\[
\pi_r = \frac{1}{R} \text{ for all } r
\]

Entropy is calculated for each neighborhood individually and for the city as a whole.

The \( H \) Index measures the degree to which the diversity in each neighborhood differs from the diversity of the city as a whole, expressed as a fraction of the city’s total diversity and weighted by the neighborhood’s share of the total population.

\[
H = \sum_{n=1}^{N} \frac{P_n}{P_c} \left( \frac{E_c - E_n}{E_c} \right)
\]

Where \( P \) represents total population of neighborhood \( n \) or city \( c \) and \( E \) is the entropy of \( n \) or \( c \). \( H \) varies between 0, where all neighborhoods have the same composition as the entire city, and 1 where all neighborhoods contain only one group. This \( H \) Index serves as a key outcome to be explained throughout the book.

The dataset that I constructed to measure segregation is built from a number of different sources. The calculation of the \( H \) Index requires data on population characteristics at the sub-city level. Cutler et al. (1999) digitized sub-city demographics on race and immigration for 178 different cities from the 1890-1950 Censuses. To this, I add available data that I encoded on homeownership from the 1900 Census and data from the Elizabeth Mullen Bogue files (1975) on

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48 Where any group’s share of the population is 0, the natural log is set to zero, as is the convention in the literature (Iceland 2004).
49 A scatterplot relating a white/nonwhite calculation of \( E \) to percent white is included in appendix Figure A1.1.
50 In all analyses, neighborhoods are represented by Census tracts, which are relatively stable, contiguous geographic areas containing approximately 4,000 people. Most studies of segregation (e.g. Massey and Denton 1993) use Census tracts as a proxy for neighborhood (although this is not without debate, see for instance Logan et al. 2015).
homeownership from the 1940 census. For the 1970-2000 Censuses, I rely on a product developed by GeoLytics called the Neighborhood Change Database (NCDB). The NCDB matches and normalizes Census tract boundaries for each Census year, allowing for direct comparison in demographic changes across time. Finally, I add data from the 2007-2011 American Community Survey. These data allow me to create a panel dataset measuring segregation at the Census-tract level for cities and metropolitan areas for more than 100 years.

Figure 1.4 plots the distribution of racial segregation scores in 1890 and 1940, using data for the 80 cities with populations of at least 25,000 and with at least 1,000 blacks as of the 1890 Census. In 1890, racial segregation patterns were similar from place to place, and generally fairly moderate – although higher than some historical analyses indicate (Cutler et al. 1999). Both features had changed substantially by 1940.

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51 The data from 1900-1940 are collected at the ward level (political units for electing city council members). Starting in 1940, the Census published tract-level data for some cities. Wards tend to be larger in area than tracts and therefore, suggest a smaller value of the segregation index without actually representing a lower level of segregation. To account for this, I adjust all ward-level estimates by a correction factor calculated using a set of 47 cities that reported both ward and tract-level data in 1940.

52 For all figures presented in this chapter, the two groups used to calculate the $H$ index are whites and all others for years 1890-1970. For 1980-2011, the groups are non-Hispanic whites and all others. Throughout the book, I calculate the $H$ Index by tract-city-county-msa (Metropolitan Statistical Area). This means that cities which cross county lines end up with multiple observations. This is necessary because Census tracts are nested within counties – not cities. When presenting any analysis at the city level, I use the observation representing the largest share of the city population.
Figure 1.4: Neighborhood Racial Segregation in 1890 and 1940

Note: The white/nonwhite $H$ index for 1890 is calculated using wards as the base population unit with an additional correction factor to make the data comparable to tract-level estimates. The $H$ Index for 1940 is calculated at the tract level where available and at the ward level otherwise. Data provided by Cutler et al. (1999) and Bogue (1975).

In all but a handful of cases, neighborhood-level racial segregation rose between 1890 and 1940 – on average rising 0.15, a change of about 65%. But the standard deviation is large at 0.13; some cities segregated much more intensely than others. There are many ways to consider measuring class segregation. Throughout the book I use two measures – the distribution of renters versus homeowners, and the concentration of households in the top income threshold. The correlation between owner and wealth segregation is about 0.60. I rely primarily on the former measure for two reasons. First, it is available for the entire time period. More importantly, the existing scholarship indicates that it is property ownership – not wealth – which is the more important driver of local political participation and preferences (Fischel 2000, Oliver and Ha 2007). The downside of this measure is that, at an aggregate level, it is very resistant to

53 The Census reports income categorically, not continuously; wealthy refers to the number of families in each Census tract with incomes above particular thresholds for each Census year. I use family as opposed to household income because the NCDB does not report household income at the tract level. The thresholds were determined by calculating the average family income for all Census tracts in the United States for each Census year. The wealthy threshold represents the income bin with a starting point closest to the 90th percentile of this distribution. The thresholds for each census year are: $35,000 for 1980, $75,000 for 1990, $100,000 for 2000, and $150,000 for 2011. All families with this amount of income or more are categorized as wealthy. Census tracts range from 0 to 100% wealthy, with a mean of 18%, a median of 13%, and a standard deviation of 16%.
change as the housing stock changes more slowly than demographics. Wealth segregation is a more straightforward measure of the residential divisions along socioeconomic lines, but it is only available starting with the 1970 Census and is less directly affected by city policy.

To demonstrate change over time, Figure 1.5 presents data on the renter/homeowner distribution within cities. This figure reveals that class segregation started off much lower and was more consistent from city to city as compared to racial segregation, and increased a small amount (0.037) between 1900 and 1940.

**Figure 1.5: Neighborhood Class Segregation in 1900 and 1940**

To determine how segregation correlates with expenditure in the pre-war period, I add to the segregation dataset the measure of *Logged Expenditures Per Capita* described in the previous section. Because segregation data are measured every decade, and expenditures in years ending in 2 and 7, I interpolate spending data. I then lag spending by five years under the assumption that demographic sorting takes time to respond to budgets. I regress *Racial Segregation* and *Renter Segregation* on the lagged *Expenditures* variable. As in the previous section, I add fixed effects for cities. This fixed effect model analyzes the relationship between lagged expenditures and racial segregation over time within cities. This accounts for variation across cities on all other dimensions that might affect segregation and spending.
### Table 1.4: Correlations Between Spending and Segregation

<table>
<thead>
<tr>
<th></th>
<th>Racial Segregation</th>
<th>Renter Segregation</th>
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<tbody>
<tr>
<td></td>
<td>β</td>
<td>Std. Err</td>
</tr>
<tr>
<td>Expend. Per Capita, 5 year lag (logged)</td>
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<td>0.010</td>
</tr>
<tr>
<td>Constant</td>
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<td>0.059</td>
</tr>
<tr>
<td>N</td>
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<td>179</td>
</tr>
<tr>
<td>Number of Cities</td>
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</tr>
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<td>R² within</td>
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</tr>
<tr>
<td>R² between</td>
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<td>0.010</td>
</tr>
<tr>
<td>ρ</td>
<td>0.802</td>
<td>0.931</td>
</tr>
</tbody>
</table>

Note: Fixed effect for cities included, but not presented.

The results, presented in Table 1.4, indicate a positive correlation between spending and segregation. The R² suggests that about 30 to 40% of the variation in city segregation levels can be explained by variation in the budget. Places with larger budgets were more segregated five years later compared to cities with smaller budgets up until the Second World War. For a host of reasons, this relationship would change going forward.

**Suburbanization – Another Form of Segregation**

Teaford (1979) argues that two conflicting forces animated city development in the late 19th and early 20th century. On the one hand, socioeconomic diversity generated an impetus for separation. As early as the mid-1800s, “the urban population was resolving itself into separate geographic spheres – factory zones, ethnic neighborhoods, upper-middle-class retreats, race track havens – and each zone sought local self-government as a means of protecting its own particular interests” (Teaford 1979, p23). This separation, Teaford shows, led to the explosion of newly incorporated municipalities. But, over the course of the next 50 years, many of these tiny new cities consolidated and/or were annexed into larger central cities for one primary reason: the provision of city services. Prior to 1900, suburban governments were simply unable to provide the quality of sewers, clean water, paved streets, uniformed police forces, and fire-fighting that...
was available in the central city. As a result, as cities became more diverse, the forces of separation pulled people into different neighborhoods, but not into different cities.

However, in the period following the Second World War, America began to suburbanize rapidly (Rappaport 2005). Scholars have detailed the role that automobile accessibility (Glaeser, Kahn, and Rappaport 2008), highway construction (Nall forthcoming), federal programs encouraging home ownership (Jackson 1985), changes in the building industry, and rising incomes (Margo 1992) played in the growth of suburbs. The vast majority of people who arrived in the bucolic, grassy, neighborhoods filled with single-family homes were whites with incomes slightly (although not dramatically) higher than the median income of the central city (Cutler et al. 1999, Winsberg 1989). By about 1940, many larger suburbs were able to compete with central city service provision, thus increasing the attractiveness among residents, industry, and business to move away from the center. As Teaford (1979) explains, “while the forces encouraging unity were weakening, the forces of separatism and disunion remained powerful” (p84). Thus, in the middle of the century, central cities stopped growing politically and suburbs arose as powerful actors in the metropolitan universe (Teaford 1979, Danielson 1976, Miller 1981, Burns 1994). In 1970, more than half of all metropolitan area populations lived outside of the central city; a figure that would grow to two-thirds over the next 30 years. The rise of suburbs decoupled residential spaces from job spaces, and encouraged suburban residents to prioritize neighborhood amenities and property values in political decision making (Teaford 1979, Fischel 2004).

As they moved outside of the central city, suburbanites sought to protect their investments (high quality public goods and property values) in much the same way as their predecessors had – by institutionalizing segregation through public policies like land use
planning and zoning. Thus, the impetus toward separation in the latter half of the 20th century played out across, rather than within, city lines. The level of segregation is of crucial importance to politics. When cities are not segregated by neighborhood, district representation ensures that all residents within a particular location are likely to be provided similar services. When a district councilor wins a public park for his neighborhood all those who live nearby benefit. As the level of segregation shifts from blocks to neighborhoods, residents are more likely to lose representation. Still though, when segregation occurs across neighborhoods within cities, it is possible for residents of segregated neighborhoods to affect the delivery of municipal services through the political process. If a heavily minority neighborhood lacks a public park, residents from this neighborhood might mobilize to try to elect a mayor or city council member who is responsive to their demands. But when segregation occurs across cities, heavily minority cities have no ability to affect the distribution of public goods from neighboring white towns.

To understand how segregation patterns have changed over time, I compiled a measure of segregation that accounts for segregation both within cities and across them. In order to do this, I build on the measure of segregation presented in the previous section – Thiel’s $H$ Index. Thiel’s $H$ is suited to this purpose because it is perfectly additive for nested geographies (Reardon and Firebaugh 2002, C.S. Fischer et al. 2004). In my case, census tracts are nested within cities, and cities are nested within metropolitan areas. Residents can be segregated in two ways – across neighborhoods within cities, or across cities within metropolitan areas. My measure combines these two types of segregation.

As explained above, the $H$ Index measures the degree to which the diversity ($E$) of subunits differs from the diversity of a larger unit. For each Census year, I calculate $H$ Indices at the two levels that are of interest – within cities and across cities. Respectively, these measure
the extent to which Census tract diversity differs from city diversity \((H_{c,t})\) and the extent to which city diversity differs from metropolitan area diversity \((H_{m,c})\). \(^{54}\)

\[
H_{c,t} = \sum_{t=1}^{T} \frac{P_t}{P_c} \left( \frac{E_c - E_t}{E_c} \right)
\]

\[
H_{m,c} = \sum_{c=1}^{C} \frac{P_c}{P_m} \left( \frac{E_m - E_c}{E_m} \right)
\]

Where \(P\) represents total population of the tract \(t\), city \(c\), or metropolitan area \(m\), and \(E\) represents the entropy of the geography \((E = \sum_{r=1}^{R} (\pi_r) \ln \frac{1}{\pi_r})\).

I combine the two indices to produce a total \(H\) Index for the metro area calculated at the tract level, \(H_{m,t}\).

\[
H_{m,t} = \sum_{t=1}^{T} \frac{P_t}{P_m} \left( \frac{E_m - E_t}{E_m} \right) = H_{m,c} + \sum_{c=1}^{C} \left( \frac{P_c}{P_m} \right) \left( \frac{E_c}{E_m} \right) H_{c,t}
\]

To illustrate the two levels of segregation, Figure 1.6 provides images from a map of the population developed by Dustin Cable for the Weldon Cooper Center for Public Service at the University of Virginia. The map includes one dot for each person in the United States as of the 2010 Census, color coded by race (blue for white, green for African American, red for Asian, and orange for Latinos). \(^{55}\)

\(^{54}\) Census tracts are perfectly nested within states and counties. However, in some cases, tracts cross city lines. In these cases, GeoLytics assigned the tract to the city containing the largest share of the tract population. In 2011, tracts are weighted by the share of population contained in each city. Observations are unique when defined by year, tract, city, county, and metropolitan area. Tracts located in unincorporated areas within a metropolitan area (even if they are denoted as places by the Census) are combined as a single unincorporated unit. Tracts outside of metropolitan areas are not included in the analysis. I use Metropolitan Statistical Areas and where possible, Primary Metropolitan Statistical Areas, as the highest level of aggregation (not Consolidated Metropolitan Statistical Areas which are much larger).

\(^{55}\) Available at [http://demographics.coopercenter.org/DotMap/index.html](http://demographics.coopercenter.org/DotMap/index.html).
The upper panel shows Chicago, Illinois – a city in which whites are segregated from nonwhites in different neighborhoods (indicating a high amount of segregation across tracts within the city, $H_{c,t}$). The bottom panel shows a section of the Detroit, Michigan metropolitan area where racial sorting is much more prevalent across city lines as opposed to within them (indicating a high value of $H_{m,c}$).
Chicago, Illinois: Segregation within a City
The maps make it clear that white and nonwhite residents of Chicago live in homogenous neighborhoods. Overall, the city is very segregated. The value of $H_{c,t}$ in 2011 for Chicago was 0.379; the value of $H_{m, c}$ (total segregation across cities) for the Chicago metropolitan area was 0.192. In the bottom panel, the neighborhoods within the cities of the Detroit metropolitan area are much more homogenous. The stark horizontal divider between the blue and green dots is 8
Mile Road which marks the boundary between Detroit and the neighboring city of Warren. A similar vertical division can be found on the right hand side of the picture, noting the boundary between Detroit and the cities of Grosse Pointe, Grosse Pointe Park, Grosse Pointe Farms, and Grosse Pointe Shores. The value of $H_{c,t}$ (within city segregation) in 2011 for Detroit was 0.220, while the value of $H_{m,c}$ for the metropolitan area was 0.395.

How has metropolitan area segregation changed over time? The top panel of Figure 1.7 shows total metropolitan segregation measured at the tract level ($H_{m,t}$) since 1900, while the bottom panel shows the share of that segregation that was accounted for across cities rather than within them ($\frac{H_{m,c}}{H_{m,t}}$) from 1970-2011.

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56 The maps are shaded based on population density, hence the darker colors in Chicago.
Figure 1.7: Changing Metropolitan Segregation Patterns

These figures reveal that by 1970, racial segregation had peaked and begun to decline, while class segregation began a slow ascent. Between 1970 and 2011, in nearly every
metropolitan area in the United States, neighborhood segregation was exchanged for city level segregation along both race and class lines. The figures also show that historically, class segregation was much lower than racial segregation, but by 2011, the indices had converged substantially. The relationship between race and class segregation also increased over time. In 1990 (the earliest date for which I have data on all 330 metropolitan areas), the correlation between race and renter segregation was 0.19. It rose to 0.32 in 2011. The correlation between race and wealth segregation increased from 0.46 to 0.51 over this same period. The link between race and wealth segregation across city lines is even stronger; it was 0.70 in 2011. This tightening link between race and class is driven by changes in both race and class segregation, both within and across cities. However, these remain distinct demographic patterns.
Chapter 2: Local Government Action Contributes to Segregation 1900-1940.

Segregation along both race and class lines grew in tandem with the growth of cities (Meyer 2000). Race, ethnic, and class enclaves developed as urbanization brought white migrants, African Americans, and immigrants to cities (Teaford 1979). At the turn of the century, the predominant pattern of segregation occurred building by building, block by block, and sometimes several blocks by several blocks, but typically not by neighborhoods (Logan et al. 2015, Meyer 2000). Many cities featured multiple racial, ethnic, and class enclaves (Kellogg 1982, Rabinowitz 1978). In Philadelphia, for instance, about 40% of the black population lived in central city wards (4th, 5th, 7th, and 8th); but there were significant clusters of black homes in the 14th, 15th, 20th, 22nd, 26th, 27th, 29th, 30th, and 37th wards too (DuBois 1899). In Atlanta blacks lived in “Shermantown, Mechanicsville, Hell’s Half Acre, Bone Alley, and Pigtail Alley,” as well as “Darktown….Peasville…and Jenningstown,” (Rabinowitz 1978, p106). By 1940 neighborhoods had become much more homogenous. So, while the residential location of people of color and the poor was nearly always restricted, the pattern of segregation changed during the years leading up to the Second World War. In this chapter I argue that local governments played a role in producing this change. Governments adopted zoning and other policies that created or reinforced segregation in service to business elites and white, property-owning constituents who were demanding a larger, more active city government.

In the very large social science literature on the causes and maintenance of race and class segregation, the contributions of local government are given limited attention.57 Boustan (2012) concludes, “the most important [factor in the generation of residential segregation] appears to be individual choices of white households” (p318). Hayward (2013) agrees, arguing that restrictive

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57 The contributions of the federal government, on the other hand, are well covered (Jackson 1985, Massey and Denton 1993).
covenants were, “a more significant mechanism of racial segregation,” than local government activities (p59). Other scholars combine private and public actions into a single theoretical construct. For example, Cutler et al. (1999) provide evidence of “collective action racism” which involves, “specific policy instruments such as racial zoning or restrictive covenants prohibiting sales to blacks, or organized activities such as threatened lynchings or fire bombings that discourage blacks from moving into neighborhoods” (p476). Similarly, Dreier et al. (2004) associate racial zoning laws with biased real estate codes of ethics, racial steering, insurance redlining, and white violence concluding that, “racial segregation thus stems from the routine practices of the private real estate industry” and the spontaneous choices of urban residents “as well as from government policy” (p 120).

The role of government was important. For one thing, using the state to engage in promote restrictive collective action is qualitatively different than arranging segregation privately. Marshalling the power of city government institutionalizes prejudicial behavior and denies victims recourse. As Abrams (1955) explains, “passions and prejudices…unsanctioned by government…exhausted themselves” (p206). But when democratically elected local governments developed policies promoting segregation they became, “instruments of oppression against minorities” (p207).

Furthermore, while prejudicial attitudes and behavior were widespread during this period, government action was more variable. Understanding where and when local governments worked to create segregation along both race and class lines helps to clarify where segregation was likely to become entrenched and where it was more fluid, as well as provide insight into the factors that generate consequential local policy decisions.

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58 Of course, restrictive covenants required government action for enforcement. However, they could be generated without government involvement.
In this chapter, I explore the factors that contributed to the adoption of zoning laws. I argue that zoning was enacted by political elites seeking to manage the distribution of public goods to their core supporters. To present that argument, I first offer a historical narrative detailing the adoption of zoning laws by municipal governments. Then, I present a quantitative analysis of these adoptions. I find that cities with higher property taxes and larger budgets (where more was at stake), where Republicans (who led the municipal reform movement) had greater support, and where political participation was low (and thus more likely to be heavily skewed toward middle-upper class, native, white voters), zoning ordinances were more likely to be adopted. Finally, I analyze the effect of zoning adoption on future levels of segregation. I show that cities that were early adopters of zoning went on to become more segregated along both race and class lines than similarly situated cities without early zoning plans.

The dawn of the 20th century was an exciting time for local government. Populations exploded as the industrial revolution took hold. In this environment, the limited, caretaker approach to city governance became suddenly and profoundly insufficient for maintaining health, order, and property. Monkonnen (1988) explains, “cities could have chosen to ignore sewage, crime, unschooled children, and slow transportation by simply tolerating higher disease rates, offense rates, illiteracy rates, and traffic tangles” (p4). City governments did not take that path. Instead city governments worked aggressively to shape their social and economic environments. As Chapter 1 revealed, between 1890 and 1940, cities became modern – providing services like clean water, fire protection, police patrol, and road paving. It was in this environment that cities also began to seek control over space and residents’ use of space through zoning and city planning. The end goal of this control, as was true of most Progressive Era reforms, was to improve the lives and opportunities for businesses and residents – more

As Monkonnen indicates, it was far from obvious that cities would assert control over their environments, but the rapid spread of slums, worries about skyscrapers blocking natural light, fears of conflagration, and concern about public health threats provided early inspiration for cities to invoke their policy power of regulation over nuisances (Toll 1969). Reformers debated the correct policy solutions for these ills, recommending for example, density restrictions (Woodbury 1929), stricter building codes (Power 1983), the removal of alley dwellings (Silver 1997), or policies, including increased public transportation, that would encourage suburban homeownership for the working class (Baar 1996). In many cases, typically at the urging of local chambers of commerce, city councils chose to pursue zoning – regulating the use, height, and area of buildings and land (Brownwell 1975). Zoning was sometimes, but often not, combined with general development plans for the city. While zoning became wildly popular, planning did not. This decoupling of zoning from planning was viewed negatively by some leaders of the early planning movement who thought the creation of homogenous neighborhoods would be likely to reinforce social divisions and inequality (Toll 1969). Of course, this was often precisely the goal of zoning supporters.

The rise of social Darwinism contributed to the attraction of zoning as a solution for burgeoning problems. Social Darwinists argued that the evolution of humanity would follow a process of natural selection in which the environment played a defining role. As a result, controlling the environment was of utmost importance (Toll 1969). A related body of literature

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59 A number of important court battles ensured that zoning would be constitutionally allowed for the promotion of health, safety, welfare, and morals and did NOT constitute the deprivation of life, liberty, or property (see Hayward 2013 and Toll 1969 for overviews).
came to understand race and the differences between racial and ethnic groups as biologically rooted, hence, immutable (Hayward 2013). According to this doctrine, the inherent inferiority of blacks and other people of color (Native Americans, Chinese, Japanese, Mexicans), the preservation of “race purity” demanded, “segregation and discrimination in recreation, in religious service, in education, before the law, in politics, in housing, in stores, and in breadwinning” (Myrdal 1944, p58). Additionally, scientific and medical experts as well as politicians believed that the unsanitary habits and homes of the poor and people of color spread epidemic disease (Shah 2001, p6). In combination, these new theories offered a convincing rationale for the creation of special districts to quarantine offending groups. By 1930, about half of all large cities in the US had adopted comprehensive zoning plans.

Political leaders often used threats to public safety as a rationale for legislating segregation. New York’s 1916 zoning law, the first comprehensive zoning ordinance in the nation, sought to limit the health threat posed by skyscrapers which blocked natural light and so, contributed to the spread of tuberculosis (Toll 1969, p154). Because immigrants and Blacks were viewed as disease carriers, segregating them was a typical goal of zoning. In San Francisco, the first city to segregate explicitly on the basis of race, whites had grown increasingly paranoid that Chinese residents were spreading diseases like smallpox and tuberculosis and in 1890, enacted an ordinance that required all Chinese residents and their businesses to move, within 60 days, to the section of town which had been set aside for, “slaughterhouses, tallow factories, hog factories, and other businesses thought to be prejudicial to the public health or comfort” (McClain 1996, p224). In Baltimore, segregationists agreed that, “blacks should be quarantined in isolated slums in order to reduce the incidents of civil
disturbance, to prevent the spread of communicable disease into nearby white neighborhoods, and to protect property values among the white majority” (Power 1983, p301).

The belief that zoning would create stability in property values was widely held and generated strong support from land owners, commercial organizations, bankers, realtors, and developers (Abrams 1955, Brownell 1975, Weiss 1987). Boston’s first height restriction was passed in 1892 at the behest of downtown property owners who feared that the new skyscrapers would lead to an oversupply of office space and drive down property values (Kennedy 1992). In some places, this view had to be cultivated. In Los Angeles, for example, some developers were opposed to the city’s 1908 zoning law because they worried it would inhibit growth (Weiss 1987). To combat such reservations, early supporters of zoning made sure to argue that their proposals would, “enhance, not detract from property values,” (Toll 1969, p150). Zoning could easily have been invoked to improve the quality and health of working and lower class neighborhoods and limit land speculation (as some of the early reformers argued it should); however, “political pressures from those less inclined toward broad civic improvement” won out (Silver 1997, p24).

As zoning practices spread through the 1920s, emphasis on the enhancement of property values became the dominant argument; almost universally, it was believed that the wrong sorts of people residing or sometimes even working in an area could negatively impact property values. Abrams (1955) quotes an early real estate text which argued that, “…property values have been sadly depreciated by having a single colored family settle down on a street occupied by white residents,” and another that claimed a similar effect of “unassimilated aliens.” Both prescribed “rigid segregation” as a solution, “no matter how unpleasant or objectionable the thought may be to colored residents” (p159).
Aside from adding wealth to property-owning and voting residents, city governments had an even more powerful reason to protect and enhance property values – taxes (Lees 1994). An advertisement run by 5th Avenue merchants in the March 5th and 6th, 1916 editions of the New York Times argued that failure to support the city’s new zoning plan would lead to “vacant or depreciated property,” which would lead to “reduced taxes, leaving a deficit made up by extra assessment on other sections” (p5). Rising property values allowed municipal governments to grow without increasing tax rates. When some property values actually declined, municipal officials faced the unwelcome task of raising tax rates or cutting the budget.

As municipal governments began to spend vast sums on improving the lives and environments of residents, ensuring that the right (white/wealthy) residents benefited from the new city services became of utmost importance. This goal was clear to observers at the time. Booker T. Washington explained that, “the negro objects to being segregated because it usually means that he will receive inferior accommodations in return of the taxes he pays.” Such objection stemmed from the belief that segregation would ensure that, “the sewerage in his part of the city will be inferior; that the streets and sidewalks will be neglected, that the street lighting will be poor; that his section of the city will not be kept in order by the police and other authorities, and that the ‘undesirables’ of other races will be placed near him.” Thus, Washington concluded, “when a negro seeks to buy a house in a reputable street he does it not only to get police protection, lights and accommodations, but to remove his children to a locality in which vice is not paraded” (Washington 1915, p113-114). Frequently, white elites made arguments that taxing whites to pay for black public goods (like schooling) was “an indignity.” One delegate to the Louisiana Constitutional Debate in 1864, incredulous at the proposition asked, “Shall we tear the slave away from his master and then force the master to educate him?”
(Louisiana Constitutional Debate, quoted at length in Bond 1934, p16-17). As a result, in many cities (see Chapter 3), black areas lacked municipal services such as, “paving, water, sewerage, lighting and garbage removal,” (Knight 1927, p53; also Myrdal 1944).

Given that zoning was viewed as a way to both increase property values and maintain exclusivity in the distribution of public goods, it is unsurprising that Southern cities made early use of zoning to hem in expanding black neighborhoods and create clear dividing lines between white and black residential areas. Of course, the development of racial zoning in the South was part of a much larger process of reconfiguring race relations after the Civil War. During the period of Reconstruction and Redemption, whites subordinated, exploited, and killed blacks, but even in this context, the legal segregation of the races was not a foregone conclusion (Woodward 1955).  

In fact, although Jim Crow laws were widespread, most Southern cities did not legislate residential segregation directly.

Blacks being able and willing to live in white neighborhoods was a necessary (although not sufficient) condition for the enactment of legislation. Baltimore passed the first racial zoning law directed at blacks in 1910 following the violent response of white residents as black migrants moved into previously all white areas. Baltimore’s ordinance prohibited whites and blacks from moving into city blocks occupied by a majority of members of the other race. Quite aware of the requirements of the 14th amendment, the Baltimore council argued (and the Maryland Supreme Court agreed), that because the ordinance placed the same limitations on both racial groups it

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60 One vivid example of the ways in which Jim Crow changed existing practice comes from New Bern, North Carolina. In 1913, the city aldermen passed an ordinance which required that all “colored bodies” buried in the public cemetery be dug up and moved to a segregated location.  
http://www.newbernsj.com/article/20140209/Opinion/302099914

61 Rabinowitz (1978) argues that the picture was different with respect to schooling. Here, segregation was immediate and unchanging after the end of the war.
was not discriminatory (Virginia Law Review 1916). The vote of the city council fell along party lines with all of the Democrats in support and all of the Republicans opposed. Republicans were joined in their opposition by the entire community of black residents, some real estate brokers, and white homeowners who lived in integrated neighborhoods (Power 1983). Democrats were not just responding to their white voters in their promotion of segregation. Limiting black residential location also bolstered Democratic political power by ensuring that blacks would be packed into certain wards; thereby reserving the rest of the city for Democratic control (Rabinowitz 1976).

In some places, black political power slowed or inhibited the enactment of segregation ordinances (Rice 1968). In St. Louis, an effort to pass a segregation ordinance failed because it was opposed by a significant number of city elites (including most of the city’s leading Republicans, labor interests, religious leaders, and newspapers). The National Association for the Advancement of Colored People (NAACP) and the Knights of Pythias lobbied the St. Louis city government tirelessly and ultimately convinced 21 of the 28 aldermen and the mayor to vote against it. In 1912, the city went so far as to station five police officers at the house of a black family to protect them from, “possible attack by whites who resent what they term a ‘Negro invasion’ in their residential district” (The Crisis 1912 Vol 4, No 6, p272). In a low turnout election in 1916, supporters of the segregation ordinance won a city referendum and the city immediately began mapping the race of each city block. (Meyer 2000 19-21). In Kansas City, Missouri, blacks had a modest amount of political power due to their ties to the (Democratic)

62 Although the Court agreed with the city’s reasoning about the 14th amendment, it ultimately declared the ordinance unconstitutional because its provisions were retroactive thereby representing a taking by the government. (State v. Gurry 121 Md. 534 (1913))
63 Republicans were generally (tepidly) supportive of black rights in Baltimore and between 1890 and 1931, six black Republicans served on the Baltimore City Council (Greene 1979). Over the course of their careers, these councilors led the city council to provide significant contributions to Baltimore’s black community; but none were able to defeat the segregated housing legislation.
Pendergast machine. Despite support from a significant segment of the city’s white population, a racial zoning ordinance never made it past the lower chamber of the city council (Meyer 2000).

Bacote (1955) reports that throughout the late 1800s in Atlanta, black support was frequently courted by white factions. For instance, in the 1891 election, black candidates were nominated for council positions in the 1st, 4th, and 6th wards on the Citizens’ ticket (an anti-prohibitionist faction of the Democratic Party). White factions did this when they were in danger of losing the election – in 1891 the anti-prohibition Democrats were worried about a Populist victory. To prevent white factions from seeking black support in the future, the Democratic Party adopted the white primary in 1892, and the state of Georgia enacted a new constitution in 1908 which included a character requirement, a literacy test, and made property ownership a condition for registration (Bayor 1996). These changes severely restricted black participation, ensuring that white factions would only rely on white votes. The evisceration of the black electorate and black representation opened the way to the city’s enactment of segregation ordinances (Key 1949, Kousser 1974, Woodward 1955).

Atlanta enacted a racial zoning ordinance on the heels of a violent race riot in 1906. The riot erupted after local newspapers reported four alleged (but never substantiated) assaults upon white women by black men. According to Garrett (1969), the riot was ignited by the sight of black passengers riding next to whites on street cars. A white mob killed and beat dozens of black Atlantans over the course of three days. A concerted organizing effort among the city’s African American population followed. White elites and politicians denounced the riot, and a public/private relief fund was even established for families of the murdered victims (Garrett 1969). However, the riot also led many whites to conclude that, “separation of the races is the only radical solution of the negro problem in this country” (Charleston News and Courier,
quoted in the New York Times, September 30, 1906). Following the passage of the ordinance in 1913, all blocks in the city were assigned racial designations based on the race of the majority of current residents (Silver 1997).

Fighting racial zoning was one of the early nationwide causes to be adopted by the NAACP (Rice 1968, Meyer 2000) and due to the organization’s work, in 1917, the Supreme Court ruled racial zoning unconstitutional in Buchanan v. Warley. In the Buchanan decision the justices did not seek to protect the rights of black property buyers or to prohibit “amalgamation of the races,” but rather to protect the right of white owners to, “sell or lease their lands and houses to whomsoever they pleased” (Virginia Law Review 1928, p531). Nonetheless, the Chicago Defender declared that the, “hydra-headed monster of segregation…was killed by the Supreme Court,” and argued that the, “decision [was] a direct slap in the face to white southern oligarchy.” (November 10, 1917). According to Rice (1968), it was also a, “victory for moderate whites and Republicans” (p197).

Following Buchanan, many cities sought to enact constitutionally defensible racial zoning plans by turning to comprehensive city plans (Silver 1997). In 1914, a racial zoning ordinance was proposed in Birmingham while the Buchanan case was already moving through the court. A group of black attorneys convinced the Birmingham city council that they could face a costly legal battle if the Court ruled against Louisville’s ordinance. In order to prevent this, and to appease white demands for segregation, the council chose instead to adopt a

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64 The Court found that the ordinance improperly restricted the rights of property owners to dispose of property. It did not challenge the separate-but-equal doctrine that was in place as a result of the 1896 Plessy v. Ferguson decision.

65 San Francisco was the first city to utilize a form of use zoning for a racial purpose. In 1885, the city enacted a set of regulations for laundries operating in residential areas in an attempt to keep Chinese residents (who owned nearly all of the laundries and typically lived above them) from white neighborhoods. The law was invalidated by the Supreme Court in the 1886 case Yick Wo v. Hopkins in which the Court found that a law which is race neutral on its face may still violate the 14th amendment if administered in a prejudicial manner.
comprehensive zoning plan in 1926 that included racial designations for different city zones (Connerly 2005). Atlanta’s 1922 revision of the zoning ordinance combined zoning categories of land use and building regulations with racial designations. For instance, the city’s master zone map noted that, “unless otherwise designated on this map, all areas designated as dwelling house districts are also class H1 height districts and white race districts.” Other areas were designated as “colored district and an apartment house district” or “colored district and dwelling house district.” In 1929, the zoning code was again revised, this time including a prohibition on occupying a home on a street where the majority of residences were occupied by persons whom the resident was forbidden to marry by law (Meyer 2000). Eventually, the court ruled against these ordinances and by the 1930s segregationists had dropped the racial designations in favor of comprehensive zoning.

As the court struck down plans that endorsed outright racial segregation, the case for other forms of zoning had been building. A series of judicial decisions established the bounds of permissible approaches to regulating the uses and size of buildings. For instance, the court determined that exercise of police power (e.g. the authority to regulate behavior and enforce order), “must be reasonably adapted to the purpose of protecting some interest of the community,” (C.C.S. 1925 p417) and that nuisance regulation and other use restrictions, “must bear a substantial relation to the public health, safety, morals or general welfare” (Monchow 1928, p323). Zoning ordinances spread rapidly throughout the 1920s, particularly after the Supreme Court determined that comprehensive zoning would not require cities to compensate owners for losses in prospective land values in the 1926 case Euclid v. Ambler Realty Company.

66 https://cityloci.files.wordpress.com/2014/07/6-atlanta-19291954.pdf
Zoning adoption was also propelled by the Republican-led federal government. In 1922, under the direction of Secretary Herbert Hoover, the Department of Commerce issued a template for state enabling laws in the Standard State Zoning Enabling Act. The Act was published in 1924 and a revised edition was released in 1926. Thus, while Republicans tended to oppose zoning in the South, they were frequently the drivers elsewhere. In Boston, Republicans were shut out of city government by the powerful Democratic organization, leaving them to pursue zoning laws through the Massachusetts state legislature instead (Kennedy 1992, p113).

The arguments surrounding the adoption of comprehensive zoning were broad but imbued with municipal Progressivism’s race and class prejudices (Bridges 1997, Trounstine 2008). Comprehensive zoning supporters highlighted benefits such as the “adequate provision of light and air,” “stabilization [sic] and protection of property values,” “protection and maintenance of the home and home environment,” “to apply the most up-to-date methods of sanitation and hygiene,” “simplifying the problems of street traffic regulations,” and the prevention of congestion (A.C. Holliday 1922, p217). By separating industrial, commercial, and residential uses into separate districts each with standard regulations regarding the use, height, and area of buildings, zoning would make, “every town, city or village a more orderly, convenient, economic and attractive place in which to live and work,” (A.C. Holliday 1922, p218,). One key to ensuring high property values and orderly living arrangements was the ability for zoning ordinances to prevent noxious uses from polluting residential neighborhoods (Fischel 2001). Apartment buildings constituted one such noxious use.

In *Euclid v. Ambler*, Justice Sutherland explained that the apartment house is often a, “mere parasite, constructed to take advantage of the open spaces and attractive surroundings... interfering by their height and build with the free circulation of air and monopolizing the rays of
the sun…depriving children of the privilege of quiet and open spaces for play enjoyed by those in more favored localities…until, finally, the residential character of the neighborhood and its desirability as a place of detached residences are utterly destroyed. Under these circumstances, apartment houses, which in a different environment would be not only entirely unobjectionable but highly desirable, come very near to being nuisances.” (p394-395).

In allowing the protection of single-family home neighborhoods, Euclid laid the groundwork for the long-term shift from a country segregated by race to one that became increasingly segregated by income. In the early 20th century, race and income were so strongly overlapping that denying apartment buildings in a neighborhood of single-family homes would also largely prohibit blacks and many immigrants from residency. Making this point, Bruno Lasker, editor of Survey Magazine asked:

“Why, in this country of democracy, is a city government, representative of all classes of the community, taking upon itself to legislate a majority of citizens – those who cannot afford to occupy a detached house of their own – out of the best located parts of the city area, practically always the part with the best aspect, best parks and streets, best supplied with municipal services and best cared for in every way? Why does it deliberately ‘segregate’ the foreign-born who have not yet become sufficiently prosperous to buy or rent a home under building regulations which preclude the possibility of inexpensive development and construction?” (“Unwalled Towns,” The Survey, Volume 43, 1920, p677).

Lasker suggested that the answer to his question was the dominance of politics by wealthy property owners who sought to employ, “public power for the purpose of protecting sectional interests” (“The Issue Restated,” The Survey, Volume 44, 1920, p278). Segregation enforced via zoning was a means to accomplish this end. In cities like Chicago, Kansas City, and Los Angeles, some of the most powerful voices in support of zoning were homebuilders and real estate boards who stood to gain monetarily from segregation (Gotham 2000).
With such wide-ranging positive effects for powerful interests, it is easy to see why zoning became so popular. Yet, by the close of the 1920s, many cities had not yet adopted zoning plans. I have argued that zoning was a tool that enables elected officials to make it easier to limit the distribution of public goods to certain constituents and to ensure high property taxes, and that it was successfully implemented where zoning supporters had political power. In order to provide more systematic evidence of this argument, I collected data on all of the cities that enacted zoning ordinances between 1900 and 1930. I gathered racial zoning information from several reports including Rice (1968), Connerly (2005), Silver (1997), and numerous issues of the NAACP’s Crisis Magazine. To encode general zoning plans, I drew on an article published in The American City by Norman Knauss in 1929, which listed the years that zoning ordinances were enacted. Knauss reports having sent a survey to all municipalities with the authority to enact zoning. His list includes 768 municipalities that reported having an ordinance. I coded the city year in which zoning was enacted as a 1 and years leading up to that date as a 0. Cities exit the analysis once they enact zoning. Cities that were included in the Census but had no zoning law by 1929 are coded 0 for the entire time period. Zoning is my dependent variable. To these data, I merged city spending and demographic data culled from the Census (which are described in Chapter 1).

My primary independent variables are per capita total Expenditure and Property Taxes. I log the total expenditure variable because the data have a strong rightward skew. I expect both of these variables to be positively correlated with zoning. Where spending and property taxes were higher, local officials would have a greater incentive to protect the existing distribution of public goods and the total tax revenue. I include two additional political variables – the county-level Republican presidential vote share (linearly interpolated for non-election years) and county
level *Turnout* of age-eligible voters. Republican vote share is a rough proxy for the degree of support for regulatory policy, of which zoning was an example. I expect that greater Republican support will be associated with a higher likelihood of implementing zoning – except in the South.

A range of voting restrictions were in place throughout the time period under consideration (Keyssar 2000) and I include the turnout of the age-eligible population to capture the permissiveness of the electoral environment. This measure is preferable to including state level laws like the poll tax or literacy test because it allows for sub-state variation in the electoral setting. Generally, higher turnout is associated with greater participation of the poor and people of color (Hajnal 2010); populations that both tended to be opposed to zoning plans and stood to lose from their implementation. Thus, I expect that where turnout was higher, the likelihood of enacting zoning was lower.

A wide range of alternative explanations for the adoption of zoning were proposed by contemporary observers and later analysts of the movement, many of which are correlated with the political factors I seek to test. Writing about racial segregation laws, Woodward (1955) argues that the economic depression at the end of the 1890s led to “aggression against the minority race” (p81). To account for this possibility, I include a measure of the share of the total population that was *Unemployed*, linearly interpolated from the Census of Population and Housing. Fischel (2004) claims that zoning adoption followed the invention of trucks and busses, which made it feasible for businesses and apartment buildings to be built in residential and suburban areas, away from rail lines. I include per capita spending on *Roads*, which include street paving, street cleaning, and street lighting to capture differences in vehicular accessibility.

In the “History of Zoning,” Gordon Whitnall explains that, “the practice of zoning began…when

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67 This denominator includes men over the age of 21 until 1919 and both women and men over the age of 21 in 1920 and later elections.
the concentration of population in cities began to be pronounced” (1931, p2). The “urge for zoning” he goes on to say, “has arisen from the desire and the necessity to bring some order out of the chaos that has resulted from the anarchistic development of our cities.” I include the 10 year rate of change in total population and population Density (persons per acre) to capture urbanization. To measure threats of disease and conflagration, I include per capita spending on Health care and Fire-fighting.

As described above, contemporary supporters of segregation ordinances often asserted the protection of white, single-family neighborhoods as the primary goal. To measure the social threat of black and foreign populations, I include the share of the population that is Black, Foreign Born White, and Foreign Born Non White. To measure the threat of lower-income (apartment dwelling) populations I include the share of the population Renting their homes. To capture the presence of noxious industry that might be better contained in a zoned city, I include the share of the employed population working in Manufacturing. This variable also captures an argument presented by Connerly (2005): that industrialists preferred to maintain segregated cities in order to dampen the threat of union organizing across racial lines.

Many scholars (e.g. Woodward 1955, Myrdal 1944, Blumer 1958) understand segregation as a mechanism to bolster hierarchical racial control, as social distance may preserve the relative status advantage of whites. For instance, Wade (1967) argues that segregation was, “rooted in the white’s need for discipline and deference,” and that it, “provided public control to replace dwindling private supervision of the master over his slave” (p278). If this is the case, we should expect that cities with existing patterns of segregation would be most likely to institutionalize the practice. It is also possible, however, that cities with high levels of segregation would have had no need for legislation (see Silver 1997 on Roanoke). To adjudicate
between these two possibilities, I include a dummy variable coded 1 if the city had *Segregated Schools*. This variable is encoded from Johnson (2015) who characterizes states as requiring segregation, permitting segregation, prohibiting segregation, or with no segregation statutes. My variable is coded one for states that require segregation, .5 for states permitting segregation, and 0 for all others. Bobo, Kluegel, and Smith (1997) argue that the political institutionalization of Jim Crow ideology was driven by the needs of the Southern economy, particularly the exploitation of black agricultural labor. On the other hand, Godsil (2006) suggests that whites with a significant stake in retaining a large black laboring class may have opposed racial zoning, as such ordinances might lead black workers to leave the city. To account for either possibility, I include for the share of the workforce employed in the *agricultural sector*. If Bobo et al.’s theory applies to zoning, we would expect a positive relationship between agricultural dominance and zoning. We’d expect the inverse if Godsil is correct.

My observations represent 4293 city-years from 240 cities. All spending data are inflation adjusted and linearly interpolated. Census data are linearly interpolated as well. I run logistic regressions with errors clustered by city. I include fixed effects for region, which means that these comparisons are all within the same area of the country. That is, the regressions analyze the effect of city expenditures on the adoption of zoning in each of four regions – West, North, Midwest, and South. Column 1 shows the base model with no controls. Column 2 includes all of the above-described controls. In Column 3, I change the dependent variable to focus on racial and comprehensive zoning. Here, the dependent variable is coded 1 when the city adopts either race zoning or comprehensive zoning and is coded zero otherwise. In this analysis, I present an interaction between Republican vote share and region to show how party
politics differed in the South. These results are presented in Table 2.1 and summary statistics are shown in appendix Table A2.1

### Table 2.1: Effect of Local Political Factors on Zoning Implementation

<table>
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<tr>
<th></th>
<th>Column 1</th>
<th></th>
<th>Column 2</th>
<th></th>
<th>Column 3</th>
<th></th>
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</thead>
<tbody>
<tr>
<td></td>
<td>β</td>
<td>P&gt;</td>
<td>z</td>
<td></td>
<td>β</td>
<td>P&gt;</td>
</tr>
<tr>
<td>Expenditure $ Per Capita (logged)</td>
<td>0.787</td>
<td>0.008</td>
<td>1.255</td>
<td>0.000</td>
<td>1.354</td>
<td>0.000</td>
</tr>
<tr>
<td>Property Taxes $ Per Capita</td>
<td>0.052</td>
<td>0.000</td>
<td>0.049</td>
<td>0.007</td>
<td>0.072</td>
<td>0.000</td>
</tr>
<tr>
<td>Presidential turnout</td>
<td>-2.094</td>
<td>0.005</td>
<td>-3.18</td>
<td>0.001</td>
<td>-2.639</td>
<td>0.015</td>
</tr>
<tr>
<td>Republican Vote Share</td>
<td>5.133</td>
<td>0.000</td>
<td>5.249</td>
<td>0.000</td>
<td>11.292</td>
<td>0.002</td>
</tr>
<tr>
<td>% For. Born White</td>
<td>-4.645</td>
<td>0.011</td>
<td>-5.797</td>
<td>0.003</td>
<td></td>
<td></td>
</tr>
<tr>
<td>% For. Born Non White</td>
<td>-24.709</td>
<td>0.011</td>
<td>-26.98</td>
<td>0.065</td>
<td></td>
<td></td>
</tr>
<tr>
<td>% Black</td>
<td>-2.162</td>
<td>0.359</td>
<td>-3.398</td>
<td>0.177</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Highways $ Per Capita</td>
<td>-0.330</td>
<td>0.027</td>
<td>-0.292</td>
<td>0.047</td>
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<td></td>
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<tr>
<td>Health $ Per Capita</td>
<td>0.234</td>
<td>0.482</td>
<td>-0.322</td>
<td>0.505</td>
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<tr>
<td>Fire $ Per Capita</td>
<td>0.224</td>
<td>0.203</td>
<td>-0.052</td>
<td>0.759</td>
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<tr>
<td>Density</td>
<td>-0.006</td>
<td>0.637</td>
<td>-0.010</td>
<td>0.499</td>
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<tr>
<td>% Renters</td>
<td>2.136</td>
<td>0.170</td>
<td>5.743</td>
<td>0.001</td>
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<tr>
<td>% Employed in Manufacturing</td>
<td>2.643</td>
<td>0.049</td>
<td>3.361</td>
<td>0.027</td>
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<tr>
<td>% Employed in Agriculture</td>
<td>5.527</td>
<td>0.000</td>
<td>6.735</td>
<td>0.000</td>
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<td></td>
</tr>
<tr>
<td>10 year population growth rate</td>
<td>-1.355</td>
<td>0.026</td>
<td>-2.242</td>
<td>0.001</td>
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<tr>
<td>School segregation</td>
<td>1.276</td>
<td>0.068</td>
<td>1.150</td>
<td>0.115</td>
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<td></td>
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<tr>
<td>% Unemployed</td>
<td>5.338</td>
<td>0.052</td>
<td>5.788</td>
<td>0.073</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Midwest</td>
<td>-0.621</td>
<td>0.019</td>
<td>-1.567</td>
<td>0.000</td>
<td>0.442</td>
<td>0.860</td>
</tr>
<tr>
<td>North</td>
<td>-0.883</td>
<td>0.000</td>
<td>-1.788</td>
<td>0.000</td>
<td>1.868</td>
<td>0.441</td>
</tr>
<tr>
<td>South</td>
<td>0.313</td>
<td>0.349</td>
<td>-1.628</td>
<td>0.056</td>
<td>4.287</td>
<td>0.089</td>
</tr>
<tr>
<td>North * Rep. Vote Share</td>
<td>-1.069</td>
<td>0.786</td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>Midwest * Rep. Vote Share</td>
<td>-4.805</td>
<td>0.207</td>
<td></td>
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</tr>
<tr>
<td>South * Rep. Vote Share</td>
<td>-8.347</td>
<td>0.030</td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>Constant</td>
<td>-8.436</td>
<td>0.000</td>
<td>-8.073</td>
<td>0.000</td>
<td>-15.241</td>
<td>0.000</td>
</tr>
<tr>
<td>N</td>
<td>4293</td>
<td></td>
<td>3514</td>
<td></td>
<td>3687</td>
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</tr>
<tr>
<td>R²</td>
<td>0.123</td>
<td></td>
<td>0.178</td>
<td></td>
<td>0.170</td>
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Note: Logistic regressions; Robust Standard Errors clustered by city
Table 2.1 offers strong support for my claim that cities with greater public goods expenditures and more property tax revenues were more likely to implement zoning ordinances. With all else equal, shifting from the minimum per capita expenditure (about $4) to the maximum (about $476), changes the probability of adopting a zoning ordinance from 0.004 to 0.15. Similarly, cities with the lowest property taxes per capita (about $2) rarely adopted zoning ordinances, while those with the highest taxes ($67 per person) had around an 18% chance of implementing zoning. Where turnout of the voting age population was higher, zoning was less likely to be adopted. This result supports Toll’s (1969) claim that, “the demand neither for zoning nor for planning had grown out of any widespread outcry in the cities of the United States” (p199). Zoning adoption appears to have been led by the Republican Party, except in the South, where Republican voting strength limited the likelihood of adoption of comprehensive and racial zoning ordinances.68 These data fit the historical narrative presented above well.

In addition, many of the control variables suggest interesting patterns. For instance, there is no evidence that larger racial and ethnic minority populations drove zoning adoption. Nor did greater threats to public health or conflagration increase the likelihood of zoning. Contrary to Fischel’s prediction, zoning was not more common in cities with more spending on roads. Economic factors appear to have played a more important role. Zoning adoption was more likely in cities with higher unemployment and with greater shares of the workforce employed in manufacturing and agriculture. It was also more likely in cities with more renters (particularly in the case of comprehensive and racial zoning). This conclusion is bolstered by a secondary analysis in which I add a measure of renter segregation in 1900 for 42 cities. Where renters were

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68 Cities with reformed institutional structures were not more likely to adopt zoning. In fact, nonpartisan cities were somewhat less likely to adopt. This effect is largely driven by cities in the South where nonpartisan laws may have advantaged Republicans.
more segregated from homeowners, zoning was much more likely to be implemented. This finding suggests that homeowners were more supportive of zoning measures when they lived in more defined neighborhoods to protect. It is also clear that zoning ordinances were much more likely to be enacted in places that had a preference for segregation. Where segregated schools were the law, cities were more likely to adopt zoning. In additional analyses I find that cities with marked segregation at the turn of the Century, particularly in the South, were also more likely to adopt zoning. These results support the contention that zoning was a mechanism used to reinforce existing racial hierarchies. In the next section I provide evidence that this was precisely its effect.

**Zoning Generates Segregation**

As Chapter 1 revealed, race and class segregation existed prior to the introduction of public policy measures that would separate residents and land uses. The history of private mechanisms producing segregation is well understood (e.g. Jones-Correa 2000, Meyer 2000, Burgess 1994, Myrdal 1944). Blacks, immigrants, and the poor tended to live in areas that were removed from native white middle class residents for a variety of reasons. Rabinowitz (1974) explains, “some of the housing segregation was voluntary: Negroes sought proximity to their jobs, welcomed the freedom from white surveillance, and enjoyed the company of other blacks” (p98). More important was “black poverty, which limited housing options” and “white pressures to keep blacks out of their neighborhoods” (p98). Restrictive covenants, clauses written into property deeds specifying restrictions on the use of the property, were widely used to bar undesirable neighbors from occupying properties starting in the late 1880s (Fogelson 2005). Mortgage discrimination and real estate steering were institutionalized in the early 1900s (Helper 1969). However, Hayward (2013) explains that the problem with relying on black poverty or
restrictive covenants to maintain segregation was that the market was susceptible to encroachment, requiring coordination and constant vigilance against potential violators (Brooks 2002, McAdams 2008). Marshaling the power of municipal governments to restrict land use offered developers and property owners the promise of a protected investment.

Evidence indicates that zoning adopted in the early 1900s followed patterns created by private actors (Burgess 1994, Tretter 2012). Writing in 1929, M. T. Van Hecke explained, “zoning programs are frequently influenced by restrictions in deeds. Where a very substantial area has been set aside for a high type use through the medium of deed restrictions, and that area is sufficiently large and geographically distinctive, zoning officials ordinarily recognize the character of the development and classify that section accordingly, so that the objectives of the statutory and deed restrictions are the same” (p420). Both supporters and opponents of zoning argued that the new laws would simply reinforce patterns produced by the market. Supporters, like Robert Whitten, creator of Atlanta’s post-Buchanan comprehensive zoning plan, claimed that zoning would serve to lessen racial antagonism and economic loss by making the future of development more predictable as it enforced existing segregation patterns (Toll 1969 p262). Opponents suggested that zoning would add unnecessary (and some argued, unconstitutional) regulation when restrictive covenants were perfectly suited to the job of preserving neighborhoods and property (Virginia Law Review 1928, Ellickson 1973, Hayward 2013 pp118-119, Denzau and Weingast 1982, Berry 2001).

Aside from freezing private decisions in public policy, zoning also had the potential to generate race and class segregation through implementation. Ostensibly, zoning is undertaken in the interest of the city as a whole, but this, “depends entirely upon the way in which the work is done” (Van Hecke 1929, p414). This is because zoning, as an administrative task, requires
innumerable small decisions by municipal officers who may, consciously or unconsciously, bias outcomes toward some groups and away from others. E.T. Hartman (1925) explains, “chief among the problems are the granting or refusal of permits in accordance with the law, the decisions of the board of appeals in appealed cases, and appeals from either or both by interested parties” (p162-163). As is true of any regulation, zoning serves political purposes (Denzau and Weingast 1982). The discretion inherent in applying zoning laws meant that local officials could deny permits to builders who sought to house nonwhite or poor families and/or make exceptions for developers serving white and upper class residents (Bayor 1996, Meyer 2000). Abrams (1955) explains, “those who build for whites can get a modification pro forma. But the moment an unwelcome group appears, the officials stand firm” (p210). Until 1949, the Federal Housing Administration officially encouraged the use of zoning to generate race and class segregation (Stearns 1962). Valuators were instructed that, “the best artificial means of providing protection from adverse influences is through the medium of appropriate and well-drawn zoning ordinances” (Federal Housing Administration 1936, Underwriting Manual, Part II paragraph 227). Zoning was understood to protect locations “against declines in value or desirability” (section 306(2)) by preventing the, “infiltration of business and industrial uses, lower class occupancy, and inharmonious racial groups” (paragraph 229).

As Berry (2001) notes, providing evidence of the effects of zoning on segregation has proved challenging because zoning is ubiquitous today. But as the first section of this chapter revealed, in the first decades of the 20th century, zoning adoption was variable. I argue that this variation shows that early zoning adopters became more segregated cities – even accounting for the degree of segregation that existed when zoning laws were adopted. My dependent variables

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69 Berry (2001) takes advantage of the lack of zoning laws in Houston and their presence in Dallas to show that private controls – particularly covenants – produce the same outcomes as zoning laws.
in these analyses are *Change* in the level of *Race* and *Class segregation* between about 1900 and 1970. More specifically, I subtract the level of segregation at the earliest point in my dataset from the 1970 of segregation of non-Hispanic whites and renters. The earliest measures for racial segregation are from 1890, 1900, or 1910. For renter segregation, the earliest measure is 1900 for most cities.70 As explained in Chapter 1, the segregation of renters is an imperfect measure of class segregation – but it is the only measure that allows me to capture change over time.

My primary independent variables are drawn from the data described for Table 2.1. I expect that racial segregation will be most closely linked to racial zoning and comprehensive zoning (as the historical discussion indicated), while class segregation will be tied to all forms of zoning. In the analysis of racial segregation, my independent variable is a dummy variable noting whether a city adopted either a race based or comprehensive zoning ordinance in the period 1900 and 1930. These *Early Zoning Adopters* are coded 1, and cities that did not adopt racial or comprehensive zoning are coded 0. In the analysis of renter segregation, cities are coded 1 if they adopted any type of zoning ordinance between 1900 and 1930 and zero otherwise. I control for the *Change in City Population* between the earliest point of measurement for each city and 1970. Table 2.2 presents these results.

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70 I have data in 1900 for 49 cities. To increase the number of usable observations, I include the level of renter segregation in 1940 for 14 additional cities. The correlation between renter segregation in 1900 and 1940 is .8676. The results are nearly identical (though less precise) using only the data from 1900.
The results in Table 2.2 are striking – cities that were early adopters of zoning ordinances grew more segregated over the next 50 years compared to cities that were not early adopters.

Around 1900, cities that adopted zoning had very similar racial segregation rates to non-adopting cities (0.265 for adopters and 0.287 for non-adopters). By 1970, cities that adopted early zoning ordinances had segregation levels about 10 points higher on average (0.489 compared to 0.390). Zoning also exacerbated renter segregation. Cities that were not early adopters saw about a 4 percentage point increase in renter segregation between 1900 and 1970 compared to an 8 percentage point increase in cities with zoning.

Furthermore, zoning had significant consequences for property value inequality (as its promoters had hoped). To measure property value inequality, I created a Property Value Gini Index built from median home values at the census tract level in 1970. Cities in which all census tracts have very similar 1970 median home values have a low score on this measure, while cities that witness inequality in property values from neighborhood to neighborhood have a high score. Regressing the property gini on the dummy variable for early zoning adoption, including state fixed effects produces a coefficient of 0.09 (SE=0.003). Cities without early zoning had an average 1970 property gini of 0.04, compared to 0.13 among early zoning adopters. This difference is greater than a standard deviation on the gini index.
Of course, zoning was not the only mechanism available to local governments to promote race and class segregation. One of the most successful strategies of directing residential locations without force was the placement of segregated amenities. Austin, Texas was a pioneer in this practice. The city’s 1928 comprehensive zoning plan found that, “the Negroes are present in small numbers, in practically all sections of the city, excepting the area just east of East Avenue and south of the City Cemetery. This area seems to be all Negro population” (page number). So, the plan recommended that, “all facilities and conveniences be provided the negroes in this district, as an incentive to draw the negro population to this area.” This strategy would, “eliminate the necessity of duplication of white and black schools, white and black parks, and other duplicate facilities for this area” (Koch and Fowler 1928, p57). Soon after the adoption of the plan, Austin’s city council pursued this approach, providing a park, school, and sewer connections for African Americans only in this one section of the city. The council went on to duplicate the strategy for Latinos (Tretter 2012). In the 1940s and 50s (as I discuss in Chapter 4), the siting of segregated public housing followed a similar pattern.

Another tactic cities used to shape minority residential patterns was the use of eminent domain and the placement of public improvements. Abrams (1955) reports, “Sites abutting Negro developments have been acquired for railroad stations, incinerator dumps, urban redevelopment, public housing projects, roads, and similar improvements. These improvements sometimes tend to cut off the minority area from the rest of the city and stem the expansion of its living space” (p212). Such decisions became increasingly frequent as the federal government provided funds for redevelopment. As I show in Chapter 4, cities that spent more urban renewal dollars also became more segregated.
Cities also engaged in several strategies that enhanced/protected private decisions generating segregation. Chief among these was the refusal to deploy police forces to protect blacks from white violence when they sought to buy or rent homes in white neighborhoods. In many places, police routinely prevented the poor and people of color from setting foot in wealthy white areas at all (Meyer 2000, Myrdal 1944). In some places, city governments took actions to aid the effectiveness of private deed restrictions (Hirsch 1983). For example, the mayor of Baltimore established a special Committee on Segregation to help coordinate deed restrictions in white neighborhoods. The committee included the city’s building inspector, representatives from the health department, real estate agents, and neighborhood improvement association members (Meyer 2000).

Conclusion

This chapter has provided the first piece of quantitative evidence along with qualitative historical references that suggest that local governments influenced patterns of segregation by taking into consideration public goods provision as well as the wishes of wealthy business elites and white property-owning constituents. Local governments institutionalized prejudicial behavior and promoted segregation through the use of zoning ordinances.

Political elites enacted zoning ordinances in order to control the distribution of public goods in the city. They justified their zoning and segregation legislation with the argument that the poor and minorities had habits that were harmful to public health. One of the main goals of zoning ordinances was to create property values that were stable; this was highly supported by influential groups including home and landowners who did not want “others” settling in their

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71 As was the case with zoning, the use of police to support segregationists was variable. For instance, Meyer (2000) reports several examples of police providing support for black residents in New York City, St Louis, and Baltimore.
areas and decreasing the value of their investments. Local governments had no objections to keeping the property values high and stable, as this allowed them to refrain from raising taxes.

One major consequence that resulted from enacting zoning ordinances was that cities that adopted them early became more segregated in terms of both race and class lines. When cities restricted land use and the location of specific buildings, this created areas that were homogenous, leading to the reinforcement of inequality and social divisions.

In 1917, the Supreme Court ruled that zoning ordinances were indeed unconstitutional. This led many cities to turn their attention to comprehensive city plans and other forms of zoning that did not make outright segregation obvious. New comprehensive city plans were fueled by continuing race and class prejudice, and influenced the long-term shift from racial segregation to segregation by income level.

The historical references presented in this chapter support the argument that local government politicians used zoning as a mechanism to control the distribution of public goods towards their supporters and away from others, as well as create and maintain high property values in their cities. Zoning was an implemented effectively in areas where those in favor of zoning had political power to turn racial and class prejudice into legislation. Cities that were early adopters of zoning ordinances grew to be ten percent more segregated over the following fifty years than did cities that were not early adopters. The results also illustrate that zoning ordinances doubled the amount of renter segregation. In these early adoption cities, property values would also become more unequal by 1970.

Local governments used zoning ordinances as a mechanism to solidify, through institutionalization, existing racial hierarchies and prejudice, and this practice has had long-lasting effects. When cities could have used zoning to enhance the life of all residents, local
government officials catered to the private interests of their supporters and utilized policy tools including the placement of segregated amenities, public improvements, eminent domain, and redevelopment funds to protect and increase property values. The consequence of these practices was the generation of long-standing race and class segregation and prejudice.
Chapter 3: Inequality in Public Goods Provision, 1900-1940

Throughout the first decades of the 20th century, neighborhoods became increasingly homogenous along both race and class lines. By 1940, white/nonwhite segregation had increased by an average of 63%, while renter segregation increased by 54%. Chapter 2 provided evidence that cities pursued race and class segregation in an effort to ensure the protected delivery of public goods to constituents with political power – namely land owners, realtors, developers, and white homeowners. Segregation served this goal because both local public goods and local political representation have a spatial component. While it is difficult to deny particular households access to sewer lines or a local public park, it is much easier to deny particular neighborhoods. Thus, as segregation geography shifted, so too did public goods inequalities.

Nothing about the existence of residential segregation necessitates inequality in service provision; it only makes it easier to produce if it is what city officials prefer to do. In fact, early planning advocates often argued that taking race into account when developing city plans was the key to protecting black communities and ensuring that they received, “all necessary municipal services – paving, city water, sewers, electricity, fire, and police protection…” (Knight 1927, p137). While it was clear that public facilities would be separate, some planners insisted that there would be, “equal opportunities and facilities” (Virginia Law Review, 1928, p526). In most places though, inequality was the norm as, “housing segregation…permit[ted] any prejudice on the part of public officials to be freely vented on Negroes without hurting whites” (Myrdal 1944, p618).

72 As described in detail in Chapter 1, renter segregation remained at lower levels than race segregation throughout this period.
73 Knight, Charles. 1927. Negro Housing in Certain Virginia Cities, Publications of the University of Virginia Phelps-Stokes Fellowship Papers, Number 8
As Abrams (1955) explains, “though often merged into a single neighborhood, the ghetto was not always a slum nor the slum always a ghetto…the slum-ghetto was created when those of a single ethnic minority group lived not only in a ghetto but also in bad housing” (p76). Local governments contributed to the development of slum-ghettos by providing worse city services to neighborhoods populated predominantly by certain groups. Myrdal (1944) explains that the argument offered in support of these unequal allocations was the (erroneous) belief that whites paid all of the taxes, and so were therefore entitled to all of the benefits. It followed that, “whatever [Negroes] get is a charitable gift for which they should be grateful” (p336).

Over the long run, this pattern of government behavior contributed to the development of negative stereotypes about the people who lived in the slum-ghetto (e.g. that racial minorities or the poor, “cause[d] the deterioration of the places in which they live[d]” Hayward 2013, p64, emphasis in original). This is what Glenn Loury (2002) refers to as a “politically consequential cognitive distortion” because the disadvantage observed among a group of people is assumed to be, “intrinsic to that group when, in fact, that disadvantage is the product of a system of social interactions,” which then leads observers to be opposed to policy solutions or systemic reform (p26). It was in the early part of the 20th century that the foundation for continuing inequality in the 21st century was laid. By building inequality into the physical landscape, cities added, “unprecedented durability and rigidity to previously fragile and fluid [social] arrangements” (Torres-Rouff 2013, p257).

In Chapter 2, I provided evidence that political power in the hands of opponents could slow or inhibit the enactment of such policies. A similar pattern existed with respect to the distribution of benefits. In many cities, political participation of lower socio-economic status groups and racial minorities limited the degree to which public goods were allocated unequally.
When these groups were able to assert political power through voting strength or in official positions, they received more benefits from municipal governments.

In this chapter, I show that between 1900 and 1940, neighborhoods that were identifiably poor or inhabited by minorities were allocated lower quality services including road paving, public health efforts, and sewer extensions. I draw on detailed data from Atlanta, Birmingham, Baltimore, Boston, Chicago, and Philadelphia to provide this evidence. Where relevant, I discuss mobilization efforts on the part of underserved groups that limited the extent of unequal allocation. I also show that in the case of sewer connections, this inequality persisted into the latter half of the century. Using data from all places included in the Census in 1970, 1980, and 1990, I provide evidence that where minorities and renters were more concentrated (e.g. in more segregated cities) they were less likely to be connected to public sewers.

A common argument promoted in the literature, as early as the 1930s, was that class, not race, was the more important determinant of inequality. A 1932 report commissioned by President Hoover stated, “These conditions of Negro housing in our cities are not the result of any willful inhumanity on the part of our society. On the contrary, they merely emphasize the present shortcomings of our individualistic theory of housing…The Negro’s housing problem is part of the general problem of providing enough housing of acceptable standards for the low-income groups in our society” (Johnson 1932, p.viii). Myrdal (1944) also argued that, “in the North there is little, if any, direct discrimination…What inequality there is in the Negro’s consumption of public services in the North is due mostly to poverty, lack of education, and other disabilities which he shares with other lower class persons in the region” (p335). Thus, the belief that blacks endured worse conditions than whites solely because of their lower socio-economic status, was widespread. As will be shown throughout this book, this was not true in
either the historical or modern period, regardless of the measures used or the region studied.

Race and class exert powerful, independent effects on distributional outcomes.

Jim Crow and Public Goods Inequalities

Until the mid-1950s (and in some places long after), many Southern (and some Northern) cities generated inequalities in public goods by segregating access directly and then underfunding nonwhite services. Of all of the public goods residents sought to secure, none was as important as schooling. As of 1947, all southern states, along with Arizona, Indiana, Kansas, and New Mexico required or allowed segregation of schools (CQ Researcher 1947). Until the mid-1930’s, about 75% of public school revenues were completely locally derived (Snyder 1993). In the post-war period state and then later, federal government contributions rose.

According to the data described in Chapter 1, localities spent an average of $103 (in 2012 dollars) per capita on schooling in 1902, representing about 35% of total expenditures. Per capita spending rose dramatically over the next 25 years (to $203 in 1927), but not as quickly as other expenditures. In 1927, schooling represented about 31% of local budgets. Until (and in some places even long after) Brown v. Board of Education was decided in 1954, racial segregation in schools was generated directly – that is, residential segregation was not needed to

74 Technically, most schools in the United States are governed by approximately 13,000 independent, single purpose governments called school districts, rather than by cities. Not only are the governments that provide schooling and garbage service different entities, with separate budgets and separately elected officials, they do not often share the same boundaries. Today, only about one quarter of cities over 50,000 people have boundaries that are coterminous with a single school district (Fischel 2007). However, the 1902 Census Statistics of Cities reports that, “In most cities [included in the report] the schools are under the control of the city government, or of a school district, practically coterminous with the city” (p21). In his study of modern district boundaries, Fischel (2007) confirms that older cities are much more likely to have coterminous boundaries. It is for this reason that I include a discussion of schooling in this section. The figures cited in this paragraph combine revenue and expenditure for the municipality and the district as reported by the Census. However, it is not proper, even during this early period, to think of expenditures on schooling as being exchangeable with expenditures on other types of services. That is, increasing school spending did not directly impact funds available for policing, although one might imagine a theoretical budget constraint that the voters could impose on all governments. Due to a lack of clarity both theoretically and statistically, for the most part, I do not consider school district revenue and expenditure as part of the municipal budget in the remainder of this book.
ensure that whites and Blacks attended different schools. This was true in both the North and South. As one observer explained, “contrary to the general impression, this doctrine [of segregated schools] is of Northern and not of Southern origin. It originated in fact in the Quaker state of Pennsylvania and the abolitionist state of Massachusetts, and; although it repudiates any implication of a superior and an inferior race and insists on equal opportunities and facilities…” (Virginia Law Review 1928, p526). Litwack (1961) found that, “by the 1830s, statute or custom placed Negro children in separate schools in nearly every northern community” (p115).

In 1912, the Census reported expenditure data on schools separated by race in 40 communities. Unsurprisingly, white schools were better funded than black schools. I estimate that these cities spent about $4 per white resident and about $2.6 per black resident (in 1912 dollars). However, the ratio of spending in black to white schools differed by region. While Northern black schools were not, as the Virginia Law Review implied, equally funded – it was the case that the disparities were greater in the South. For cities in the Midwest, the ratio was 0.846, compared to 0.685 in the Northeast, and 0.573 in the South. School enrollments were also lower among black children. For the 1902-1903 school year, about 56% of black children were enrolled in school in Southern states, compared to 72% of white children (DuBois and Dill 1911, p24). In some places with substantial black populations, no black schools were provided

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75 This is an estimate because I used linear interpolation to estimate the total white and Negro population in each city in 1912. The figure represents the total amount of funding for white and Negro schools reported by the Census divided by my population estimates.
76 It is important to note that these data only represent a fraction of the communities with black schools or significant numbers of black school aged children (see discussion on page 122 in Financial Statistics of Cities Having a Population of Over 30,000: 1912). The 40 communities included in this special Census report spent less overall on schooling compared to other communities (about $3.6 per capita vs. $4.8 per capita). Compared to data reported in DuBois and Dill (1911), these figures appear to understate the discrepancy in funding between black and white schools.
Indeed, as Rabinowitz (1978) has argued, segregated schools actually represented an improvement in many communities because the alternative was complete exclusion – not integration.

Black schools had fewer teachers per child, shorter school years, and inferior physical infrastructure (DuBois and Dill 1911, Myrdal 1944). Teacher pay also differed substantially. For instance, in 1908 Georgia, the average teacher salary for whites was $45.47 compared to $26.37 for blacks (DuBois and Dill 1911). Despite similarly sized populations of white and black school children, Atlanta provided only 15 black grammar schools in 1920 compared to more than 40 grammar schools for white children. But not all white schools were treated equally. Schools serving poor whites (largely immigrants) were also, “older, less well equipped and often more overcrowded” (Myrdal 1944, p338).

Everywhere, blacks paid property taxes that were used to support white schools. Myrdal (1944) explains, “Whenever the proportion of Negroes in the population is high, and the standard of Negro schools is kept well below that of white schools, the white educational system can derive substantial gains from segregation. Segregation makes discrimination possible; discrimination means lower expenditures for Negro schools, and the white population thus gets a vested interest in separation” (p341). In 1917, the Negro-at-Large series sought to catalogue reasons for the increasing Northern migration among Southern Blacks. The results of the organization’s survey were printed in the Atlanta Independent. The third most important reason (after unhappiness with Jim Crow laws and disenfranchisement) dealt with inequality in school funding. The survey stated, “At present Negroes pay their proportion of taxes directly and a big portion in-directly through their rents, yet Negro schools receive in some cases less than 30 per cent of their just desserts” (reported in West 1976, p14).
However, the extent of inequality differed from place to place. DuBois and Dill (1911) report that in Washington D.C., where blacks sat on the Board of Education and held an assistant superintendent position, “there is no discrimination in the pay of teachers or in the requirements for teachers or in the course of study laid down” (p32). St. Louis and Baltimore both offered black high schools during this period. A 1954 study of inequality in education funding in St. Louis found that black schools were underfunded given their enrollment, but the difference was only about 5% and teacher pay was nearly identical (Russell 1954). In Atlanta, an active chapter of the NAACP sought to mobilize black voting power to improve public services in general and schooling in particular. In spite of a series of restrictions on voting (e.g. the white primary, poll taxes, etc.), the organization was able to register enough blacks to vote to sway some elections (Bacote 1955). In 1919, black Atlantans organized to defeat a bond package that would have solely funded white schools. So, in 1921 sponsors of the referendum sought black support in exchange for a black high school (West 1976).

Schools were not the only public good that was segregated directly during this period. Recreational facilities like parks, swimming pools, bath houses, and golf courses were also designated for white use only in many Southern cities. In Atlanta, blacks had three recreational sites compared to 22 for whites (Kruse 2005, p75). In 1954, The Atlanta Urban League calculated that whites had access to one acre of park land for every 155 residents compared to one acre of park land per every 1020 black residents. As a result, black parks witnessed severe overcrowding and much more rapid degradation (Kruse 2005). Myrdal (1944) writes, “virtually the whole range of…publicly administered facilities…are much poorer for Negroes than for whites” (p335). A graphic from President Truman’s Report of the President’s Committee on Civil Rights (Wilson 1947) makes the point visibly:
Although Jim Crow legislation was efficient at producing racial inequality, it was not perfect. As the Truman Report explained, “Following the Plessy decision, the Supreme Court for many years enforced with a degree of leniency the rule that segregated facilities must be equal. Gradually, however, the Court became stricter about requiring a show of equality”
Separate-but-equal facilities increased costs dramatically (Myrdal 1944). Additionally, some public goods could not be segregated directly. Troesken (2004) argues that, “because most cities and towns installed their water and sewer systems before 1920, during an era of relatively low residential segregation, it was difficult to construct systems that underserved African Americans without also underserving whites” (p91). As a result, he finds that the delivery of clean water and sewage disposal had a dramatic effect on lowering black mortality in the South. Furthermore, in some places, white public opinion had already begun to develop in opposition to overt racial prejudice and blacks were able to make headway in pursuing integration. Boston desegregated its schools in 1855 after sustained protest by blacks and abolitionist whites (Mabee 1968). By 1947, eighteen states had enacted antidiscrimination legislation prohibiting direct segregation (Konvitz 1947). Even some Southern cities (e.g. Atlanta) witnessed a significant local voice in opposition to Jim Crow (Kruse 2005). As direct segregation became untenable and the black population of these cities expanded, residential segregation became the obvious solution. Furthermore, unlike Jim Crow legislation, residential segregation permitted the separation of poor residents from wealthy residents in addition to the separation of residents of color.

**Inequalities Generated Through Residential Segregation**

When the nonwhite or poor community was segregated residentially, systematic denial of services was possible. A mid-century analysis of “American Negro, Puerto Rican, and Mexican” housing in large cities found that,

“Garbage collections, building inspections, street maintenance, and other city services are less satisfactory than in other areas. The abnormal number of rat bites in Harlem, for example, may be ascribed not only to proper upkeep but to the ready supply of uncollected garbage in the streets. Southern cities and some in the North omit street paving and sidewalks in Negro sections. In hills sections the residents try to fill gullies in
the streets with broken masonry, worn-out linoleum, and other trash” (Abrams 1955, p74-75).

In Birmingham, a committee of Black professionals protested the city’s 1923 segregation ordinance saying that while blacks “would prefer to live to themselves,” black neighborhoods, “are without the necessary sanitary arrangements, street improvements, lights, police protections, and the necessary comforts given other people in the municipality” (Connerly 2005, p44).

Among the most ambitious and expensive public goods that cities developed in the first decades of the 20th century were the delivery of clean water and removal of waste through sewer systems. Sewer and water mains were built along major roads, and homes located along these lines would have had the opportunity to be connected to the system. Troesken (2004) suggests, in a detailed analysis of Savannah and Memphis, that it appears that segregation, “facilitated efforts to underprovide African Americans with sewer and water systems” (p91). I build on Troesken’s case studies by analyzing sewer and water extensions over time in four cities: Baltimore, Boston, Chicago, and Philadelphia. These cities all witnessed increases in racial and renter segregation between 1900 and 1940 and had data available on sewer construction.

To measure segregation, I calculated the $H$ Index (as described in Chapter 1) for Baltimore, Boston, Chicago, and Philadelphia using ward-level demographic data from the 1900, 1910, 1920, 1930, and 1940 Censuses of Population and Housing. For racial segregation, I use whites and nonwhites as the groups in the calculation of the measure. For class segregation, I use renters and homeowners. Table 3.1 shows each city’s $H$ index in 1900 and 1940 measuring white/nonwhite segregation and renter/homeowner segregation.

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78 In order to make these scores comparable to modern data, I adjust the scores using a correction factor to make the ward-level estimates similar to the tract-level estimates used in later decades.
Table 3.1: Segregation Increased in the early 20th C

<table>
<thead>
<tr>
<th></th>
<th>Race</th>
<th></th>
<th>Class</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1900</td>
<td>1940</td>
<td>1900</td>
<td>1940</td>
</tr>
<tr>
<td>Baltimore</td>
<td>0.43</td>
<td>0.60</td>
<td>0.07</td>
<td>0.12</td>
</tr>
<tr>
<td>Boston</td>
<td>0.33</td>
<td>0.52</td>
<td>0.09</td>
<td>0.11</td>
</tr>
<tr>
<td>Chicago</td>
<td>0.46</td>
<td>0.84</td>
<td>0.09</td>
<td>0.15</td>
</tr>
<tr>
<td>Philadelphia</td>
<td>0.29</td>
<td>0.44</td>
<td>0.04</td>
<td>0.09</td>
</tr>
</tbody>
</table>

If the argument that I have presented is correct, it should be the case that nonwhite and renter households should have been less likely to have access to water and sewer connections in more segregated cities. Unfortunately, I do not have the individual-level data to test this hypothesis. However, there are also aggregate implications of my theory. If elected officials were taking demographics into account when making decisions about where to build sewer extensions, we should witness an interactive effect between segregation and the demographics of a neighborhood. As segregation increases, it should be the case that the share of residents who are nonwhite or renters should have a more powerful negative effect on new sewer extensions.

The data I use for this analysis were provided by the Center for Population Economics at the University of Chicago in the Historical Urban Ecological dataset (which is really a collection of many different datasets and maps). The dataset (Costa and Fogel 2015) includes ward boundaries for the four cities listed above between 1900 and 1930 and also includes a map of each city’s sewer system. The sewer map includes the year different segments of the system were built. Using ArcGIS, I created counts of sewer segments in each decade for each ward and combined these counts with ward-level data from the Census of Population and Housing.

Observations are arranged by ward-census year. That is, each observation represents one ward in a city in a single year. The dependent variable in the analysis is the Total New Segments.
built in each ward before the next census. The key independent variables are the share of each ward’s total population that is *Black* and the share of occupied housing units that were *Rented* (as opposed to owned). These demographic variables are interacted with each city’s *H index of segregation* (for race and class respectively) in a given Census year.

I control for the *Total New Segments* built in the city in each decade to account for the slackening pace of sewer development over time. I include the *Total Segments* built in the ward at the completion of the sewer system to account for the variation in sewer needs across wards. I also control for the proportion of those total segments that were built at the beginning of each decade in the variable *Percent Built*. Finally, I account for the share of the ward population that is *Foreign Born* to account for the possibility that city governments were providing fewer benefits to immigrant neighborhoods (which would have correlated with renter neighborhoods).

An important alternative (and undoubtedly true) explanation to rule out is that black and renting residents chose housing that lacked public services because it was less expensive. I do this by taking advantage of time. I explore the pattern of sewer line extensions in each decade between 1900 and 1940 given the racial makeup of each ward at the beginning of the decade. For instance, the total number of extensions built between 1900 and 1910 is regressed on the share of the ward that was black and the share that were renters in 1900. Because the dependent variable is a count of sewer segments, I fit a Poisson regression.

I was able to obtain data at the ward-level detailing racial makeup for every decade between 1900 and 1940, but data on renters is only available for 1900 and 1940. Because ward boundaries changed dramatically in some cities between these years, interpolation is not possible. Additionally, the Census did not tabulate data on renters in 1940 for the city of Chicago. As a result, adding the proportion of renters to the models significantly decreases the
number of observations. For this reason, I present the model without the inclusion of renters in
the first model, and with the proportion of renters in the second.

The results, presented in Table 3.2, reveal a powerful negative relationship between the
share of the ward that was black or renting and new sewer extensions in more segregated cities.
Table 3.2: Segregation Decreased Access to Sewers for Blacks & Renters

|                                | β     | Std. Error | P>|t| | β     | Std. Error | P>|t| |
|--------------------------------|-------|------------|-----|-------|------------|-----|
| % Black*Racial Segregation     | -21.643 | 1.347     | 0.000 | -11.811 | 2.002     | 0.000 |
| % Black                        | 9.429  | 0.676      | 0.000 | 6.713  | 0.925      | 0.000 |
| Racial Segregation             | 1.874  | 0.082      | 0.000 | -4.645 | 0.424      | 0.000 |
| % Renters*Renter Segregation   | -48.256 | 8.570     | 0.000 |        |            |     |
| % Renters                      | 3.654  | 0.765      | 0.000 |        |            |     |
| Renter Segregation             | 58.505 | 6.510      | 0.000 |        |            |     |
| Total New Segments             | 0.000  | 0.000      | 0.000 | 0.000  | 0.000      | 0.000 |
| Total Segments                 | 0.000  | 0.000      | 0.000 | 0.000  | 0.000      | 0.000 |
| % Built                        | -3.275 | 0.044      | 0.000 | -2.740 | 0.062      | 0.000 |
| % Foreign Born                 | 0.074  | 0.097      | 0.442 | -0.411 | 0.198      | 0.038 |
| Constant                       | 2.611  | 0.048      | 0.000 | 0.651  | 0.521      | 0.211 |
| N                              | 541    |            |     | 271    |            |     |
| Pseudo R^2                     | 0.788  |            |     | 0.748  |            |     |
The data indicate that in more segregated cities, heavily black and renter wards were unlikely to receive new sewer lines. Figure 3.2 plots the predicted number of new sewer segments across the full range of black and renter population shares for the least and most segregated city-years in the dataset. The graph in the top right makes clear that majority black wards see no additional investment in their sewer systems. A similar pattern exists for wards with increasingly large renter populations in cities that were segregated by class.

**Figure 3.2: Predicted Sewer Extensions at the Minimum and Maximum Level of Segregation**

<table>
<thead>
<tr>
<th>Minimum Racial Segregation (0.29)</th>
<th>Maximum Racial Segregation (0.86)</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="image1.png" alt="Graph" /></td>
<td><img src="image2.png" alt="Graph" /></td>
</tr>
<tr>
<td>Minimum Renter Segregation (0.04)</td>
<td>Maximum Renter Segregation (0.11)</td>
</tr>
<tr>
<td><img src="image3.png" alt="Graph" /></td>
<td><img src="image4.png" alt="Graph" /></td>
</tr>
</tbody>
</table>
In integrated cities however, the reverse is true: larger black and renting populations increase sewer line extensions. This may seem puzzling at first glance – but it is not. Troesken (2004) explains that the reason for this apparent generosity was self-preservation. He says:

…discrimination in this arena was costly to white politicians and voters in at least three ways. First, given the networked structure of these systems it was difficult to deny service to African-American households and neighborhoods without also denying service to white households and neighborhoods…. Second, in a world where blacks and whites lived in close proximity, ‘sewers for everyone’ was an aesthetically sound strategy. Third, failing to install water and sewer mains in black neighborhoods increased the risk of diseases spreading from black neighborhoods to white ones (p9-10).

As a result, to the extent that sewer systems were built prior to rising segregation, variation in sewer system service did not disproportionately affect any demographic group. In Richmond, Virginia, neighborhood segregation actually declined between 1890 and 1930, and one contemporary observer wrote, “With the completion of the 1925 program practically the whole of Richmond was sewered and supplied with city water” (Knight 1927, p51).

In other cities, organized political action on the part of nonwhites and the poor mitigated inequalities. Bond passage in Atlanta required approval of two-thirds of votes cast and the two-thirds majority had to constitute a majority of registered voters – so by simply registering and not turning out, African Americans could ensure defeat at the polls (West 1976, Bayor 1996). In 1919, Black voters defeated a one-million-dollar bond package that was to provide, “for improvement of waterworks, a motorized fire department, erection of a museum at cyclorama, and the construction of a crematory with electricity generating facilities,” after being told that, “blacks would receive no benefits from the measures’’ (West 1976, p13). When a new package was submitted to voters in 1921, it included $2,850,000 for water works and $750,000 for the viaduct (Atlanta Independent, February 24, 1921, p4). The mayor promised to appoint a special commission of colored citizens to advise the Bond Commission regarding the distribution of the
funds (Atlanta Independent, February 24, 1921, p4). On election day, Atlanta’s “colored citizens…voted for every improvement named on the ballot” (Atlanta Independent, March 10, 1921, p4).

In some cities, sewers were built at the behest of property owners and developers. This was the situation in Birmingham and Los Angeles. In cities with this type of process, landowners played a crucial role in the eventual sewer map. Because very few land owners were people of color, blacks in Birmingham and Mexicans and Chinese residents in Los Angeles lacked the opportunity to request sewer extensions or connections. While it might seem reasonable to explain inequality in access as the result of these economic differences, cities had other means by which to compel development. In Birmingham, sanitation and building codes were ignored in black neighborhoods (Connerly 2005), and in Los Angeles the city council ordered sewers to be built at the, “cost and expense of the several parties owning property along its route.” However, they declined to compel sewer building in Sonoratown or Chinatown (Torres-Rouff 2013, p224; quoting Los Angeles City Council minutes, April 4, 1873). Because most Mexican and Chinese residents were renters, this refusal was a significant benefit extended to their landlords. As a result, in both cities, the absence of sewer and water service was concentrated in minority neighborhoods.

In this next section, I ask whether this unequal pattern of sewer development continued to affect minority and renting residents in the latter half of the 20th century. In order to investigate this question, I draw on the GeoLytics Neighborhood Change Database which matches and normalizes Census tract boundaries between 1970 and 1990. This normalization allows for direct comparison of tract attributes across time. I use this database to construct the race and
renter $H$ index (as described in the previous section) for 4,566 incorporated municipalities and 800 unincorporated county areas.

The dependent variable in my analysis is the share of housing units in a given census tract that is connected to Public Sewers. My primary independent variables, similar to the previous analysis, are the share of the tract population that is Nonwhite, and the share of households that are Renters. These variables are interacted with each city’s $H$ index of segregation (for race and renters respectively) in each year. I control for the proportion of Wealthy Families in the tract (those earning incomes above the 90th percentile for a given Census year: $15,000 in 1970, $35,000 in 1980, $75,000 in 1990), the total City Population, and the total number of families connected to Public Sewers in the city. I include fixed effects for region and cluster the errors by city. The results are presented in Table 3.3 (summary statistics are in table A3.2).

| Table 3.3: Nonwhite and Renter Sewer Access in Segregated Cities |
|-----------------------------------------------|--------|----------------|-------------|
| % Nonwhite*Racial Segregation                | -0.261 | 0.069          | 0.000       |
| % Nonwhite                                   | 0.164  | 0.037          | 0.000       |
| Racial Segregation                           | 0.122  | 0.035          | 0.000       |
| % Renters*Renter Segregation                 | -2.643 | 0.854          | 0.002       |
| % Renters                                    | 0.851  | 0.228          | 0.000       |
| Renter Segregation                           | 1.631  | 0.418          | 0.000       |
| % Wealthy                                    | 0.254  | 0.105          | 0.016       |
| City Population                              | 0.000  | 0.000          | 0.000       |
| City Public Sewer Connections                | 0.000  | 0.000          | 0.000       |
| Midwest                                      | 0.053  | 0.013          | 0.000       |
| South                                        | -0.040 | 0.012          | 0.001       |
| West                                         | 0.017  | 0.012          | 0.171       |
| Constant                                     | 0.327  | 0.161          | 0.042       |
| N                                            | 146,102|                |             |
| $R^2$                                         | 0.327  |                |             |

As was the case in the early period, between 1970 and 1990 renters and nonwhite residents continued to have inferior sewer access in more segregated cities. Of course today, overall sewer
access is high; the median census tract has 97% of homes connected to public sewers. The point demonstrated by this analysis is that both in the past and today, lack of access to public sewers is disproportionately concentrated among minority and renting residents.

Delivery of other public goods followed a similar pattern to sewer development and clean water provision. In 1900, 8,000 automobiles were registered in the United States; by 1940 the figure was 27.5 million (Federal Highway Administration 1997). But during this same period, actual spending on roads increased very little and dropped as a share of total budgets.\textsuperscript{79} This meant that road paving distribution was an intensely political decision and different areas of the city were treated differently. One study of four Virginia cities reported, “a general lack of paving in the Negro residential areas” (Knight 1927, p53). In Los Angeles, Torres-Rouff (2013) explains, “many paved streets ran through the Anglo residential neighborhoods and commercial center but abruptly yielded to dirt as soon as they crossed into Sonoratown and Chinatown” (p226). A 1958 study of Birmingham analyzed white and black blocks in a single working class neighborhood and found that about a third of the black blocks had unpaved streets on three or four sides compared to only 6% of white blocks (Connerly 2005, p31).

As described in the introduction, mortality rates in cities during this time period, particularly the early years, were high. A budding public health movement sought to utilize government funds to address disease contraction and death. Cities created new public health departments, passed regulations regarding the storage and transport of milk, sent inspectors to stores and dairies, and engaged in large scale fumigation efforts. In all of these activities, white and homeowner neighborhoods were treated more protectively than neighborhoods inhabited by

\textsuperscript{79} In a sample of 84 cities for which I was able to obtain data between 1902 and 1937, mean per capita road spending was $44 in 1902 (in 1912 dollars) and $43 in 1937. It reached a high of $51 in 1932. Road spending represented about 13% of city budgets in 1902 and about 8% in 1937.
renters and minorities. In 1915, the nationwide infant mortality rate was 57% higher among nonwhites than whites. One study of 4 southern cities determined that nearly 1 of every 2 black babies died (Meckel 1990 p.142). Even still, black infants were “almost entirely” excluded from the “early part of the infant welfare campaign,” (Meckel 1990, p142).

A 1914 analysis of Baltimore’s Public Health department by the United States Surgeon General found that regulations were not enforced in the poorer parts of town. The report explained:

> An inspection was made by me of the stores selling milk in two of the districts of the city. One was located on the outskirts of the city in a good neighborhood…In every store the milk was sold in unbroken packages, was kept in a separate compartment of a large refrigerator and the conditions were as good as could be expected…The other district visited was of a different type altogether. It was located in the slums, among the foreign population. Here all the milk was sold in bulk under the most insanitary conditions. To make regulations here is practically hopeless. There are but three things to be done – stop the sale of milk in such places, establish a municipally controlled dairy within the district, or prohibit the sale of anything but bottled milk in original packages… (Fox 1914, p37).

In 1901, the Baltimore Health Department (reported in HUE dataset by Costa and Fogel 2015) reported an assessment of water quality in each ward. Only one ward had water that was classified as “Very Muddy” (as opposed to clear, fairly clear, cloudy, or muddy). That one ward was 52% black. The same ward also had the lowest level of chlorination in the entire city. In fact, there was a powerful negative relationship between chlorine parts per million and the share of black residents in a ward. Figure 3.3 provides a scatter plot of the data.
Not only were services provided differentially, but many cities engaged in a practice Rabin (1990) calls expulsive zoning: the placing of negative uses in minority neighborhoods. Kruse (2005) explains that as neighborhoods transitioned from white to black, city officials would assume that property values would fall and the area would become a slum. “Accordingly, planners and zoning committees lowered their standards for the region and began approving projects they would have routinely rejected if the residents were still white” (Kruse 2005, p74).

A 1932 analysis of housing in one New Orleans neighborhood reported that, “The superintendent of the public school system used to live in this area but the white residents began to move out and then the city built a garbage incinerator over here, and all of the best whites moved out and the Negroes moved in with the poor whites,” (Johnson 1932, p19). In Birmingham, city planners zoned black neighborhoods in flood plains and in industrial areas (Connerly 2005). Myrdal
(1944) reports that it was common to ignore criminal activity in black areas. As Muhammad (2010) explains, municipal authorities allowed crime to flourish in black neighborhoods as a service to white politicians and constituents. Doing so allowed whites access to prostitution, gambling, illicit alcohol and drugs while protecting white neighborhoods from the criminality. Because such operations were, “mostly owned, partially operated, and unofficially regulated by a largely white power structure” (Muhammad 2010 p.227), the benefits were captured by whites, while the negative externalities of vice were borne nearly exclusively by blacks. These strategies created conditions that lead later generations of planners to denote black areas as blighted slums, thus enabling the expulsion of blacks from these neighborhoods in redevelopment projects.

The historical record indicates that lower levels of segregation and more political power in the hands of blacks and the poor could mitigate such inequalities. Throughout the late 1880s, blacks held significant bargaining power in Atlanta city politics. Blacks were appointed to the nominating committees for city elected offices, and black votes were courted with promises of a black fire company, schools for black children, and street paving (Bacote 1955). After the white primary was struck down in 1946, blacks gained even more leverage in Atlanta politics. Black leaders had been pressing the city government for years to hire black police officers, “hoping to solve the problems caused by both the absence and the presence of white policemen” (Kruse 2005, p33), but their requests were ignored until they could marshal votes in city elections. In 1948, eight black patrolmen were hired (although they were only allowed to patrol black neighborhoods and could not arrest whites).

In Birmingham, many black neighborhoods formed active, dues-paying, civic leagues to lobby the city government for improved services. While they won a few small victories (the first city-owned park for blacks, some street paving and lighting, fire hydrant installation, sewer
extensions, and gas lines), they were mostly met with staunch resistance from the all-white government. One organization, the Harriman Park Civic League waited for four months to get an appointment with the public safety commissioner, Bull Connor. When the meeting finally occurred, Connor literally turned his back on the presentation (Connerly 2005, p221). In the late 1960s and early 1970s, as political power began to shift toward black residents, many of the requests brought by the civic leagues were finally addressed.

In Boston, Progressive Reformers attracted public support and won a series of institutional reforms between 1903 and 1913. Nonpartisan neighborhood organizations arose as powerful voices in municipal politics. The result was the consolidation of political power in the hands of middle-class homeowners (Connolly 2009) at the expense of working-class white ethnic immigrant constituencies like the Irish. However, the city was fairly integrated residentially along both ethnic and class lines during these years – and so, while political power shifted hands and the agenda changed, when neighborhoods won improvements like street cleaning and repair, playgrounds, libraries, or improved police protection, they benefitted all residents in the community, not just those with political power.80

Between 1914 and 1950, Boston was governed (on and off) by a staunch advocate of the poor and working classes – James Michael Curley. Curley was a machine-style politician, who was never able to consolidate a dominant citywide organization (Erie 1988). Many histories of this period note Curley’s lavish attention to the city’s, “working-class, ethnic neighborhoods” (Connolly 2009, p146). But the Census data from the period reveal that even the most heavily ethnic wards were actually fairly mixed. In 1930 for instance, wards ranged from 21% foreign

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80 Connolly (2009) argues that this shift in political power altered the agenda of city politics toward neighborhood improvement and away from issues that the working class prioritized like union protections and wage and pension increases (see pages 115-120) and also decreased participation among working-class voters.
born to 42%, and no ward housed more than 11% of the total foreign born population. So when Curley “ordered loans to clean and pave local streets, build a playground and bathhouse, and improve sewer and water serves” (Connolly 2009, p166) in the North End in order to woo Italian votes, non-Italian residents also benefitted.81

Yet, in many cities, even when residents and activists mobilized to lessen inequalities, “segregation [became] the cornerstone of the elaborate structure of discrimination against some American citizens,” (Wilson 1947). Hayward (2013) explains that the, “black ghetto [was] subjected to systematic disinvestment, while collective investments in new residential and commercial structures, and in ‘public amenities’, such as parks and athletic facilities and well-built and well-equipped schools, disproportionately [were] channeled to places that were, first legally, then practically, restricted to those constructed as white” (p63). These inequalities contributed to a growing collective sense of whiteness and homeowner identity on the one hand (Sugrue 1996, Hayward 2013), and on the other hand, the hardening of stereotypes about the suitability of poor and nonwhite residents as neighbors. White homeowners believed that individuals who shared demographic characteristics with those who lived in disinvested neighborhoods would bring slum conditions with them wherever they lived. In 1951 and 1953, Rose Helper conducted 40 interviews with real estate agents in New York City and Chicago to learn about the, “reasons for excluding Negroes from white residential areas” (Helper 1969 p18). She reported that the agents believed that, “[white people] fear that their neighborhood will deteriorate if Negroes come because of their manner of living in other areas: they associate Negroes with the undesirable slum (dirt, noise, squalor, stealing, vice), something to be avoided

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81 One scholar (Puleo 1994) estimates that in 1920, 95% of the North End population was Italian (p116). Without detailed data regarding the exact location of Curley’s benefits, it is impossible to know the degree to which they served other populations.
if possible” (p79). In response, white homeowners sought continued governmental protection of their neighborhoods. Over the next several decades they succeeded in this fight.

Conclusion
Between 1900 and 1940, America’s cities became increasingly segregated along race and class lines. While renters and homeowners both became more concentrated, the most dramatic changes in segregation occurred between blacks and whites. These changes in residential living patterns changed the distribution of public goods. As cities became modern service providers, the allocation of public goods was intensely political. In the earliest years when no neighborhoods benefitted from paved streets or clean water, health and cleanliness did not differ dramatically from place to place. But as streets became sewered, paved, and lit, and as inspectors enforced building, sanitation, and health codes, some neighborhoods reaped the benefits while others, “continued to contend with dirt roads and open cesspools” (Torres-Rouff 2013, p227). As Torres-Rouff (2013) explains, “these decisions produced a city that physically imposed inequality on its citizens” (p227). Such choices would be consequential for the future as inhabitants of these neighborhoods came to be associated with poor living conditions. Today, evidence indicates that segregation is maintained by white homeowners’ willingness and ability to pay a premium to live among white, educated neighbors (Cutler, Glaeser, and Vigdor 1999).
Chapter 4: City policy maintains/deepens segregation, 1940-1970

By 1940, segregation patterns in cities were well-established. The boundaries of minority neighborhoods were clearly defined and white prejudice against nonwhite neighbors was entrenched. As one Chicago realtor explained, our “firm has a policy where they won’t sell to a Negro in an area where Negroes are not resident…the general public…is not willing to accept the Negro as a neighbor. That’s the basis for our not selling to Negroes in this type of an area unless one Negro family is already in the block. You can’t be censured then. A silly idea but that’s life” (Helper 1969, p41).

The maintenance of property values was the typical explanation offered for these practices; a belief that had been cultivated by policies enacted by local governments and which quickly became a self-fulfilling prophecy. Blacks were seen as undesirable neighbors because the features of their neighborhoods became associated with individual members of the racial group. Whites came to similar conclusions about Chinese residents in San Francisco (Shah 2001, McWilliams 1964) and Latinos throughout the Southwest (Abrams 1955, Torres-Rouff 2013, McWilliams 1964). This was the case despite the fact that minorities and renters experienced poor neighborhood quality because of paltry municipal services, neglectful landlords, and the overcrowding that resulted from segregation, not from their own doing.

During the build-up of the war effort in the early 1940s, massive demographic changes rippled through the nation. African Americans moved to the North and West, and the war and agricultural industries attracted Latinos to cities and farms in the Southwest (Weaver 1948, McWilliams 1964). In the post-war period, city governments utilized policy instruments like urban renewal and the placement of public housing to prevent minority and poor neighborhoods from expanding into white areas, and to protect property values for white homeowners. At the
same time, tumultuous battles over racial integration (of neighborhoods, schools, busses, lunch counters, unions, etc.), the rising Civil Rights movement, and the passage of the Voting Rights Act, threatened to undermine white homeowners’ control of the political system, distribution of city services, and ability to police the borders of their neighborhoods (Sugrue 1996, Kruse 2005, Self 2003).

A great deal of insightful, detailed historical research studying the Civil Rights movement, segregation, and suburbanization has been written about the postwar period and this chapter does not attempt to retell what we already know. Instead, here and also in Chapter 5, I focus on the role of city policy in the generation of neighborhood segregation and suburbanization. An important contribution of these chapters is to explore why, if the drivers of segregation and suburbanization are similar, do white homeowners choose one avenue of separation over another? I argue that policy control plays an essential role. When white homeowners lost the power to adequately guard their neighborhoods and dictate municipal policy and public goods distribution, suburbanization became attractive. First, I show that urban renewal was linked to increased race and class segregation in the postwar period. Then, I demonstrate that whites in racially segregated cities witnessed increasing threats to their political power, both electorally and more specifically, with regard to housing policy.

**Urban Renewal and Segregation**

In 1932, more than 80% of local revenues came from property taxes (Census of Governments Finance File). By the end of that year, nearly 750 homes were foreclosed every day (Gotham 2000). City government revenue plummeted. Mayors sought relief from Congress; organizing as the National Conference of Mayors and testifying in hearing after hearing about the dire need for federal subsidy (Ogorzalek, forthcoming). As part of its
response, Congress enacted housing legislation. With its first foray into this area, the 1934 Housing Act and establishment of the Federal Housing Administration (FHA), Congress had multiple goals—the reemployment of the construction industry, the shoring up of the financial sector, and the stimulation of home ownership. But these policies were also spurred by a commitment to residential segregation. As Gotham (2000) details, the major authors of the proposals under consideration were, “leading officials in the real estate and lending industries” (p303), most of whom, by this time, had come to view race and class segregation as a stabilizer of property values and therefore, made them a conscious goal of these policies. Thus, it should not be surprising that the FHA played a major role in the institutionalization of suburban segregation (Gelfand 1975, Jackson 1985, Massey and Denton 1993).

However, the next piece of housing legislation, enacted in 1937 as the Wagner-Steagall Housing Act, was a conscious turn away from these forces. The Wagner Act sought to, “provide financial assistance to the States and political subdivisions thereof for the elimination of unsafe and insanitary housing conditions, for the eradication of slums, for the provision of decent, safe, and sanitary dwellings for families of low income, and for the reduction of unemployment and the stimulation of business activity” (Wagner-Steagall Act 1937). To achieve these goals, the act established the United States Housing Authority (USHA) to, “make grants and loans to local public housing authorities, to enable them to build, own, and operate housing projects for families of low income,” and importantly, to clear slums (Robbins 1937, p4). As such, the Wagner Act served as the first Congressional effort to assist in what is now commonly referred to as “urban renewal” – local efforts to address the ravages of time, revitalizing the “urban built environment” (Avila and Rose 2009, p339).
Whereas the establishment of the FHA and passage of the 1934 Housing Act were aimed at assisting those who could afford housing in the private market, the Wagner-Stegall Act sought to, “provide decent, safe and sanitary housing for that large group of our population who [could not] afford to pay enough to cause private capital to supply their housing needs” (Brabner-Smith 1937, p681). In addition to focusing on low-income residents, the Wagner Act also understood that, “any realistic approach to clearing slums and rehousing low income families would necessarily include a large number of Negroes as tenants” (Weaver 1940, p150). Thus, the USHA included an Office of Race Relations directed by an African American, Harvard-trained economist, Dr. Robert C. Weaver (Meyer 2000). Wagner’s office was charged with reviewing applications for federal funds to ensure that, “sound racial policy may be reflected in all projects” (Weaver 1940, p155). In a 1968 interview, Weaver recalled:

The Public Housing Program was perhaps one of the outstanding examples of equity of treatment as between white and black Americans….In public housing we not only got approximately a third, as I recall, at one time of the units available to nonwhites--most of them were Negroes--we also got Negro managers, which was unheard of in places like Atlanta and Memphis and Jacksonville and in Miami. We were able in the North to get projects which were open to both Negroes and whites. This required some doing as early as 1937 to '38. These were the exceptions rather than the rules but they did occur. (Weaver Oral History 1968, p9)

Reviewing Dr. Weaver’s tenure, The Crisis (the official publication of the NAACP) reported, “As a result of his efforts and the support of USHA officials, a more fair and equitable racial policy now exists in USHA than in any other branch of the Federal Government. On the basis of need, Negroes are enjoying equitable benefits from public housing…” (October 1940, p319).

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82 Dr. Weaver was the first African American to earn an Economics PhD at Harvard. He went on to serve as the first black cabinet member as the Secretary of Housing and Urban Development.
83 Available at http://transition.lbjlibrary.org/files/original/6404ca478ed6c3848eedaaaf380acdb45.pdf
However, despite the fact that, “The United States Housing Authority…tried to set…desirable precedents in the field of practical racial relations” (Weaver 1940, p155), the seeds of segregation were embedded in the design of urban renewal; planted by the coalition that brought it to fruition.

The first of these seeds was local control. J. W. Brabner-Smith, Counsel for the Federal Housing Administration explained in 1937 that the, “problem is essentially local and should be decentralized as far as possible” (p.681). Allowing local governments to decide which land would be cleared and where new housing would be built virtually guaranteed the continuation and exacerbation of race and class segregation because white homeowners and land-oriented businesses controlled city governments and opposed residential integration along either race or class lines. Further, these interests quickly moved to ensure control of the new housing and renewal authorities created to direct and manage the process (Hirsch 1983, Sugrue 1996, Gotham 2001). Sugrue (1996) explains, “local governments had the final say over the expenditure of federal funds, the location of projects, and the type constructed” (p60).

In Chapter 3, I provided evidence that city governments underprovided city services and practiced expulsive zoning – the placement of negative uses (like garbage incinerators) in poor and minority neighborhoods. The land values in these areas were low; the environment was degraded. As a result, they were considered blighted. In the early 1930s, local realtors and bankers assisted the federal Home Owners’ Loan Corporation (HOLC) in mapping property values of every block of every city in the nation (Gotham 2000). The HOLC’s low appraisal of neighborhoods of color and large numbers of renters is well known (Jackson 1985, Weaver 1948). These areas too, were considered slums. In San Antonio, 82,000 Mexican Americans populated a 4-square mile neighborhood west of downtown. Many of the homes were wooden
shacks or converted horse stalls. Tellingly, the neighborhood lacked paved and lit streets, parks, and sufficient sewer capacity (obviously the doing of the local government). Annual flooding created a breeding ground for mosquitos (Fairbanks 2000). Neighborhoods like this barrio – predominately populated with people of color and renters – particularly those close to downtowns or homogenous white neighborhoods, were the first to be cleared (Hirsch 1983, Sugrue 1996).

At the same time, in order to preserve property values and access to FHA loans (which required racial homogeneity), white homeowners vigorously blocked the building of low-income and multi-unit housing in their neighborhoods (Weaver 1948, Sugrue 1996, Hirsch 1983). Weaver (1948) reports that even whites living miles away from proposed projects objected to their development on the grounds that their property values would be threatened. Nearly all new housing was provided on a segregated basis – that is, whites and nonwhites were not to live in the same projects (Weaver 1946). In order to provide enough units for racial minorities, and given the few sites that were available for building, many of the public housing projects were constructed as high-rise buildings – which, even at the time, were understood to be less desirable for the successful integration of people in need (Weaver 1946). Thus, as neighborhoods with large populations of renters and people of color were razed, these residents were displaced into even more densely segregated communities. In both the decisions regarding clearance and the decisions regarding the building of replacement housing, local control generated increased segregation.

The second important feature linking urban renewal to segregation was underfunding. Basil Stockbridge, Executive Assistant to the United States Building and Loan League, complained that, “it can readily be seen that the Authority’s activities will hardly scratch the
surface of the real needs of the country in eliminating urban slums and blighted areas” (Stockbridge 1938, p329). The Act required that the development of any new housing be accompanied by the razing of unsafe or insanitary dwellings, “substantially equal in number to the newly constructed dwellings provided by the project” (Wagner-Steagall Act, 1937, p5). But the new housing did not need to be located where the old housing had stood. Additionally, it was possible to raze more housing than was actually built. The lack of adequate funds meant first, that many slums remained, and second, that the number of new, affordable units was generally lower than the number cleared. Because of this, overcrowding in existing poor and minority neighborhoods worsened.

Furthermore, the receipt of federal funds required the local community to contribute funds for construction, typically in the form of land donation and property tax exemption, as well as funds for ongoing operation of the project (Levine 1941). Many cities eagerly accepted the federal dollars, but budgeted vastly insufficient amounts for the maintenance of public housing. So, even though by the 1950s most housing authorities stopped the explicit segregation of public housing tenants, and in some cases promoted peaceful race relations (Weaver 1946, 1956, Collins 2004), the degradation of the units meant that they had already become housing of last resort. Those who could avoid public housing did and preexisting segregation meant that it was whites who could most easily find housing in the private market.

As is true of all large government endeavors, the coalition in support of the Wagner Act and its later revisions was a collection of diverse, conflictual interests. These interests can be roughly categorized as those who emphasized slum clearance versus those who sought “public low-rent” housing (Ickes 1935, p109).84 The former included business interests who held

84 Although of course, there was diversity within these broad groups, see Marcuse 1995.
property in and/or relied on a healthy economic market in the downtown of cities, real estate elites, urban planners, homeowners, and local politicians hoping to increase the tax base (Zipp 2012, Ringelstein 2015, Avila and Rose 2009, Gotham 2001, Sugrue 1996). As one journalist representing this set of interests explained, “the housing problem is not merely one of replacing insanitary or unhealthful dwellings for large numbers of our people. More importantly, it involves the whole problem of progressive neighborhood decay, which for years has been eating like a cancer at the heart of every great city in America. The victims of this cancer are not only slum dwellers. In greater number these victims are taxpaying, home-owning families in neighborhoods from humble to well-to-do in all parts of the country” (Lewis 1937, p189).

On the other side were those concerned about the extreme housing shortages among lower-income residents, severe overcrowding plaguing minority neighborhoods, and the influence of slums on lax moral standards and community disorder (Dean 1949, Zipp 2012, Meyer 2000, Hirsch 1983). This group included many low-income and working class residents, people of color, organizations like the NAACP, institutions like the Chicago Defender, unions, and social workers (Meyer 2000, Gotham 2001, Compass 1936).

From the outset, slum clearance supporters, like the National Association of Real Estate Boards, were opposed to direct government provision of housing (Gotham 2001). However, much of the land that local elites viewed as blighted and sought to redevelop was residential, and the areas were often physically quite large. Razing the houses and assembling parcels required eminent domain, which required a clear public purpose. Public housing offered this justification, but only when local authorities engaged in the taking – thus necessitating local control.85 Public

85 In United States v. Certain Lands in the City of Louisville (1935) the 6th Circuit Court ruled that the condemnation of land for slum clearance by the federal government was unconstitutional because it did not constitute a use necessary to carry out the powers delegated to Congress. The Housing Act of 1937 thus moved to decentralize
housing advocates worried that local control over site selection and construction would exacerbate segregation (Meyer 2000), but without support from the slum clearance interests, public housing would have collapsed nearly as soon as it started for lack of funding (Marcuse 1995).

When the Wagner-Stegall Housing Act was revised and expanded in 1949 and 1954, power shifted toward the interests favoring slum clearance and segregation. Because the crisis of the Great Depression had abated, slum clearance was much more popular with voters and elites than was public housing (Fairbanks 2000, Zipp 2012).86 As Gotham (2001) explains, these revisions, “represented the culmination of real estate industry lobbying efforts to curtail the production of public housing, create local redevelopment authorities with broad powers of eminent domain, and provide generous public subsidies for private redevelopment” (p297). By the time the last funds were allocated to local governments in 1974, the program had operated for more than 25 years as a mechanism to maintain and deepen segregation; it was termed the, “successor-weapon to the restrictive covenant and the racial zoning ordinance” (Abrams 1950). According to Collins and Shester (2013), urban renewal cumulatively resulted in the clearance of 400,000 housing units and 57,000 total acres; 300,000 families were displaced, about 54% of whom were nonwhite.87 But, as we saw with racial zoning in Chapter 2, there was great variation in the local pursuit of urban renewal funds, and thus its effect on segregation.

To provide evidence of the relationship between urban renewal and segregation, I rely on a dataset gathered by Collins and Shester (2013). In their article, Collins and Shester (2013)

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h86 The Housing Acts were not the only mechanism cities used to engage in urban renewal, but patterns were similar with regard to other programs. For instance, Barrett and Rose (1999) provide evidence that local business, politicians, and real estate interests utilized highway construction to produce similar outcomes.

87 Collins and Shester (2013) provide significant evidence that these measures accurately capture urban renewal activity undertaken by cities.
show that slum clearance and urban development programs had quantifiable positive benefits on city-level measures of income, property values, employment, and poverty rates. I seek to determine whether or not the program also increased race and class segregation. Collins and Shester’s data represent all funds approved and disbursed under Title 1 of the 1949 Housing Act between 1950 and 1974. The data were gathered from the Department of Housing and Urban Development’s Urban Renewal Directory. Cities applied for federal grants for particular urban renewal projects, and the directory listed the value of total approved and disbursed grants as of the date of publication. I add to these data each city’s level of white/nonwhite and renter/owner segregation in 1980, measured using the $H$ Index described in Chapter 1:

$$H = \sum_{n=1}^{N} \frac{P_n}{P_c} \left( \frac{E_c - E_n}{E_c} \right)$$

Where $P$ represents total population of neighborhood $n$ or city $c$ and $E$ is the entropy (diversity) of $n$ or $c$. $H$ varies between 0, where all neighborhoods have the same composition as the entire city (no segregation), and 1 where all neighborhoods contain only one group (high segregation).

First, I regress Total Approved Urban Renewal Funds (in hundreds of millions of dollars) as of 1974, on the $H$ Index of Segregation in 1950. We should expect that cities with a strong preexisting propensity for segregation should have been the most eager applicants for federal funds. I add a series of city characteristics also measured in 1950 to account for the many demographic and environmental conditions that might have both led cities to seek urban renewal funding and be correlated with segregation. These controls include the proportion of housing units that were Owner occupied, Median Home Value, the share of housing units that were Dilapidated, the share that were Built Prior to 1920, and the share that lacked Indoor Plumbing. I include Total Population, the share of the population that was Nonwhite, median Educational Attainment of the population over age 24, the log of Median Family Income, the Employment
Rate, the share employed in Manufacturing, and the percentage of families with Income Below $2,000 in 1949. These variables were all provided by Collins and Shester (2013). I add fixed effects for region, and report robust standard errors clustered by state. Collins and Shester provide data for all cities with more than 25,000 residents in 1950 and 1980 (482 in total), but I only have segregation measures for 172 observations. Tables 4.1 presents the results (summary statistics are in appendix Table A4.1).

Table 4.1: Relationship between Preexisting Racial Segregation and Approved Urban Renewal Funds

<table>
<thead>
<tr>
<th></th>
<th>Model 1</th>
<th></th>
<th></th>
<th>Model 2</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>β</td>
<td>Std. Err.</td>
<td>P&gt;</td>
<td>t</td>
<td></td>
<td>β</td>
</tr>
<tr>
<td>Segregation, 1950</td>
<td>2.49</td>
<td>0.551</td>
<td>0</td>
<td>1.205</td>
<td>0.321</td>
<td>0.001</td>
</tr>
<tr>
<td>% Owner occupied, 1950</td>
<td>0.004</td>
<td>0.005</td>
<td>0.456</td>
<td>0.004</td>
<td>0.005</td>
<td>0.456</td>
</tr>
<tr>
<td>Median Home Value, 1950 (log)</td>
<td>0.128</td>
<td>0.255</td>
<td>0.617</td>
<td>0.128</td>
<td>0.255</td>
<td>0.617</td>
</tr>
<tr>
<td>% Dilapidated, 1950</td>
<td>0.012</td>
<td>0.016</td>
<td>0.443</td>
<td>0.012</td>
<td>0.016</td>
<td>0.443</td>
</tr>
<tr>
<td>% Built Pre-1920, 1950</td>
<td>0.009</td>
<td>0.003</td>
<td>0.011</td>
<td>0.009</td>
<td>0.003</td>
<td>0.011</td>
</tr>
<tr>
<td>% Units w/o Plumbing, 1950</td>
<td>-0.005</td>
<td>0.005</td>
<td>0.342</td>
<td>-0.005</td>
<td>0.005</td>
<td>0.342</td>
</tr>
<tr>
<td>Population (millions), 1950</td>
<td>0.706</td>
<td>0.098</td>
<td>0.000</td>
<td>0.706</td>
<td>0.098</td>
<td>0.000</td>
</tr>
<tr>
<td>% Nonwhite, 1950</td>
<td>0.005</td>
<td>0.006</td>
<td>0.422</td>
<td>0.005</td>
<td>0.006</td>
<td>0.422</td>
</tr>
<tr>
<td>% Employed Manufacturing, 1950</td>
<td>-0.002</td>
<td>0.004</td>
<td>0.539</td>
<td>-0.002</td>
<td>0.004</td>
<td>0.539</td>
</tr>
<tr>
<td>% Employed, 1950</td>
<td>-0.019</td>
<td>0.023</td>
<td>0.419</td>
<td>-0.019</td>
<td>0.023</td>
<td>0.419</td>
</tr>
<tr>
<td>Median Education, 1950</td>
<td>-0.028</td>
<td>0.062</td>
<td>0.655</td>
<td>-0.028</td>
<td>0.062</td>
<td>0.655</td>
</tr>
<tr>
<td>Family Income, 1950 (log)</td>
<td>0.25</td>
<td>1.166</td>
<td>0.831</td>
<td>0.25</td>
<td>1.166</td>
<td>0.831</td>
</tr>
<tr>
<td>% Incomes Below $2000, 1950</td>
<td>-0.003</td>
<td>0.023</td>
<td>0.896</td>
<td>-0.003</td>
<td>0.023</td>
<td>0.896</td>
</tr>
<tr>
<td>Constant</td>
<td>-0.237</td>
<td>0.162</td>
<td>0.152</td>
<td>-1.771</td>
<td>8.885</td>
<td>0.843</td>
</tr>
<tr>
<td>N</td>
<td>173</td>
<td>172</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>R²</td>
<td>0.227</td>
<td>0.679</td>
<td></td>
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<td></td>
</tr>
</tbody>
</table>

Note: OLS regression including fixed effects for region, robust standard errors clustered by state presented.

Table 4.1 reveals that the application for urban renewal funds is strongly correlated with preexisting segregation. Those places that had a propensity for segregation were the most likely to apply for federal funding – even accounting for all of the physical factors that would have generated such applications. Topeka, Kansas, with a segregation index of 0.26 in 1950, applied for about $17.5 million in urban renewal funds over the course of the program. Kansas City, Kansas, where the segregation index was 0.54, applied for nearly $53 million. Atlanta, Georgia, with a segregation index of 0.67, applied for more than $100 million. In Richamond, VA, where
the segregation index was 0.51, city leaders only asked for $37 million. Salt Lake City, Utah with a segregation index of 0.18 applied for less than $5 million compared to Denver, Colorado’s application of $83 million with a segregation index of 0.49.

Next, I analyze the effect of urban renewal funding on future levels of Segregation ($H$ Index measured in 1980), conditional on preexisting segregation ($H$ Index measured in 1950). The independent variable in these analyses is Total Disbursed Urban Renewal Funding (in hundreds of millions of dollars) as of 1974. I do not have data on renter segregation in 1950, so these analyses use the 1950 level of racial segregation as the control. Again, I present the models with and without demographic and environmental controls measured in 1950. Table 4.2 shows the results for racial segregation and 4.3 shows renter segregation.

| Table 4.2: Relationship between Dispersed Urban Renewal Funds and Future Racial Segregation |
|---------------------------------------------|---------------------------------------------|
| Model 1 | Model 2 |                                            |
| β       | Std. Err. | P>|t| | β       | Std. Err. | P>|t| |
| Urban Renewal Funds ($100 millions) | 0.073 | 0.021 | 0.001 | 0.073 | 0.029 | 0.014 |
| Segregation, 1950 | 0.514 | 0.11 | 0.000 | 0.476 | 0.087 | 0.000 |
| % Owner occupied, 1950 | 0.002 | 0.001 | 0.088 |
| Median Home Value, 1950 (log) | 0.118 | 0.043 | 0.010 |
| % Dilapidated, 1950 | -0.004 | 0.004 | 0.350 |
| % Built Pre-1920, 1950 | 0.002 | 0.001 | 0.152 |
| % Units w/o Plumbing, 1950 | -0.001 | 0.001 | 0.165 |
| Population (millions), 1950 | -0.004 | 0.017 | 0.832 |
| % Nonwhite, 1950 | 0.007 | 0.002 | 0.003 |
| % Employed Manufacturing, 1950 | 0.003 | 0.001 | 0.003 |
| % Employed, 1950 | 0.006 | 0.006 | 0.329 |
| Median Education, 1950 | 0.007 | 0.014 | 0.642 |
| Family Income, 1950 (log) | -0.292 | 0.187 | 0.127 |
| % Incomes Below $2000, 1950 | -0.001 | 0.004 | 0.726 |
| Constant | 0.017 | 0.032 | 0.609 | 0.469 | 1.578 | 0.768 |
| N | 172 | 171 |
| R² | 0.639 | 0.711 |

Note: OLS regression including fixed effects for region, robust standard errors clustered by state presented.
Tables 4.2 and 4.3 reveal that the vigorousness with which a city pursued urban renewal affected the level of segregation after the completion of the program (conditional on starting levels of segregation). The results are much more powerful for racial segregation than for renter segregation. Every additional $100 million in urban renewal funds is associated with a 7% increase in racial segregation, compared to a 2% increase in renter segregation.\footnote{Collins and Shester (2013) use an instrumental variable approach in their analysis. They estimate urban renewal funds with the number of years the city had access to the program as a result of state enabling legislation. Even more powerful results are evident when I replicate their strategy.} As was the case for the effects of zoning shown in Chapter 2, local policy implementation is more tightly linked to racial housing patterns than class housing patterns.

This historical evidence indicates that cities varied not only with respect to their participation in the urban renewal program, but also in their investment in the ongoing maintenance of public housing. To investigate this possibility, I add to the data a measure of the
share of total expenditures each city spent on *Housing and Community Development Operations* in 1972. I interact this variable with the measure of *Total Urban Renewal Funding* in Model 2 from Table 4.2 above. I also add a control for the number of *Public Housing Units Per Capita* built under the Housing Act (from Collins and Shester) to account for differences in the need for maintenance spending. Figure 4.1 reveals how urban renewal funding operated differently when cities invested in ongoing maintenance and when they did not.

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**Figure 4.1: Urban Renewal Interacted with Housing Operations**

This variable was constructed using the finance data described in Chapter 1. It is calculated as the total dollar amount spent on housing and community development minus housing and community development capital outlays, divided by total expenditure.

Adding the interaction to Model 2, Table 4.3 (analyzing renter segregation) produces a similar effect that is smaller in size than the effect on racial segregation.

Interestingly, the coefficient on this variable is negative – meaning that cities that had more public housing overall were less segregated. However, interacting the number of public housing units with urban renewal funding results in a positive coefficient. This indicates that slum clearance and public housing were both factors in the increase in segregation that urban renewal produced.
In cities that accepted urban renewal funds, but budgeted nothing for operations in 1972, urban renewal had a steep positive effect on racial segregation. In places that provided municipal funds for the maintenance of renewal sites, increasingly vigorous renewal expenditures had a much smaller effect on segregation. Of course, this analysis does not offer causal leverage. It is entirely plausible that the cities that were inclined to invest in maintenance had a social/political culture that led to a smaller increase in residential segregation for other reasons. Whatever the underlying cause was – cities that accepted federal funds without ongoing budget provision for housing operations segregated the most rapidly. This variation aside, generally speaking, where slums were cleared and public housing was built, segregation increased.

Yet, even while urban renewal was largely carried out to the benefit of white homeowners and land-oriented businesses, their control over public policy was not absolute; the rising Civil Rights movement threatened it significantly. As of 1960, not a single large city in the United States had elected a black mayor. By 2010, more than a third had (Vogl 2014). Changes to voter eligibility brought by the 24th amendment and the 1965 Voting Rights Act increased turnout of racial minorities and the poor during this period as well (Filer, Kenny, and Morton 1991).

I use data collected by Vogl (2014) to investigate the relationship between levels of segregation and interracial electoral competition. Vogl (2014) analyzes mayoral election returns between 1965 and 2010 for all cities that had 1960 populations that were at least 50,000 and 4% black (194 cities). His data record the race of the top two candidates (either black or not black) and their vote totals. I add segregation measures to Vogl’s data resulting in complete data for
During the 1960s, only 13 black candidates sought the mayor’s seat in Vogl’s dataset; this number rose to 57 in the 1970s, and 84 in the 1980s. Interracial electoral competition was much more likely in more segregated cities. To show this, I regress a dummy variable coded 1 if the election was Interracial (e.g. featured a black candidate running against a non-black candidate) on the city’s $H$ Index of Segregation for the election year (interpolated between Censuses). I add the share of the city’s residents that were White and the share Renting their homes, as well as the natural log of total Population, and a trend variable for the Year as controls. I use a random-effects logit model with errors clustered by city. I restrict the analysis to elections that occurred between 1965 and 1990 in order to focus on the post-war period. The regression includes 731 elections from 117 cities. Figure 4.2 shows the marginal effect of segregation on the probability of witnessing an interracial election, holding all other variables at their mean values.

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92 I am missing pre-1970 segregation measures for 20 cities in Vogl’s dataset. I use 1970 segregation for the 36 elections between 1965 and 1970 for these places. Results are robust to the exclusion of these observations.
Figure 4.2: Segregated Cities Saw More Interracial Elections in the Post-War Period

Figure 4.2 makes clear that racially segregated cities were much more likely to experience interracial elections – even controlling for the share of the population that was nonwhite. As will be shown in Chapters 6 and 7, segregated cities are also more likely to have racially divisive politics. Although the dividing lines were in place long before the 1960s, they became much more visible in electoral politics during the postwar period. Elections featuring black candidates (and white contenders) were contentious – driving up turnout among both blacks and whites, and decreasing margins of victory (Vogl 2014, Lublin and Tate 1995, Washington 2006). However, the vast majority of elections were still won by whites. Blacks only won 13% of the 731 contests reflected in Figure 4.2; moreover, these wins were concentrated in places with majority black populations. Although whites maintained power in
most cities throughout the 1960s and 70s, their hold was tenuous. This weakness became increasingly clear through the successes of the open housing movement.

In 1942, only 36% of whites said that they would not be bothered if a black person with their same income and education moved into their block (Schuman and Bobo 1988); the majority of whites, “expect[ed] a vigilant government to protect their segregated neighborhoods” (Sugrue 1996, p63). These beliefs were intimately intertwined with opposition to public housing, which was viewed as “Socialist housing” (Los Angeles Times, March 23, 1952 p E1); specifically, public housing was viewed as, “a taxpayer-subsidized handout for the feckless” (Sugrue 1996, p63). Although a majority of the poor in central cities were white, racial minorities were disproportionately poor and poorly housed. Many whites opposed public housing because they feared, “a change in the racial character of the neighborhood” (New York Times, April 13, 1952, p28). Efforts to locate low-income housing in home-owner neighborhoods and/or integrate white areas was viewed as a government assault on owners’, “right to protect one’s own property” (Thomas, William P., Letter to the Editor, Washington Post, February 27, 1949).

In order to prevent integration in housing, white homeowners organized neighborhood associations, encouraged vigilant city inspectors to fine overcrowded minority homes, sent hundreds of letters to city governments, turned out in droves at public hearings, and engaged in violent assaults on black residents (Sugrue 1996, Hirsch 1983). But defending white, home-owner neighborhoods was a zero-sum game. For every area that successfully halted integration or low-income housing, another had to absorb (or block) it. This led to a lack of unity among segregationist forces. At the same time, support for scientific racial categorization plummeted

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93 About 62% of persons below the poverty line in central cities were white in 1959. Approximately 14% of whites were poor compared to 41% of blacks (https://www2.census.gov/prod2/pops/cen/2010/p00-068a.pdf, p7).
Advocates of open housing began to win concessions from the government. By 1945, in more than 200 cities, municipal authorities dedicated to maintaining peaceful race relations, established interracial commissions, committees, or agencies that advocated for civil rights reform (Hirsch 1983, p42). These often appeared in the wake of violent riots (Meyer 2000). The racial restrictive covenant, long used by real estate developers and homeowners’ organizations to keep minorities out of white neighborhoods, became unenforceable with a Supreme Court decision in 1948 (Abrams 1955). Even before this decision, some municipal judges were refusing to enforce covenants (Hirsch 1983).

Because the government owned and operated public housing, it was an obvious target for constitutional claims of unequal treatment. As early as 1944, New York City enacted an ordinance prohibiting tax-exempt status for housing projects that denied access to tenants on the basis of race. The ordinance had been spearheaded by the city’s interracial relations commission. In other places, civil rights organizations pressured municipal housing authorities to integrate public housing; the NAACP brought this matter before the court (Meyer 2000, Sugrue 1996). In 1953, the California Court of Appeals ruled in *Banks v. Housing Authority of San Francisco* that San Francisco’s Housing Authority must assign residents to public housing without regard to race or color. When the Supreme Court declined to hear the appeal (thereby allowing California’s ruling to stand), the case became precedent-setting. By 1954, 21 cities had passed some form of anti-discrimination law (Meyer 2000) and in 1962, President Kennedy signed an executive order,

directing Federal departments and agencies to take every proper and legal action to prevent discrimination in the sale or lease of housing facilities owned or operated by the
Federal Government; housing constructed or sold as a result of loans or grants to be made by the Federal Government; and housing to be available through the development or redevelopment of property under Federal slum clearance or urban renewal programs (Papers of Burke Marshall, Assistant Attorney General for Civil Rights).

Not only did cities and states pass anti-discrimination laws covering public housing, some also enacted open housing legislation that sought to prevent discrimination in the private housing market. The leader of the movement was again New York City, passing an ordinance prohibiting, “race, creed or national origin” discrimination in rental housing in 1957 (Bennett 1957b, p9). The ordinance was, “bitterly fought by property owners and real estate representatives” (Bennett 1957a, p7) and explicitly exempted room rentals in single-family homes or duplexes unless they were located in large housing developments (Bennett 1957b). Still, the passage of open housing laws represented clear policy change, largely emerging from the bottom-up. By 1968, 22 states had enacted fair housing laws that covered nearly all sales and rentals (Collins 2006). Such laws were passed in response to vocal, mobilized advocates in black and liberal white communities (Collins 2006). The 1968 Federal Fair Housing Act extended this coverage nationwide.

Despite such policy progress, even as of 1973, the General Social Survey found 64% of white respondents believed that a homeowner should be able to, “decide for himself whom to sell his house to, even if he prefers not to sell to Negroes” (GSS 1973), and a homeowners’ rights movement arose in response to the open housing laws. In Detroit, a collection of neighborhood organizations gathered more than 44,000 signatures in support of a homeowners’ right initiative (Chicago Tribune, July 13, 1963). The ordinance passed but was declared unconstitutional by the Wayne County Circuit Court in a suit brought by the NAACP (Chicago Defender, December 23, 1964, Sugrue 1996).
In California, after the state legislature passed a fair housing law known as the Rumford Act in 1963, a statewide campaign for its repeal was led by the California Real Estate Association and the California Apartment Owners Association who combined to form the Committee for Home Protection (Self 2003, Duscha 1964, Turner 1964). Proposition 14, confusingly referred to as “The California Fair Housing Initiative,” prohibited the state from, “denying, limiting, or abridging the right of any person to decline to sell, lease, or rent residential real property to any person as he chooses.”94 In an analysis of the campaign for Proposition 14, Self (2003) and Brilliant (2010) show that supporters rarely invoked race in their arguments, focusing instead on freedom and property rights. Reporting on the initiative battle, the Washington Post quoted a pamphlet issued by the Committee for Home Protection that stated, “Those who stand for the preservation of individual property rights today are in direct line of descent from the patriots who endured the hardships of the long winter at Valley Forge with George Washington” (Duscha 1964, pA2). Prominent Democrats including Governor Edmund Brown opposed the initiative, and a number of “right-wing Republicans” including Ronald Reagan and Barry Goldwater were “extremely active” in support of the initiative (Duscha 1964, pA2). In the end, the initiative passed with more than 65 percent of the vote, even as Johnson won the presidential race decisively (Greenberg 1964, p1).

Scholars have identified varying patterns of opposition to open housing in different places. For instance, Sugrue (1996) shows that in Detroit, the staunchest integration resisters were working-class white ethnics who owned modest, single-family homes (see pp236-237). In Oakland, Self (2003) finds that it was not solely, “an anti-liberal white working class engaged in direct struggle with African American,” but rather middle and upper-class whites who,

94 SALES AND RENTALS OF RESIDENTIAL REAL PROPERTY California Proposition 14 (1964). http://repository.uchastings.edu/ca_ballot_props/672
“understood property rights as sacrosanct expressions of their personal freedom” (p168). Collins (2004) shows that states with higher union membership rates were more likely to pass fair housing legislation and Self (2003) provides evidence that the UAW campaigned against Proposition 14, although Brilliant (2010) argues that rank and file union members were staunchly opposed.

To better understand the individual correlates of opposition to open housing, I gathered data from the 1964 Field Poll in California. Carried out in seven waves between January and October, the poll asked respondents about their support for the Rumford Act and Proposition 14. I recoded these questions to into a variable coded 1 if the respondent Opposed Open Housing. I use logistic regression to regress this variable on several demographics including whether or not the respondent Owns (vs. rents) her home, her Race (coded 1 for white and 0 for nonwhite or other), her Age, her level of Education, whether or not the respondent or her spouse belongs to a Union, and her Economic Level (with higher values representing lower classes). In addition, I include a measure indicating whether or not the respondent planned to vote for the Democratic

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95 Ideally, I would have analyzed the relationship between community segregation and public opinion on open housing. Unfortunately, the Field Poll recorded no geographic identifiers other than the very broad categories of Northern and Southern California.

96 For waves 2, 3, and 5, I used the question about the Rumford Act. In waves 1 and 7, no Rumford Act question was asked, so I used a question about Proposition 14 instead. Waves 4 and 6 did not include open housing questions. The text of the questions are as follows: (Rumford Act) Well, as you know the Rumford Act is a Law which makes it illegal for apartment house owners, owners of publicly assisted housing, and real estate brokers to discriminate against anyone because of race, color, religion, national origin or ancestry in the renting or selling of housing accommodations. From what you know of it, do you approve or disapprove of the Rumford Act?” (Proposition 14) “If you were voting today, would you approve or disapprove of this addition to the state constitution? (the amendment reads as follows – prohibits state, subdivision, or agency thereof from denying, limiting, or abridging right of any person to decline to sell, lease, or rent residential real property to any person as he chooses. Prohibition not applicable to property owned by state or its subdivisions, property acquired by eminent domain, or transient lodging accommodations by hotels, motels, and similar public places.” Where possible, I use the question about the Rumford Act instead of Proposition 14, because the waves included very different wording of the Proposition question (adding more and less detail about the content).

97 The coding of this variable is obscure. The codebook suggests that 10 categories were used and lists the following labels “upper,” “upper middle,” “upper middle,” “middle,” “middle,” “middle,” “lower middle,” “lower middle,” “lower,” and “lower.” One can only assume that the coders were instructed in some way to make distinctions across categories.
Presidential ticket (Johnson/Humphrey). I cluster the standard errors by poll wave. The results, presented in Table 4.4 paint a clear picture confirming and undermining various aspects of the historical accounts. Summary statistics are presented in Table A4.2.

| Table 4.4: Demographic Characteristics of Open Housing Opponents |
|------------------|--------|--------|----------------|
|                  | \(\beta\) | Std. Err. | \(P>|t|\) |
| Home Owner       | 0.193  | 0.065   | 0.003        |
| White            | 1.205  | 0.412   | 0.003        |
| Education Level  | -0.177 | 0.035   | 0.000        |
| Union Member     | 0.284  | 0.111   | 0.011        |
| Age              | -0.004 | 0.053   | 0.934        |
| Economic Level   | 0.003  | 0.026   | 0.897        |
| Democratic       | -0.896 | 0.386   | 0.020        |
| Constant         | 0.33   | 0.334   | 0.323        |
| N                | 4,860  |         |              |
| \(R^2\)         |        | 0.0575  |              |

Note: Logistic regression with errors clustered by poll wave.

White homeowners were clearly in opposition to open housing, as were less educated respondents, Republicans, and union members. After controlling for these characteristics, economic status and age played no role in the determination of political opinions on open housing. Since the earliest years of the century, the most consistent opponents of integration have been white homeowners who came to view the protection of their neighborhoods as a right to be protected by government. These residents understood the “very essence” of Proposition 14 to be the avoidance of, “state involvement in private decisions in the sale of rental of privately owned residential property” (Blake 1964, pK1).

In 1966, the California Supreme Court declared Proposition 14 in violation of the Constitution, and the Rumford Act was allowed to stand. However, the lack of support for open housing among whites and owners would prove to be a formidable barrier for integrationists. Collins (2004) reveals that fair housing policy had little effect on black housing market outcomes.
and did nothing to affect levels of segregation. The changes local communities experienced
during post-war period would have other long lasting effects. When California voters
overwhelmingly supported Proposition 14, they also overwhelmingly supported Johnson (over
Goldwater) for president. Many contemporaries and scholars would explain this apparent
inconsistency as Mark Brilliant (2010) does:

    Californians who voted for Prop 14 but against Goldwater were not so much signaling a
wholesale rejection of civil rights…They were, however, hoisting a ‘no trespassing’ sign. They
drew a line that cordoned off a more public sphere where the state could and should
protect against discrimination from a more private sphere where no such state laws could
tread (p206).

As Kruse (2005) so forcefully demonstrates, and I quantify in Chapter 7, this turn toward
understanding neighborhood protection as a right (rather than a racist act), did not, in fact,
represent an expression of newly discovered profound principles. It was, rather, a means to a
segregationist end, and would serve as the rhetorical foundation for a rising conservative
movement. More immediately, the rise of black candidacies, the advancements of the Black
Power and Civil Rights movements, and the changes to public policy encompassed in the Voting
Rights and Fair Housing Acts all threatened white control over central cities. At the same time,
numerous federal and local policies made suburban living an attractive option – one that would
offer white homeowners more complete control over the political arena. The next chapters offer
evidence of these patterns.

In 2012, the Manhattan Institute issued a report entitled “The End of the Segregated Century,” declaring that, “all-white neighborhoods are effectively extinct,” (Glaeser and Vigdor 2012). Though not all demographers shared the optimism of Glaeser and Vigdor, many trumpeted the decline of neighborhood segregation in America following the release of the 2010 Census (Frey 2014). While segregation between neighborhoods has declined, another type of segregation has remained remarkably stable, even rising in the post-war period. Segregation between cities is persistent along both race and economic lines (Fischer et al 2004, Massey and Hajnal 1995). This means that while integration within cities has increased, cities as a whole have become less racially and economically diverse over time. As a result, a greater share of total segregation in metropolitan areas is now accounted for across cities rather than within them (see Chapter 1). This is what is commonly understood as the process of suburbanization.

While we have substantial evidence on the role federal policies have played in generating suburbanization (Jackson 1985, Massey and Denton 1993, Hayward 2013), our understanding of the ways in which local politics affects suburbanization has been limited. In previous chapters, I argued that segregation was pursued by local governments in order to enhance property values and make it possible to target local public goods towards white homeowners and land-oriented businesses. Such strategies, combined with political control of city councils and mayors’ offices, ensured that local governments operated to protect the homogeneity of white homeowner neighborhoods and provide them with disproportionate benefits. In the post-war period, this control was threatened by increasing minority electoral participation and policy achievements. Here, I demonstrate that these changes contributed to suburbanization.
The analyses in this chapter rely on a measure of segregation that incorporates patterns of sorting both within cities and between cities and suburbs. This strategy offers an advancement over previous scholarship because it allows for a consideration of residential sorting at multiple geographic levels at the same time. Most scholars focus either on metropolitan level segregation (e.g. Dreier et al. 2004, Jackson 1985) or neighborhood segregation (e.g. Massey and Denton 1993) – but these types of sorting are intricately linked. By drawing on a nested measure of segregation for all metropolitan areas over a long time span (1980-2011), I am able to show that residents traded one type of homogeneity for another in response to political outcomes. I utilize time lags and metro area fixed effects to handle the problem of endogeneity, as race and class sorting can, in turn, generate different political outcomes (Massey and Hajnal 1995, Friesema 1969, Nelson 1992). In this chapter, I analyze the relationships between cities within metropolitan areas. I concentrate on the ways in which the politics of the central city (the city with the largest population in the metro area) affects demographic residential patterns in the suburbs. I find that when central cities elect minority mayors, when central city expenditures are higher and favor policing, a greater share of metropolitan area segregation is accounted for between cities rather than within them. I also show that in metropolitan areas where land use regulations are stricter in the suburbs than in central cities, more segregation is accounted for across cities. In short, when central city politics do not favor their interests, white and upper class residents are more likely to reside in different cities rather than in different neighborhoods and they lock in these sorting patterns through public policy. In the final section of the chapter, I show that communities with more whites and homeowners receive a disproportionate share of municipal spending.

Understanding the Link Between Segregation and Suburbanization
People choose where they live based, in part, on the types and quality of public goods and services provided in a community, as well as the taxes required to provide those goods and services (Tiebout 1956, Ely and Teske 2015, Banzhaf and Walsh 2008). However, not all residents are equally able to match these preferences with housing location. Low-income households have less choice than do high-income households because amenities (including schools, parks, and public safety) are capitalized into housing prices and rents. Racial and ethnic minority households have also been severely limited in their ability to live where they choose. In part, this is the due to the fact that minorities have lower average levels of income and wealth. But, as previous chapters have shown, it is also the result of concerted efforts by white homeowners to segregate them.

The long history of enforced racial segregation in America has been well documented. Between 1900 and 1940, neighborhood-level residential segregation expanded dramatically throughout the United States (Cutler, Glaeser, and Vigdor 1999). A variety of mechanisms ghettoized racial and ethnic minorities including violence and intimidation perpetrated by white residents, restrictive covenants written into housing deeds, and racial steering by real estate agents (McWilliams 1964, Sugrue 1996, Kruse 2005, Lassiter 2006). As previous chapters have shown, local, state, and federal policies also worked to establish and perpetuate segregation along race and class lines. Through actions like the passage of racial zoning ordinances (Chapter 2), the generation of neighborhood investment ratings through the Home Owners Loan Corporation (Hillier 2005), and official acquiescence to violent activity in protection of homes and neighborhoods (Hirsch 1983), governments pursued policies that limited the mobility of minority households (Ross 2008) between 1900 and 1940.
Around the time of the Second World War, patterns and strategies of segregation began to change. Segregation levels within cities leveled off, but ghettos grew much larger when minority populations increased in cities outside of the South (Cutler, Glaeser, and Vigdor 1999). Similar to previous decades, white homeowners utilized a variety of mechanisms to bar minorities and renters from moving to their communities. Organizing collectively through homeowners’ associations, white homeowners controlled government decision making on matters such as the razing of slums, the rebuilding of downtowns, the placement of public housing, and zoning decisions that concentrated negative externalities in poor and minority neighborhoods.

However, as Chapter 4 revealed, starting slowly during the 1940s and then more rapidly during the 1950s and 1960s, white homeowners began to see their exclusive political control chipped away. The massive influx of wartime workers dramatically changed the racial and socioeconomic makeup of many large cities. In the 157 cities that had populations of at least 50,000 in 1940, the white population share declined about eight percentage points between 1940 and 1970 (from 90 to 82). By 2011, the white share of these cities decreased drastically to 52%. However, the share of renters also declined during this period, as homeownership rates expanded. At the same time, black and Latino Americans’ sustained battle for civil, economic, and political rights gained ground. As racial minorities began to contest and even win political representation, the open housing movement brought the possibility of neighborhood integration, and civil unrest coursed through many large cities. This period became fraught with uncertainty

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98 I only have time series data on homeownership rates for 60 cities. In these places, the share of homeowners rose from 35% in 1940 to 48% in 1970. Nationwide, the homeownership rate expanded from 43.6% to 63% during this period (Bureau of the Census, Historical Statistics of the United States, Colonial Times to 1970). http://www.census.gov/library/publications/1975/compendia/hist_stats_colonial-1970.html
and fear for many whites placed an increasingly high value on segregation as they joined the ranks of homeowners.

Cutler, Glaeser, and Vigdor (1999) provide evidence that since the 1990s, white homebuyers’ willingness to pay a premium for homogenous neighborhoods is the central factor perpetuating segregation. Overt racism has decreased dramatically over the last several decades (Schuman et al., 1997), but whites continue to express a preference for same race neighbors (Charles 2003) and minority neighborhoods continue to be perceived as having poor-quality amenities (Bobo, Kluegel, and Smith 1997, Ellen 2000, Emerson, Chai, and Yancey 2001, Krysan 2002, Bayer, Ferreira, and McMillian 2007). Ellen (2000) shows that a growing black population leads whites to leave neighborhoods and/or be unwilling to enter them. Card, Mas, and Rothstein (2008) report a distribution of tipping points (the size of the minority population that affects white population flows) ranging from 5% to 20%. Once a neighborhood reaches the tipping point, it quickly becomes predominantly inhabited by racial and ethnic minorities. White preferences for homogeneity are undoubtedly enhanced by persistent discrimination in the real estate and mortgage industries which limit minority access to some neighborhoods (Pager and Shepherd 2008, Gaslter and Godfrey 2005, Bobo 2001, Farley et al. 1994, Bobo and Zubrinski 1996).

However, while white preferences for white neighbors help to make sense of the fact that whites live in different neighborhoods than nonwhites, they do not help to clarify why whites live in different cities. Why, even as neighborhoods have grown more integrated, have cities become less so? The answer is politics and political control. Boustan (2010) finds that residents are willing to pay a 7% premium on housing in order to live in a higher-income suburb, in part, to gain access to higher school quality and lower property tax rates. Baum-Snow and Lutz
(2011) and Lassiter (2006) provide evidence that court-ordered integration of city schools led some white parents to seek out homogenous, suburban school districts. Kruse (2005) shows that when Atlanta’s whites lost segregation battles and political control, many chose suburban homes. I build on the findings of these scholars to show that suburban sorting along race and class lines is also linked to central city elections of minority mayors, larger city budgets and a greater share of spending on police.

The rapid increase in the population of the suburbs during the post-war period was mostly not the result of white flight. Rather, rising incomes, low-cost federally-backed mortgages, the lucrative federal mortgage deduction, new housing construction in suburban tracts, and an extensive highway system all worked to bring residents to the periphery (Gotham 2000, Nall forthcoming). Yet, in the early decades of the post-war period, suburban living was much more accessible to whites and homeowners than to people of color and renters (Kruse and Sugrue 2006, Jackson 1985). This pattern eventually changed, allowing many racial minorities and renters live in suburban communities today (Frasure-Yokely 2016). However, as Briffault (1990) explains, “the increased heterogeneity of suburbia as a whole is usually not matched by a greater diversification within particular suburbs. There are now more poor and working-class people, more minorities and more industrial and commercial sites in suburbia. But poorer, working-class or black suburbanites are likely to live in different jurisdictions separate from those inhabited by affluent or white suburbanites” (p353). These trends have converged to increase divisions along race and class lines across city lines (C.S. Fischer et al. 2004, M.J. Fischer 2008).

In previous decades, processes of consolidation and annexation made city boundaries malleable so that those moving away from the center of the city would have resided within city
limits (Teaford 1979). However, in the post-war period, state annexation laws changed and political boundaries ceased to keep pace with residential spread (Briffault 1990). As a result, the number of incorporated municipalities in metropolitan areas grew and suburbs gained population, economic activity, and political power (Danielson 1976, Miller 1981, Burns 1994).

As independent municipalities, suburbs have the power to regulate land use for all parcels within their borders. Local governments employ land use regulations to manage the character of their community. Consequently, regulatory environments vary significantly from place to place. Cities are capable of enacting minimum lot sizes so that all development must be located on a certain acreage of land, requiring developers to preserve open space in their development, determining the number of multi-family units that will be allowed within city limits, requiring developers to pay a share of infrastructure improvements associated with new development, offering short/long review periods for zoning changes and building permits, and involving few or many local actors in the approval and planning process. Gyourko et al. (2008) find that there is a strong, positive correlation between different regulations. Specifically, if a city regulates in one area, it is significantly more likely to regulate in other areas as well. Einstein et al (2017) provide evidence that the accumulation of regulations reduces the supply of multi-family housing by allowing residents opposed to development to delay the process and file lawsuits. Gyourko et al (2008) also find that community wealth is positively related to regulatory environments. Places with high median home values, more college-educated residents, and higher incomes are most likely to police land use.

Public Opinion on Local Spending

In order for political preferences to be related to population sorting, it must be the case that different groups have different orientations toward government spending and different
policy priorities. At the national level, the gap between white and nonwhite support for
government programs like social services, education, and assistance to the poor, as well as
beliefs about the optimal size of government is persistent, systematic, and substantively large
Dawson 1994, Bowler and Segura 2011). A related, but distinct gap between high and low
socioeconomic status individuals also exists (Gilens 2005, Bartels 2008). Whites and the
affluent tend to favor limited government while people of color and those of lower
socioeconomic status are more supportive of spending and intervention. In an overview of this
large literature, Hutchings and Valentino (2004) explain that the black/white opinion gap
typically ranges from 35-50 points on matters dealing with race (like affirmative action and
government aid to minorities), and more than 20 points on policies that are not explicitly racial,
like government spending on welfare, social services, and education (see also Winter 2006,

There is less research on these questions at the local level, but scholars have found large
racial and socioeconomic status divides with regard to candidate choice (Hajnal and Trounstine
2013b, Hajnal 2009), satisfaction with city services (Hajnal and Trounstine 2013a, Van Ryzin et
al. 2004, Durand 1976), and trust in government (Rahn and Rudolph 2005, Marschall and Shah
2007). Hajnal and Trounstine (2013b) find that the largest divide in support for mayoral
candidates is black versus white residents, with the divide between Latinos and whites close
behind. The divide between Asians and whites is smaller, but persistent, as is the divide between
high and low socioeconomic status individuals. In an analysis of the determinants of service
evaluations among local residents, Hajnal and Trounstine (2013a) find that race stands out as the
most powerful predictor. Again, the largest divides are between black and white and Latino and
white respondents, but class divides are also significant. In sum, white and wealthy residents tend to have more conservative spending preferences and support different candidates than do minorities and the poor at both the local and national levels. When political patterns favor nonwhite and poor interests, white and upper-class residents are inclined to select different localities. In the next sections, I provide evidence of these political contributors to segregation.

**Measuring Suburbanization, A New Approach**

In order to show that political outcomes affect segregation across city lines, I use a segregation measure that can be decomposed into within-city and across-city components. This measure allows me to take advantage of different predictions depending on the level at which segregation occurs and to control for aggregate preferences for homogeneity. In some metropolitan areas, whites and homeowners tend to be segregated from nonwhites and renters in different neighborhoods (indicating segregation at a low level of geography). In others, race and class sorting is more prevalent across city lines (indicating segregation at a higher level of geography). If a city increases its budget, there is no reason to believe that this would induce residents to sort into different *neighborhoods* but, I argue, it could lead to sorting into a different *city*.

While households may choose residential locations that result in more homogenous neighborhoods for a variety of reasons, only cross-city segregation ought to be affected by the *total* bundle of public goods provided by the city and the election of city officials. Because different racial and economic groups have different preferences for local representatives and policies, when budgets or election outcomes are less favorable to white and homeowner preferences, these residents should be more likely to sort into residential locations outside of city
boundaries.99 We most commonly think of segregation across city lines as a process of suburbanization, but sorting between suburbs is another version of the same pattern. The result should be an increase in the share of metropolitan segregation across cities as opposed to within them.

To determine whether or not city political patterns favoring nonwhite and renter interests affect metropolitan segregation, I constructed a dataset measuring segregation in primary metropolitan statistical areas from 1980-2011 GeoLytics’ Neighborhood Change Database (NCDB) and the 2007-2011 American Community Survey. These data allowed me to create a panel dataset measuring segregation at the census-tract level for each metropolitan area. To measure segregation, I use the $H$ Index described in Chapter 1. The $H$ Index allows for decomposition of within-city and across-city components.100 It measures the evenness of dispersal of groups across geographic units (in this case, Census tracts, cities, and metropolitan areas).

The groups I use to calculate the $H$ Index here are white/nonwhite, renter/homeowner, and wealthy/non-wealthy. Since 1980, the Census has tabulated the number of residents in each Census tract that self-identify as racially white and ethnically not-Latino; these individuals are classified as whites in my analysis. All other racial/ethnic combinations are classified as

99 There is no evidence that the inverse is true. When budgets favor white/wealthy preferences, poor and minority residents have not been found to move to communities that prioritize their demands and needs. For instance, Levine and Zimmerman (1999) investigate the potential for states’ welfare programs to act as magnets for the poor. They find little support for this hypothesis. The process of gentrification – where affluent residents return to the central city – is another scenario that could lead to movement among poor residents. Here too, scholars have found no evidence that gentrification leads poor households to leave their housing units (Vigdor, Massey, Rivlin 2002). The most likely explanation, of course, is that it is whites and the wealthy who have had the greater ability to choose where they live. Beyond this, political outcomes are typically much more responsive to the preferences of whites and the wealthy (Hajnal 2009; Gilens 2014).

100 The approach is similar to the one taken by C.S. Fischer et al. (2004) who analyze trends over time in the level at which segregation occurs. In contrast to C.S. Fischer et al. (2004), I seek to determine whether such patterns are related to city policy choices, not just time.
nonwhites. The Census gathers tenure information on all occupied housing units, noting whether they are rented or owned. The share of units rented versus owned comprises my measure of segregation. Finally, the Census reports income categorically, not continuously, so wealthy refers to the share of families in each census tract with incomes above particular thresholds for each census year. These thresholds were determined by calculating the average family income for all Census tracts in the United States for each Census year. The wealthy threshold represents the income bin with its starting point closest to the 90th percentile of the distribution. The thresholds for each census year are: $35,000 for 1980, $75,000 for 1990, $100,000 for 2000, and $150,000 for 2011. All families with this amount of income or more are included as wealthy.

As explained in Chapter 1, the $H$ Index measures the degree to which the diversity of subunits differs from the diversity of the larger unit, expressed as a fraction of the larger unit’s total diversity and weighted by the subunit’s share of the total population. For each census year, I calculate an $H$ Index for all cities within a metropolitan area, denoted $H_{m,c}$ and all tracts within each city, denoted $H_{c,t}$. These $H$ Indices reveal how diverse each census tract is given the diversity of the city and how diverse each city is given the diversity of the metropolitan area.

\[
H_{m,c} = \sum_{c=1}^{C} \frac{P_c}{P_m} \left( \frac{E_m - E_c}{E_m} \right)
\]

\(101\) I use family as opposed to household income because the NCDB does not report household income at the tract level.

\(102\) Census tracts range from 0 to 100% wealthy, with a mean of 18%, a median of 13%, and a standard deviation of 16%.

\(103\) Census tracts are perfectly nested within states and counties. However, in some cases tracts cross city lines. In these cases, GeoLytics assigned the tract to the city containing the largest share of the tract population. In 2011, tracts are weighted by the share of population contained in each city. Observations are unique when defined by year, tract, city, county, and metropolitan area. Tracts located in unincorporated areas within a metropolitan area are combined as a single unincorporated unit. Tracts outside of metropolitan areas are not included in the analysis. I use Metropolitan Statistical Areas and where possible, Primary Metropolitan Statistical Areas as the highest level of aggregation (not Consolidated Metropolitan Statistical Areas which are much larger).
\[ H_{c,t} = \frac{T}{\sum_{t=1}^{T} P_c (E_c - E_t)} \]

\[ P \text{ represents total population of the geography } t, \ c, \text{ or } m. \]

These two indices can be combined produce a total \( H \) Index for the metropolitan area which is equal to the \( H \) Index calculated for the metropolitan area at the tract level, \( H_{m,t} \).

\[ H_{m,t} = \sum_{t=1}^{T} \frac{P_t}{P_m} \left( \frac{E_m - E_t}{E_m} \right) = H_{m,c} + \sum_{c=1}^{C} \left( \frac{P_c}{P_m} \right) \left( \frac{E_c}{E_m} \right) H_{c,t} \]

I analyze the percentage of total metropolitan area segregation that can be attributed to cross-city segregation as opposed to within-city segregation. I have one observation per metropolitan area in 1980, 1990, 2000, and 2011. The dependent variable in my analyses is the share of total segregation in a metropolitan area that is determined by segregation across cities versus within them:

\[ \text{share\_across} = \frac{H_{m,c}}{H_{m,t}} \]

My argument is that city politics affects segregation patterns. Because I only have one measure of segregation for each metropolitan area, I analyze the effect on segregation of city politics in the city with the largest population in the metropolitan area. For example, in the Detroit-Warren-Livonia metropolitan area, I estimate the relationship between Detroit’s city expenditures and the share of metropolitan segregation that is attributed to whites living in different cities than nonwhites (which happens to rise from 51% to 88% between 1970 and 2011). Table 5.1 provides aggregate descriptive statistics for the central cities versus non-central cities in my analysis as of 2011.
Table 5.1: Central vs. Non-Central Cities, 2011

<table>
<thead>
<tr>
<th></th>
<th>Central Cities</th>
<th>Suburbs</th>
</tr>
</thead>
<tbody>
<tr>
<td>% White</td>
<td>58%</td>
<td>73%</td>
</tr>
<tr>
<td>% Black</td>
<td>19%</td>
<td>9%</td>
</tr>
<tr>
<td>% Latino</td>
<td>16%</td>
<td>12%</td>
</tr>
<tr>
<td>% Asian</td>
<td>4%</td>
<td>4%</td>
</tr>
<tr>
<td>% in Poverty</td>
<td>21%</td>
<td>12%</td>
</tr>
<tr>
<td>% Renters</td>
<td>47%</td>
<td>32%</td>
</tr>
<tr>
<td>Median HH Income</td>
<td>$42,796</td>
<td>$61,670</td>
</tr>
<tr>
<td>% Wealthy</td>
<td>9%</td>
<td>13%</td>
</tr>
<tr>
<td>N</td>
<td>323</td>
<td>4,145</td>
</tr>
</tbody>
</table>

The table reveals that suburbs are whiter, wealthier, and filled with more homeowners than central cities.

In Chapter 4, I argued that in the postwar period, white homeowner neighborhoods felt threatened by increasing electoral contestation by minority candidates and the successes of the open housing movement. Public opinion surveys reveal that racial and income groups are divided over the proper size of government. Further, studies have shown that white opinion on government spending is powerfully shaped by attitudes toward the group perceived to be the beneficiaries of the spending (Nelson and Kinder 1996). During the 1960s and 1970s many central cities became associated with rising crime rates (Wilson 1987). Today, whites link crime and criminality with blackness (Peffley Shields, and Williams 1994; Gilliam and Iyengar 2000, Gilliam et al 1996). For wealthy, white, homeowners with the ability to choose suburban living, it is plausible that the election of minority mayors, increases in the municipal budget, and shares of the budget going toward policing in central cities all may have played a role in encouraging segregation across city lines.

To analyze these relationships, I regress the share of metropolitan area segregation determined across cities on independent variables capturing political and policy control in the
central city. The first is a variable noting whether or not the central city had a Minority Mayor (African American, Hispanic, or Asian) at any point in the decade prior to the year in which segregation is measured. These data are from a number of different sources, including Vogl (2014), Hopkins and McCabe (2012), and my own research using websites and newspaper accounts of elections. The variable is a dummy variable coded 1 if the central city had a minority mayor and coded 0 if the mayor was white in all years of the prior decade. Next I add two spending measures: inflation-adjusted Direct General Expenditure Per Capita and the proportion of the city budget spent on Policing. These variables come from the Census of Governments State and Local Government Finance files from 1977 to 2012. The data are collected in years that end with 2 and 7 and I used linear interpolation to generate estimates of city expenditures in 1980, 1990, 2000, and 2011 to match the Census population data. I add the natural log of the Population as a control because large cities have different spending patterns than small cities and size may affect segregation patterns by offering residents greater ability to sort themselves into like neighborhoods. Finally, I add a measure of the Violent Crime Rate in the central city to capture local conditions to which both policy and movers might have reacted. These data represent 209 metropolitan areas and include a total of 618 observations. Summary statistics are included in appendix Table A5.1.

There is an obvious endogeneity problem with the assertion that city elections and budgets can affect residential locations. That is, we know that as home-owning whites choose to

105 Available at http://www2.census.gov/pub/outgoing/govs/special60/. Filename is “IndFin_1967-2012.zip”
106 These data are from the Department of Justice Uniform Crime Reporting Program: Offenses Known and Clearances by Arrest reports for 1980, 1990, 2000, and 2011.
locate in the suburbs as opposed to central cities, the remaining central city population will have different policy and candidate preferences. The success of black mayoral candidates in this scenario is what Friesema (1969) called the “Hollow Prize.” To attempt to mitigate problems this pattern might cause for the analysis, the mayoral data are measured in the decade prior to the segregation data and all of the remaining measures are lagged 10 years. Additionally, my analyses include fixed effects for metropolitan area, so that the estimated effects of politics are within, rather than across areas.

Is it the case that politics favoring nonwhite and poor preferences in central cities is associated with additional cross-city segregation? In short, yes. Table 5.2 presents the results.
Table 5.2: Effect of City Spending Patterns on Share of Metropolitan Segregation Attributed to Cross-City Segregation

<table>
<thead>
<tr>
<th></th>
<th>Racial Segregation</th>
<th>Renter Segregation</th>
<th>Wealth Segregation</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>$\beta$</td>
<td>SE</td>
<td>$P&gt;</td>
</tr>
<tr>
<td>Politics favoring minorities &amp; renters</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Minority Mayor</td>
<td>0.032</td>
<td>0.01</td>
<td>0.01</td>
</tr>
<tr>
<td>Direct General Expenditure Per Cap</td>
<td>0.052</td>
<td>0.01</td>
<td>0.00</td>
</tr>
<tr>
<td>% Policing</td>
<td>0.723</td>
<td>0.14</td>
<td>0.00</td>
</tr>
<tr>
<td>Controls</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Population (logged)</td>
<td>0.046</td>
<td>0.03</td>
<td>0.12</td>
</tr>
<tr>
<td>Crime Rate</td>
<td>0.566</td>
<td>0.13</td>
<td>0.00</td>
</tr>
<tr>
<td>Constant</td>
<td>-0.380</td>
<td>0.35</td>
<td>0.28</td>
</tr>
<tr>
<td>Number of observations</td>
<td>618</td>
<td>618</td>
<td>618</td>
</tr>
<tr>
<td>Number of MSAs</td>
<td>209</td>
<td>209</td>
<td>209</td>
</tr>
<tr>
<td>$R^2$ (within)</td>
<td>0.211</td>
<td>0.035</td>
<td>0.078</td>
</tr>
</tbody>
</table>

Note: OLS Regressions, fixed effects for metro area included in all models
Minority mayor refers to previous decade, all other measures lagged 10 years

Table 5.2 tells a consistent story. When central cities elect minority mayors, when the spend more money, and when a larger proportion of their budget is spent on policing a larger proportion of the metropolitan area’s total segregation along race and class lines is accounted for across cities rather than within them. In short, more liberal policy in the central city leads to more segregation across city lines while more conservative spending patterns in center cities lead to less. As Table 5.1 makes clear, non-central cities are whiter, wealthier, and more heavily populated with homeowners than central cities. This suggests that it is wealthy whites who make the choice to reside outside of the central city when policies favoring poor and minority interests are enacted. Conversely, wealthy white residents choose to remain in the central city when budgets are more austere. Overall, the results are strongest and most consistent for racial segregation. As has been true throughout this book, race is the clearer dividing line.

With regard to racial segregation in particular, the results are powerful. If we compare, on the one hand, a city with a white mayor in the 25th percentile of the distribution on per capita spending and police expenditure, to one with a minority mayor and in the 75th percentile on the
spending measures, the metro-area racial segregation accounted for across cities increases from 35% to 46%. This is equivalent to the difference between the patterns of segregation in the Wichita, Kansas area \( (share\_across\_race = 0.355) \), and the Waco, Texas area \( (share\_across\_race = 0.468) \) or the Charlotte, North Carolina area \( (share\_across\_race = 0.358) \) and the Portland, Oregon area \( (share\_across\_race = 0.465) \).107

**Land Use Regulation and Suburban Segregation**

A number of scholars have emphasized the increasing role of land use regulation in the maintenance of segregation (Rothwell 2011, Pendall 2000, Orfield 2002). Scholars have often argued (although not demonstrated), that this tendency has generated a shift from the predominance of racial segregation toward class segregation (Mieszkowski and Mills 1993, Fischel 2004). The work that empirically investigates the relationship between land use regulation and segregation (e.g. Rothwell and Massey 2009, Glaeser and Ward 2006, Berry 2001) has not made a distinction between segregation within cities and segregation across them. This is an important omission, because homogenous suburban municipalities ought to be able to utilize land use regulation much more effectively than homogenous neighborhoods within cities, as municipalities wield more political power. If my argument is correct, that whites and homeowners seek to use local policy to protect home values and control the distribution of public goods, then metropolitan areas with more intense land use regulation in the suburbs should also have greater race and class segregation across cities. This is exactly what I find.

To provide evidence of this link, I use the Wharton Residential Land Use Regulatory Index (WRLURI) developed by Gyourko, Saiz, and Summers (2008). This index is built from a 2006 survey of local governments regarding the characteristics of the regulatory process, rules of

---

107 These statistics are for the year 2011.
local residential land use regulation, and regulatory outcomes. These data were combined to measure the, “stringency of the local regulatory environment in each community” (Gyourko et al. 2008, p3). The survey contains data for more than 2,700 municipalities. For each metropolitan area, I determined the average WRLURI for all suburban communities. I then calculated the difference between the center city WRLURI and suburban WRLURI. This difference measure provides an estimate of the degree to which suburban municipalities have more stringent land use regulations than the central city for each metro area. I combined these data with the segregation measures described in the previous analyses – the share of the metropolitan area segregation accounted for across cities rather than within them. The WRLURI data are only available at one point in time, so I analyze the correlation between each region’s Share Across and the WRLURI Difference in 2011 using OLS regression. Figure 5.3 displays the marginal effect of suburban land use regulation stringency on race, renter, and wealth segregation across cities.

**Figure 5.1: Correlation Between Suburban Land Use Regulation Stringency & Segregation Across Cities**

![Graph showing correlation between suburban land use regulation stringency and race segregation](image1.png)

![Graph showing correlation between suburban land use regulation stringency and renter segregation](image2.png)
Suburban land use controls are significantly related to the degree to which segregation is accounted for across rather than within cities in metropolitan areas. The graphs also make clear that there is no difference between the effects of land use regulation on race versus class segregation. They are equally effected.

I’ve argued that white homeowners institutionalized segregation in order to protect their public goods and property values. The result of these policies in the post-war period has been to increase the disparity in service provision across cities. To show this, I draw on the same spending and segregation data described in the previous section. First, I aggregate all inflation-adjusted expenditures per capita by metropolitan area, for each year. This total expenditures per capita variable represents the collective dollars spent by municipal governments in a metropolitan area. I divide each municipality’s expenditure by this total to generate the share of metropolitan spending accounted for by each city. I calculate a similar measure for population, generating the share of metropolitan population accounted for by each city. The ratio of these two quantities, the Spending Equity Ratio, is my first dependent variable.
\[
Spending\ Equity\ Ratio_j = \frac{E_j}{P_j}\frac{E}{E}
\]

Where \(E_j\) is the per capita expenditure by city \(j\), \(E\) is the total expenditures in the metropolitan area, and \(P_j\) is the share of the metropolitan population represented by city \(j\).

This ratio measures the disparity between the percentage of the population represented by a city and the percentage of total resources received by that population. If resources are distributed exactly equally across the population, the ratio takes a value of 1; values less than 1 indicate that the community receives fewer resources than its population size would predict, and values greater than 1 indicate an abundance of resources. Between 1972 and 2012, this measure averaged 0.4 for central cities and 2.5 for suburbs. Suburban residents receive two and a half times the resources that their population share justifies, while central city residents receive less than half of the amount of resources that their population share justifies. This is the case despite the fact that central cities spend more, on average, per resident than do suburbs. Unsurprisingly, communities with larger populations of racial and ethnic minorities and more renters have a lower Spending Equity Ratio. Regressing the Spending Equity Ratio on the share of the city that is Nonwhite and the share that Rents their homes, including fixed effects for years and errors clustered by metropolitan area, yields Figure 5.2.

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108 Calculated for all cities with more than 1,000 residents and all metropolitan areas in which I have data on more than one city.
Given that cities with more homeowners and more white residents are more likely to garner a larger share of total resources spent in metropolitan areas, we should also expect that metropolitan areas with more segregation along race and class lines will witness more variation in spending from city to city. This is exactly what I find. My dependent variable in this analysis is a measure developed by Rhode and Strumpf (2003) called the coefficient of variation (CV). The CV captures the degree of heterogeneity in spending for a metropolitan area. It is calculated as the ratio of the standard deviation of spending to the mean of spending.

\[ CV_{msa} = \sqrt{\frac{\sum_j P_j (E_j - M)^2}{M}} \]

Where \( E_j \) is the per capita expenditure of city \( j \), \( M \) is the mean per capita expenditure for all cities in the metropolitan area, and \( P_j \) is the share of the total metro area population in city \( j \). Rhode and Strumpf (2003) use this measure (calculated for the entire nation, not by metropolitan area) to show that over time, governments across the United States have grown more alike in their spending. I find the same – the mean CV declined about 17.5% between 1972 and 2012, from
1.32 to 1.09. However, more segregated metropolitan areas changed more slowly than less segregated areas. To see this, I regress the CV on racial, renter, and wealth segregation across cities ($H_{m,c}$). I add fixed effects for year to account for the declining time trend. Table 5.3 presents the results.

<table>
<thead>
<tr>
<th></th>
<th>Column 1</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>$\beta$</td>
</tr>
<tr>
<td>Racial Segregation Across Cities</td>
<td>1.02</td>
</tr>
<tr>
<td>Renter Segregation Across Cities</td>
<td>1.83</td>
</tr>
<tr>
<td>Wealth Segregation Across Cities</td>
<td>-0.086</td>
</tr>
<tr>
<td>Constant</td>
<td>1.295</td>
</tr>
</tbody>
</table>

Note: Fixed effects for year included but not presented.

The data reveal that metropolitan areas with more racial and renter segregation across cities – that is, where whites/ nonwhites, renters, and owners tend to live in different municipalities, we see more heterogeneity in municipal budgets. Combined with the results presented in Figure 5.2, we can see that communities with large populations of renters and racial minorities in segregated metropolitan areas have access to a much smaller share of the total dollars spent by local governments. Segregation is correlated with inequality; exactly as its architects intended.

**Conclusion**

Even after decades of progressive change in racial attitudes and growing concern over income inequality, America remains a segregated nation. Increasingly, segregation along race and class lines has occurred among cities rather than within them. I have argued that city politics has played a role in this change. Overall, whites and the wealthy individuals seek smaller, less
active local governments. When city policy does not favor their interests, these types of residents are more likely to trade homogenous neighborhoods within cities for homogenous cities instead. When central cities in metropolitan areas have more active policy agendas, when they spend more on community development, and when property taxes are higher, we see greater segregation across city lines. Whether this is because white homeowners leave central cities or never move in, the result is a higher degree of separation between cities in metropolitan areas. These patterns become fixed by suburban land use regulations that shape the character and structure of these communities.

Chapter 5 revealed that suburbanization has produced inequalities in spending patterns from city-to-city and I have argued that this was precisely the goal segregations’ proponents. But segregation has another set of consequences that we might say were unintended; consequences for the polarization of politics at both the local and national levels. This chapter and the next make a case for this claim.

Many United States cities function without regular problems. They have well-kept roads, sewers that never overflow, and public parks with swing sets and restrooms. Others, however, struggle to maintain balanced budgets, fail to adequately equip or staff their police forces, and offer little assistance to residents of limited means. What explains these differences? One obvious answer is simply wealth. The history of suburbanization detailed in previous chapters suggests that whites and homeowners have ensconced themselves in homogenous municipalities. Given the strong correlation between race, property ownership, and wealth, income differences across communities could explain much of this variation. Except they don’t. Although the relationship is statistically significant, the correlation between city level median income and per capita direct general expenditure is only about 0.037 in my data.

At a very basic level, the generation of public goods requires cooperation. Why is it then that some cities find it more difficult to cooperate than others? Scholars have identified racial/ethnic diversity and changes in diversity as prime suspects in determining under-provision of public goods (e.g. Alesina et al. 1999, Hopkin 2009). Nonetheless, diversity alone does not generate a lack of cooperation in city politics. It is only when cities are also segregated along racial lines that we see lower public goods provision. Segregated places are politically-polarized places. The gulf between whites and minorities in segregated places makes it less likely that
they will find common ground in support of a bundle of taxation and expenditures, driving down collective investment. It is segregation, not diversity that contributes to inequality.

I provide evidence for this argument using election data from 25 large cities between 1990 and 2010 and demographic data matched to city finance data from 1982 to 2012 in more than 3,000 cities. To handle the problem of endogeneity in the finance analysis, I instrument for segregation using the number of waterways in a city. I find that segregated municipalities spend less on a wide range of public goods. This lower spending has consequences. In the final section of the chapter, I find that racially segregated cities also have more sewer overflows per capita.

I focus here (and in the next chapter) on racial segregation alone. A series of tests revealed that renter and wealth division do not produce similar results. These findings are bolstered by the historical evidence which indicates that it is race and not class division that generates the starkest conflicts in city politics. Throughout, I control for indicators of wealth and homeownership to ensure that the results are not conflating race and class.

**Literature and Hypotheses**

Local politics, more so than national or state politics, concerns battles over space. This is because local governments control the location of negative and positive externalities (like pollution-producing factories or public parks) and also because many of the functions that local governments provide are allocational in nature (e.g. where police officers will be deployed and which roads will be repaved). One of the few powers that is reserved nearly exclusively by local government is that of zoning or planning. As a result, geographic areas within cities (e.g. neighborhoods) are frequently important actors in municipal politics.
At the same time, neighborhoods in America remain highly segregated along racial lines (see Chapter 1). Although neighborhood racial segregation has lessened in recent decades, today, the typical white American lives in a neighborhood that is overwhelmingly white, while Black, Latino, and Asian Americans live in substantially more integrated places (Logan and Stults 2011). These patterns have created stark divides between white and nonwhite communities (Enos 2011). When a city is residentially segregated by race, issues cleave along racial and not just spatial lines (Massey and Denton 1993).

Furthermore, in segregated cities, divisions across racial groups are likely to be exacerbated because the political priorities and opinions of racial groups are likely to be more divergent than they are in integrated places. Neighborhood racial isolation is associated with a high degree of racial intolerance, resentment, and competition among all racial groups (Oliver 2010, Chapter 7). This correlation is due to both self-selection and interpersonal interactions (Rodden 2010). When deciding where to live, people with racially intolerant attitudes often seek same race neighbors (Charles 2003, Boustan 2012) either because they want to minimize contact with other race individuals (Massey and Denton 1993) or because they associate other race neighborhoods with poor neighborhood quality on dimensions such as schools, crime, and property values (Helper 1969, Ellen 2000, Bayer, Ferreira, and McMillian 2007, Krysan et al. 2008). However, living in different types of neighborhoods may also change individuals’ perspectives. In integrated neighborhoods, regular, casual interaction may work to counteract dominant, negative stereotypes (Allport 1954, Oliver and Wong 2003). The result of both population sorting and/or neighbors’ influence is that individuals who live in homogeneous

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109 African Americans, Latinos, and Asians live in neighborhoods that are comprised of 22%-46% of their own group.
neighborhoods are more likely to harbor negative stereotypes about other groups (Oliver 2010, Oliver and Wong 2003).

Yet, at higher levels of geography (e.g. in cities, counties, and metropolitan areas) it is integration or diversity that correlates with intolerance, prejudicial attitudes, increased racial tension, less cooperative behavior, and lower spending on public goods (Key 1949, Glaser 1994, Branton and Jones 2005, Taylor 1998, Campbell et al. 2006, Alesina et al. 1999, Vigdor 2004, Hopkins 2009, Poterba 1997). As a result, racial competition, racial resentment, and racial conservatism are positively correlated with homogeneity at the neighborhood level, but negatively correlated with homogeneity at the city level (see Oliver 2010 for a detailed account of these conflicting patterns). A severely segregated city is one that is diverse overall and has many homogeneous neighborhoods – both characteristics which point towards a high degree of racial conflict.

This higher degree of racial conflict in segregated cities has obvious political implications. Levine (2014) has found that racial segregation is strongly predictive of partisan political divisions in metropolitan areas and that these political divides result in an unwillingness to cooperate on metropolitan-wide policy solutions. We can expect a similar pattern at the city level. First, in segregated cities, racial groups should be more divided with respect to political priorities. Second, diverse but divided cities may be less able to come to a consensus about the production of basic government services, and thus, will be less supportive of public goods provision. This second hypothesis speaks directly to the claim that diversity drives down

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110 There are a few exceptions to this pattern. A handful of scholars have not found that diversity increases tolerance at the neighborhood level. Gay (2006) and Oliver and Mendelberg (2000) find no relationship between neighborhood racial context and racial attitudes. Enos (2016) shows that that homogeneity decreases voter turnout among whites and also decreases support for conservative candidates. Cho, Gimpel and Dyck 2006 find that homogeneity decreases turnout among Asian Americans in some cases, but increases it (or has no effect) in others. Leighly and Vedlitz (1999) find that homogeneity correlates positively with turnout for whites.
collective investment (Alesina et al. 1999). As Benoy Jacob (2013) has persuasively argued, not all diversity is equivalent. When whites and nonwhites live in the same city, the pattern of residential integration ought to factor into expectations about public goods expenditures. White and nonwhites may live as next door neighbors, but they also may not. If segregation represents preferences or attitudes that are incompatible with collective investment, then uneven distribution of groups, not diversity per se, ought to correlate with lower public goods spending.

**Segregation and Political Polarization**

In municipal politics, vote patterns and policy priorities are shaped by racial cleavages more so than any other demographic division (Hajnal and Trounstine 2013a, Hajnal and Trounstine 2013b, Hajnal and Trounstine 2014). While ideology, partisanship, and class all play important roles in determining vote choice and support for municipal administrations, conflicts among racial groups are predominant. If segregated cities are more politically polarized, these racial divides should be most pronounced in places with a high degree of residential segregation. To determine whether or not this is the case, I analyze the relationship between residential segregation patterns and racial divisions in mayoral elections in the nation’s largest cities between 1990 and 2010.

To estimate the effect of segregation on racial polarization, I use a dataset compiled by Hajnal and Trounstine (2014) that measures support for winning mayoral candidates across different racial groups in primary and general elections in large cities. The data include 91 separate contests from 25 cities. Vote by race data were compiled from a combination of exit polls, pre-election surveys, homogenous precinct analyses, and ecological inference.\(^\text{111}\)

\(^{111}\) These data are described completely in Hajnal and Trounstine (2014).
Summary statistics and a list of cities included in the analysis are provided in appendix Tables A6.1 and A6.2.

For each election, I calculated the difference in support for the winning candidate between black and white voters, Latino and white voters, and black and Latino voters. The dependent variable in this analysis is the absolute value of the largest difference in support for the winning candidate between any two racial groups. For instance, in Philadelphia in 2003, exit polls reported that 24% of white voters supported the winner, John Street, compared to 88% of black voters, and 47% of Latino voters. In this election the black-white divide was 0.64, the Latino-white divide was 0.23, and the black-Latino divide was 0.41. Therefore, the dependent variable takes the value of the black-white divide, 0.64. In 62 of the 91 contests, the largest divide was between black and white voters, in 13 contests it was the divide between Latino and white voters, and in 16 contests the largest divide was between black and Latino voters.112 The distribution of racial divides across cases is listed in appendix Table A6.2.

As described in Chapter 1, my primary independent variable is a measure of segregation called Theil’s $H$ Index. The $H$ Index measures the degree to which the diversity in each neighborhood differs from the diversity of the city as a whole, expressed as a fraction of the city’s total diversity and weighted by the neighborhood’s share of the total population.

$$
H = \sum_{n=1}^{N} \frac{P_n}{P_c} \left( \frac{E_c - E_n}{E_c} \right)
$$

Where $P$ represents the total population of neighborhood $n$ or city $c$ and $E$ is the entropy of $n$ or $c$. $H$ varies between 0, where all neighborhoods have the same composition as the entire city, and 1 where all neighborhoods contain only one group.

112 As an alternate measure of division, I took the difference in support between white voters and the average of support among black and Latino voters. The results are extremely similar.
I calculated the $H$ Index for all United States cities using Census-tract level demographic data from the 1980, 1990, and 2000 Censuses of Population and Housing and from the 2011 American Community Survey. To start, I use four groups in the calculation of entropy: white (non-Hispanic), black (non-Hispanic), other (non-Hispanic), and Hispanic/Latino. I then combine Blacks, Hispanics, and Other races into a single nonwhite group for comparison. For reference, the mean $H$ Indices for each city in the analysis are shown in appendix Table A6.2.

I include a number of control variables in addition to the $H$ Index. One of the primary arguments in the literature is that racially and ethnically diverse populations will have heterogeneous political preferences which then drives low spending on public goods. If this is the case, we should see more racial polarization in the vote as diversity rises. Thus, I include the proportion of Blacks, Latinos, and Asian Americans in the city and a measure of Diversity known as the Herfindahl Index:

\[
\text{Diversity} = 1 - \sum_{r=1}^{R} \pi_r^2
\]

I also include control variables that are shown by Hajnal and Trounstine (2014) to affect racial polarization in voting and which may also be correlated with segregation. I account for the Median Household Income, proportion of the population Renting their homes, proportion of the population with a College Degree, the race of the candidates in the election (a dummy variable coded 1 if the election featured Biracial candidates), a measure noting whether or not the

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113 Tract-level data for 1980, 1990, and 2000 come from a proprietary product developed by GeoLytics called the Neighborhood Change Database (NCDB), which matches and normalizes Census tracts over time. The data from the 2011 American Community Survey (ACS) are available for download through the Census ftp server located at http://www2.census.gov/.

114 The 1980 tract-level data only disaggregate the non-Hispanic population into Whites, Blacks, and Others, so I am unable to include Asians as a separate group.

115 This calculation includes five racial groups: white (non-Hispanic), black (non-Hispanic), Asian (non-Hispanic), Hispanic, and other.
election was *Non-partisan*, an indicator for *Primary* elections, and the size of the total *Population* (logged). Finally, I include fixed effects for year and region and random effects for cities.

In Model 3, I also add a measure of the average *Ideology* among the city’s white residents to determine whether or not segregation is merely a proxy for a conservative white population. This measure was constructed using General Social Survey (GSS) data from 1998, 2000, 2002, 2004, 2006, and 2008. Using restricted access data, I geo-coded each respondent in the GSS to his/her city of residence. I then took the mean ideology score for each city’s white respondents for each year (higher values indicate more conservative respondents). I interpolated ideology for odd years and then merged these data to the racial polarization data set. In order to preserve as many observations as possible, I matched GSS data from the most recent year for each election.

The results presented in Table 6.1 offer strong support for the hypothesis that more segregated cities are also more politically polarized.

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116 I dropped city/years from the GSS that only contained a single respondent.
### Table 6.1: Racial Polarization in Segregated Cities

<table>
<thead>
<tr>
<th></th>
<th>Racial Divide w/ Multi-Group Segregation Index</th>
<th>Racial Divide w/ Two-Group Segregation Index</th>
<th>Racial Divide w/ Ideology control</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>β</td>
<td>SE</td>
<td>P&gt;</td>
</tr>
<tr>
<td>Multi-group H Index</td>
<td>0.932</td>
<td>0.39</td>
<td>0.02</td>
</tr>
<tr>
<td>White/nonwhite H Index</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Diversity</td>
<td>0.385</td>
<td>0.36</td>
<td>0.29</td>
</tr>
<tr>
<td>% Asian</td>
<td>-0.115</td>
<td>0.53</td>
<td>0.83</td>
</tr>
<tr>
<td>% Black</td>
<td>-0.432</td>
<td>0.27</td>
<td>0.11</td>
</tr>
<tr>
<td>% Latino</td>
<td>-0.191</td>
<td>0.26</td>
<td>0.46</td>
</tr>
<tr>
<td>Median HH Income (1000s)</td>
<td>-0.004</td>
<td>0.00</td>
<td>0.52</td>
</tr>
<tr>
<td>% Renters</td>
<td>-0.580</td>
<td>0.42</td>
<td>0.17</td>
</tr>
<tr>
<td>% College Educated</td>
<td>0.328</td>
<td>0.71</td>
<td>0.65</td>
</tr>
<tr>
<td>Biracial contest</td>
<td>0.210</td>
<td>0.04</td>
<td>0.00</td>
</tr>
<tr>
<td>Nonpartisan Election</td>
<td>-0.090</td>
<td>0.07</td>
<td>0.18</td>
</tr>
<tr>
<td>Primary Election</td>
<td>-0.092</td>
<td>0.03</td>
<td>0.00</td>
</tr>
<tr>
<td>Population (logged)</td>
<td>0.035</td>
<td>0.06</td>
<td>0.53</td>
</tr>
<tr>
<td>White Ideology</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Constant</td>
<td>-0.242</td>
<td>0.57</td>
<td>0.67</td>
</tr>
<tr>
<td>Wald (\chi^2)</td>
<td>187.12</td>
<td>0.00</td>
<td>189.68</td>
</tr>
</tbody>
</table>

Note: Multi-level mixed-effects linear regressions with fixed effects for region and year, and random effects for cities.

The relationship between segregation and political polarization is powerful. A city in the 10th percentile of the segregation distribution can be expected to have a 35 percentage point divide between different racial groups’ support for the winning candidate, while a city in the 90th percentile of segregation has a predicted racial divide of 63 percentage points. These results hold even with the inclusion of racial demographics. Segregation, not just diversity, matters for polarization. The data also indicate (comparing columns 1 and 2) that there is no significant difference in accounting for segregation among multiple racial groups as opposed to accounting

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117 Estimates were generated from the regression presented in column 1 with all other variables held at their mean values. Predicted effects were generated using the “margin” command in Stata 12.
for segregation of whites from nonwhites.118 This makes sense given that whites are much more likely to live in homogenous neighborhoods than are other racial and ethnic groups and given that the most pronounced political division is typically between whites and one or more minority groups, rather than among minority groups. These results suggest that political polarization depends on the degree to which white residents live in exclusively white neighborhoods.

I have argued that segregation generates political divisions because the politics of space become intertwined with race. It is possible though, that segregation is simply correlated with a more ideologically conservative white population which then generates divides in support for candidates. As the third column reveals, the relationship between segregation and polarization appears to be unaffected by the conservatism of the white population. In fact, the relationship between ideology and polarization is such that cities with more conservative white populations have smaller racial divides, underscoring the conclusion that racial polarization is not driven by ideological divisions. In the next section, I ask whether or not this polarization extends beyond support for candidates to a lack of consensus over policy. In short, I find that it does.

Diversity and Segregation in the Aggregate

Scholars have provided evidence that racially diverse places and those that are becoming increasingly diverse spend fewer public dollars on productive public goods (Alesina et al. 1999, Hopkins 2009). I have argued that segregation, not just diversity, should matter in municipal politics. In the first section of this chapter, I showed that segregation is related to political polarization, even after accounting for racial demographics. If it is the case that segregated populations are less able to come to a consensus over citywide policy decisions, we should also

118 The 95% confidence intervals for these coefficients are nearly completely overlapping. Additionally, adding both coefficients to the same equation and running a post-estimation Wald test of equality indicates no significant difference.
see less support for government spending in segregated cities after accounting for racial demographics.

In order to analyze this hypothesis, I draw on the Census of Governments city and township expenditure data from 1982, 1987, 1992, 1997, 2002, 2007, and 2012. To these data, I merged interpolated data from the 1980, 1990, 2000, and 2010 Census of Population and Housing, and from the 2007-2011 American Community Survey (ACS). In the broadest sample, I have data for 3,113 cities, which range in size from about 750 residents to more than 8 million. To capture overall spending on public goods, I analyze the effect of segregation on per-capita Direct General Expenditures. I follow this with analyses of operations expenditures on specific budgetary categories including Roads and Highways, Police, Parks, Sewers, and a combined category of Welfare, Health, and Housing and Community Development. I also analyze per capita Revenues coming from the city’s own residents (as opposed to intergovernmental revenues) as an indication of the burden of funding the populous is willing to bear. All spending data are in thousands of 2012 dollars. Summary statistics are shown in appendix Table A6.3. As above, the primary independent variable is the H Index to measure segregation. In the tables and figures below, I present results using the two-group (white and nonwhite) index; results from the multi-group index and isolation index are very similar.

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119 Available at http://www2.census.gov/pub/outgoing/govs/special60/. Filename is “IndFin_1967-2012.zip”.
120 Data are available for many more cities in 2012 than in prior years (largely because I have Census data for more places in 2011). I only use observations from 2012 that are also included in 2007 to create a consistent panel.
121 All analyses are restricted to cities with non-zero expenditures in the category in question because the data do not distinguish between zero expenditures and missing data.
122 Operations expenditure totals were generated by taking the total spending in each category less any capital expenditures in that particular year. The category of welfare, health, and housing/community development represents the primary expenditures by cities used to directly support people in economic need.
123 In contrast, the categorical expenditure variables include all spending on a certain target regardless of the source of the funds.
To account for the alternative explanation that diversity drives down spending, the analyses include the proportion of the population that is Black, Asian, and Latino as well as a measure of overall Diversity. Controlling for demographics also helps account for the fact that white and minority preferences for government spending differ. Racial and ethnic minorities support more government spending than whites on a large number of programs at all levels of government (Hutchings and Valentino 2004). In the aggregate then, we might expect cities with larger populations of racial and ethnic minorities to support more per capita expenditure, just as Boustan et al. (2013) find. But if my theory is right, cities with more segregation and similar shares of minority residents ought to witness smaller budgets and lower spending on public goods compared to cities with less segregation because the likelihood of cooperation ought to be fundamentally different in these types of places.

The analyses below also control for the total Population (logged), the proportion of the population Over Age 65, the proportion of the population with a College Degree, the proportion of each 100 residents Employed as Local Government workers, the proportion of households that Rent their home, and the Median Household Income. These controls are meant to capture demographic dimensions that affect both segregation and expenditures (through both preferences and need). For instance, we might expect cities with large populations of government workers to have higher levels of spending, while the reverse might be the case in cities with older populations. An important alternative explanation for a negative relationship between segregation and spending could be city wealth. Segregated cities might be poorer cities for some reason, and may simply have fewer resources to spend on public goods. Controlling for the proportion of the city that rents and the median household income are intended to account for
this possibility. Finally, I include fixed effects for cities. This allows me to analyze the effect of segregation within the same location over time and controls for the many factors (such as age of the city, differentials in costs for service provision, taxation powers and limits, etc.) that might lead cities to differ in expenditure patterns cross-sectionally. I cluster standard errors by city. I exclude from the analyses cities with only a single Census tract because the measure of evenness is constant (by definition).

I begin, in Table 6.2, by regressing per capita Direct General Expenditure on Segregation with the controls described above. Then, in the second column, I replace Diversity with 5 Year Changes in racial group shares (following Hopkins 2009) to determine whether or not changes in diversity could be the driving factor. In the third column, I add the mean Ideology of city residents (calculated from the GSS for all city residents as described above) to account for the possibility that segregated cities are more ideologically conservative. In alternate models (not shown), I add a control for renter segregation. The coefficient is insignificant and does not affect the results presented below.

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124 In alternative analyses I tested the inclusion of proportion of the city in poverty and median home values with no change to the pattern of results.
125 Hopkins (2009) uses 10 year changes in racial group shares. I chose 5 years in order to preserve more observations in the time-series. The results are similar with 10 year changes.
Table 6.2: Effect of Segregation on Overall Per Capita City Expenditures

<table>
<thead>
<tr>
<th></th>
<th>Direct General Expenditure Per Capita</th>
<th>Direct General Exp w/ changing demographics</th>
<th>Direct General Exp w/ ideology control</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>β</td>
<td>SE</td>
<td>P&gt;</td>
</tr>
<tr>
<td>Segregation</td>
<td>-1.266</td>
<td>0.218</td>
<td>0.000</td>
</tr>
<tr>
<td>Diversity</td>
<td>0.199</td>
<td>0.133</td>
<td>0.134</td>
</tr>
<tr>
<td>% Black</td>
<td>0.726</td>
<td>0.179</td>
<td>0.000</td>
</tr>
<tr>
<td>% Asian</td>
<td>-0.88</td>
<td>0.288</td>
<td>0.002</td>
</tr>
<tr>
<td>% Latino</td>
<td>1.634</td>
<td>0.171</td>
<td>0.000</td>
</tr>
<tr>
<td>5 yr Δ % Black</td>
<td>-1.918</td>
<td>0.691</td>
<td>0.006</td>
</tr>
<tr>
<td>5 yr Δ % Latino</td>
<td>-1.695</td>
<td>0.725</td>
<td>0.02</td>
</tr>
<tr>
<td>5 yr Δ % Asian</td>
<td>-1.389</td>
<td>1.073</td>
<td>0.196</td>
</tr>
<tr>
<td>Median Income (1000s)</td>
<td>0.006</td>
<td>0.001</td>
<td>0.000</td>
</tr>
<tr>
<td>% Local Gov. Employees</td>
<td>-0.004</td>
<td>0.015</td>
<td>0.787</td>
</tr>
<tr>
<td>% Renters</td>
<td>0.387</td>
<td>0.318</td>
<td>0.223</td>
</tr>
<tr>
<td>% Over 65</td>
<td>0.458</td>
<td>0.597</td>
<td>0.443</td>
</tr>
<tr>
<td>% College Grad</td>
<td>5.114</td>
<td>0.434</td>
<td>0.000</td>
</tr>
<tr>
<td>Population (logged)</td>
<td>-0.36</td>
<td>0.045</td>
<td>0.000</td>
</tr>
<tr>
<td>City ideology</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Constant</td>
<td>3.379</td>
<td>0.441</td>
<td>0.000</td>
</tr>
<tr>
<td>N</td>
<td>16,831</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Number of Cities</td>
<td>3,113</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note: Linear regressions with fixed effects for cities, robust standard errors clustered by city presented.

Table 6.2 provides strong evidence that segregation and public goods spending are negatively related, even in the presence of changing demographics, diverse populations, and conservative residents. The effects of segregation are substantively meaningful and statistically significant. Increasing the segregation index from the 25th to 75th percentile (from .01 to .10) in the base model lowers per capita direct general expenditure from $1,413 to $1,299. A difference in total spending of more than $100 per resident could dramatically affect the quality of public goods that individuals experience given that the average per capita operating expenditure on police is about $190 and about $51 on parks. In Table 6.3, I show that the depressive effect of segregation extends to individual categories of public goods spending as well.
### Table 6.3: Effect of Segregation on Public Goods

<table>
<thead>
<tr>
<th></th>
<th>Roads</th>
<th>Law Enforcement</th>
<th>Parks</th>
<th>Sewers</th>
<th>Housing/Welfare</th>
<th>Own Source Rev</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>β</td>
<td>SE</td>
<td>P&gt;</td>
<td>t</td>
<td></td>
<td>β</td>
</tr>
<tr>
<td>Segregation</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Diversity</td>
<td>-0.033</td>
<td>0.01</td>
<td>0.02</td>
<td>-0.198</td>
<td>0.02</td>
<td>0.00</td>
</tr>
<tr>
<td>% Black</td>
<td>0.017</td>
<td>0.01</td>
<td>0.06</td>
<td>0.060</td>
<td>0.01</td>
<td>0.00</td>
</tr>
<tr>
<td>% Asian</td>
<td>-0.069</td>
<td>0.02</td>
<td>0.00</td>
<td>-0.083</td>
<td>0.03</td>
<td>0.00</td>
</tr>
<tr>
<td>% Latino</td>
<td>0.018</td>
<td>0.01</td>
<td>0.12</td>
<td>0.361</td>
<td>0.02</td>
<td>0.00</td>
</tr>
<tr>
<td>Median Income (1000s)</td>
<td>0.000</td>
<td>0.00</td>
<td>0.00</td>
<td>0.000</td>
<td>0.00</td>
<td>0.11</td>
</tr>
<tr>
<td>% Local Gov.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Employees</td>
<td>0.000</td>
<td>0.00</td>
<td>0.81</td>
<td>-0.001</td>
<td>0.00</td>
<td>0.52</td>
</tr>
<tr>
<td>% Renters</td>
<td>0.030</td>
<td>0.02</td>
<td>0.11</td>
<td>0.085</td>
<td>0.03</td>
<td>0.00</td>
</tr>
<tr>
<td>% Over 65</td>
<td>0.149</td>
<td>0.03</td>
<td>0.00</td>
<td>0.191</td>
<td>0.05</td>
<td>0.00</td>
</tr>
<tr>
<td>% College Grad</td>
<td>0.189</td>
<td>0.02</td>
<td>0.00</td>
<td>0.842</td>
<td>0.04</td>
<td>0.00</td>
</tr>
<tr>
<td>Population (logged)</td>
<td>-0.020</td>
<td>0.00</td>
<td>0.00</td>
<td>-0.06</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>Constant</td>
<td>0.197</td>
<td>0.03</td>
<td>0.00</td>
<td>0.548</td>
<td>0.05</td>
<td>0.00</td>
</tr>
</tbody>
</table>

| N                              | 16,642  | 16,673          | 15,809  | 13,832   | 13,203          | 16,830 |
| Number of Cities               | 3,089   | 3,083           | 3,020   | 2,840    | 2,754           | 3,113  |

Note: Linear regressions with fixed effects for cities, robust standard errors clustered by city presented.
Clearly, spending on public goods is lower in cities with greater segregation. Across all six categories displayed in Table 6.3, segregation exerts a significant negative effect. Figure 6.1 presents these results graphically.

**Figure 6.1: Segregation and Public Goods Spending**

- Roads Expenditure Per Capita, $1000s
- Police Expenditure Per Capita, $1000s
- Parks Expenditure Per Capita, $1000s
- Sewers Expenditure Per Capita, $1000s
Note: Figures show the predicted relationship between Theil’s H segregation index and per capita spending on public goods in constant 2012 dollars. Gray shading represents 95% confidence intervals.

Tables 6.2 and 6.3 also reveal that while segregation is negatively related to public goods investment, more diverse communities are mostly associated with higher levels of spending as the positive coefficients on diversity and on percent black and Latino indicate. Given that racial and ethnic minorities are both more supportive of public goods spending and more likely to live in segregated places (which see less support for public goods), it is important to ask what the overall impact of these countervailing effects is. Table 6.4 shows how segregation affects public goods provision across the range of values of diversity. I divide the sample of cities into quintiles of percent nonwhite (with 3,366 city-years in each quintile) and then, after estimating the model displayed in column 1 of Table 6.2, I predict Direct General Expenditure per capita at the minimum and maximum values of segregation for each quintile, holding all other variables at their mean values given the quintile. Table 6.4 shows the difference in these predicted values for each quintile of percent nonwhite.
<table>
<thead>
<tr>
<th>Quintile of % Nonwhite</th>
<th>Average % Nonwhite</th>
<th>Average Segregation Level</th>
<th>Change in Predicted Direct General Expenditure Per Capita*</th>
<th>95% Confidence Interval</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>4%</td>
<td>0.030</td>
<td>-$490</td>
<td>(-$656, -$325)</td>
</tr>
<tr>
<td>2</td>
<td>10%</td>
<td>0.041</td>
<td>-$870</td>
<td>(-$1163, -$576)</td>
</tr>
<tr>
<td>3</td>
<td>19%</td>
<td>0.066</td>
<td>-$970</td>
<td>(-$1298, -$643)</td>
</tr>
<tr>
<td>4</td>
<td>33%</td>
<td>0.108</td>
<td>-$930</td>
<td>(-$1244, -$616)</td>
</tr>
<tr>
<td>5</td>
<td>65%</td>
<td>0.125</td>
<td>-$846</td>
<td>(-$1132, -$561)</td>
</tr>
</tbody>
</table>

*Predicted values generated from regression displayed in column 1, Table 7.2. Change is from the minimum to maximum level of segregation within a quintile of percent nonwhite.

Table 6.4 reveals substantial declines in direct general expenditure as segregation increases, regardless of the size of the minority population. Segregation has the largest effect in cities with moderately sized minority populations (where minorities comprise 19-33% of the population), but even in majority-minority cities (where minorities make up more than 50% of the population) and cities that are overwhelmingly white, increasing segregation decreases investment in public spending. The fact that segregation has the most pronounced effect in the middle quintiles offers indirect evidence that it is white residents responding to significant minority concentrations driving the negative relationship between segregation and public goods spending. An alternative possibility is that low turnout among minority residents drives this pattern. As Figure 6.2 shows, this case is extremely unlikely, given that turnout among minority residents is actually higher in more segregated cities while turnout among whites is lower.

To test this possibility, I draw on data from the General Social Surveys conducted between 1998 and 2008; years for which I was able to determine respondents’ city of residence
(see Chapter 7 for additional details on this dataset). I estimate the probability that a respondent *Voted* in the most recent presidential election. Using logistic regression, I regress this variable on the level of *Segregation* in the respondent’s city. To understand how segregation operates differently for different groups, I interact the level of segregation with a dummy variable coded 1 if the respondent is *White and Non-Hispanic*, and 0 otherwise. I control for the respondent’s level of *Education*, whether or not they have *Kids at home*, their *Gender*, whether or not they are *Married*, their *Income*, and whether or not they are a *Government Employee*.

**Figure 6.2: Correlation between Segregation and Turnout by Race**

At low levels of segregation, white turnout is much higher than minority turnout, but the lines converge as segregation increases. Furthermore, using the racial polarization dataset described in the first section of this chapter, I find that turnout and segregation are positively
correlated in the aggregate. These patterns strongly suggest that politics is more contentious in more segregated communities. Thus, a lack of participation by residents who support high spending is not likely to be the cause of lower public goods investment.

However, even with controls, one might still worry about the causal relationship between segregation and spending. I have argued that segregation should suppress public goods spending. However, it is entirely possible, perhaps quite likely, that some unmeasured set of factors affect both spending and segregation (or that the reverse is true, and spending levels affect segregation patterns). Since we cannot randomly assign segregation to determine its effect on city spending, I use an instrumental variable approach to study the relationships.

A great many factors affect residential location and the distribution of different types of residents across neighborhoods. One set of factors that affects both property values and the ability for communities to maintain a preferred degree of homogeneity are natural and manmade barriers. For instance, freeways and railroad tracks frequently divide more desirable and less desirable parts of town (Ananat 2011). But railways and freeways are often built with the intent to segregate racial communities (Bayor 1996). Instead, I focus on waterways (including large streams and rivers), which vary in number across cities and are arguably exogenous to segregation and spending given that they are not man-made. The use of waterways as an instrumental variable was introduced by Hoxby (2000) who used streams to estimate the governmental fragmentation of metropolitan areas. Cutler and Glaeser (1997) rely on Hoxby’s waterways data as an instrument for metropolitan area racial segregation. My instrument differs in two ways. First, and most importantly, my data capture waterway counts and segregation patterns at the city level rather than at the metropolitan-area level. Secondly, I use a different source file for the waterways data and a different method for determining whether a waterway
ought to be counted within the boundaries of a community. In order to use waterways as an instrument for segregation, I gathered the “rivers and streams” geographic information system map file from the National Hydrologic Remote Sensing Center which is part of the National Oceanic and Atmospheric Administration (an agency in the US Department of Commerce). I added Census TIGER Line boundary files for all places in the United States as of 2000. I then generated counts of waterways for each place and added these counts to the finance data described previously. Overall, the correlation between the number of waterways and the H Index is a powerful 0.37, and the F-statistic on the excluded instrument is 3,999, which is considerably higher than the typical target of 10.

The current analyses use the same dependent variables as were presented in Tables 6.2 and 6.3 (per capita spending on various public goods). The number of waterways is used as an instrument for the $H$ Index. Waterways are also correlated with other characteristics that are important to both segregation and spending patterns. The most important of these characteristics is the size of the population which is correlated with both the number of waterways and the level of segregation. People have settled near waterways since antiquity, and larger cities are also much more likely to be segregated than smaller cities (perhaps because there are more neighborhoods from which to choose). To account for this, I include logged population

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126 Hoxby (2000) uses a hand count of streams that are 3.5 miles in length and “of a certain width” supplemented with data from the Geographic Names Information System which lists the latitude and longitude of smaller streams. Instead, I use geographic information system maps as described in the main text and include all large streams and rivers regardless of length and width. Hoxby (2000) attributes a stream to a Metropolitan Statistical Area (MSA) if it terminates in the MSA (Rothstein 2007), whereas my analysis attributes a waterway to a community if it flows through the community at all (not just at its origin or destination).

127 The “rivers and streams” shape file is available at: [http://www.nohrsc.noaa.gov/gisdatasets/](http://www.nohrsc.noaa.gov/gisdatasets/). It was most recently updated in 2008.

128 Boundary files are available for download by state here: [http://www2.census.gov/geo/tiger/TIGER2010/PLACE/2000/](http://www2.census.gov/geo/tiger/TIGER2010/PLACE/2000/)

129 This F-statistic is drawn from a simple two-stage regression instrumenting segregation with waterways and including no additional controls.
as an instrument in the first stage. In both the first and second stage regressions, I include the same control variables as presented in Table 6.2, with two changes. Because the number of waterways is constant in my dataset, I do not add fixed effects at the city level. Instead, I include fixed effects for region and year. Secondly, I add a lagged version of the dependent variable to account for the high correlation between observations over time for the same city and the fact that local budgets are typically changed incrementally from prior years. The results from this instrumental variable approach are displayed in Table 6.5. For presentation purposes, the first stage results are relegated to appendix Table A6.4.

130 In alternative specifications, I use the number of waterways per capita as the instrument. The pattern of the results is exactly the same.

131 The omission of fixed effects allows for the inclusion of all cities regardless of the number of Census tracts.
Table 6.5: Effect of Segregation on City Expenditures, Instrumental Approach

<table>
<thead>
<tr>
<th></th>
<th>Direct General Exp</th>
<th>Roads</th>
<th>Law Enforcement</th>
<th>Parks</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>β</td>
<td>SE</td>
<td>P&gt;</td>
<td>t</td>
</tr>
<tr>
<td><strong>Segregation instrumented</strong></td>
<td>-3.806</td>
<td>1.09</td>
<td>0.00</td>
<td>-0.385</td>
</tr>
<tr>
<td>Lagged DV</td>
<td>0.858</td>
<td>0.00</td>
<td>0.00</td>
<td>0.490</td>
</tr>
<tr>
<td>Diversity</td>
<td>-0.418</td>
<td>0.38</td>
<td>0.27</td>
<td>-0.027</td>
</tr>
<tr>
<td>% Black</td>
<td>0.798</td>
<td>0.36</td>
<td>0.03</td>
<td>0.080</td>
</tr>
<tr>
<td>% Asian</td>
<td>-0.848</td>
<td>0.99</td>
<td>0.39</td>
<td>-0.088</td>
</tr>
<tr>
<td>% Latino</td>
<td>1.121</td>
<td>0.31</td>
<td>0.00</td>
<td>0.086</td>
</tr>
<tr>
<td>Median Income (1000s)</td>
<td>0.012</td>
<td>0.00</td>
<td>0.00</td>
<td>0.001</td>
</tr>
<tr>
<td>% Local Gov. Employees</td>
<td>0.276</td>
<td>0.03</td>
<td>0.00</td>
<td>0.017</td>
</tr>
<tr>
<td>% Renters</td>
<td>2.627</td>
<td>0.39</td>
<td>0.00</td>
<td>0.159</td>
</tr>
<tr>
<td>% Over 65</td>
<td>2.260</td>
<td>0.81</td>
<td>0.01</td>
<td>0.270</td>
</tr>
<tr>
<td>% College Grad</td>
<td>-0.495</td>
<td>0.62</td>
<td>0.42</td>
<td>-0.013</td>
</tr>
<tr>
<td>Constant</td>
<td>-2.034</td>
<td>0.31</td>
<td>0.00</td>
<td>-0.105</td>
</tr>
<tr>
<td>N</td>
<td>2,669</td>
<td>25,121</td>
<td>25,034</td>
<td>23,197</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>Sewers</th>
<th>Welfare</th>
<th>Own Source Revenue</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>β</td>
<td>SE</td>
<td>P&gt;</td>
</tr>
<tr>
<td><strong>Segregation instrumented</strong></td>
<td>-0.393</td>
<td>0.06</td>
<td>0.00</td>
</tr>
<tr>
<td>Lagged DV</td>
<td>0.082</td>
<td>0.01</td>
<td>0.00</td>
</tr>
<tr>
<td>Diversity</td>
<td>0.075</td>
<td>0.02</td>
<td>0.00</td>
</tr>
<tr>
<td>% Black</td>
<td>0.054</td>
<td>0.02</td>
<td>0.02</td>
</tr>
<tr>
<td>% Asian</td>
<td>-0.229</td>
<td>0.06</td>
<td>0.00</td>
</tr>
<tr>
<td>% Latino</td>
<td>-0.048</td>
<td>0.02</td>
<td>0.01</td>
</tr>
<tr>
<td>Median Income (1000s)</td>
<td>0.000</td>
<td>0.00</td>
<td>0.89</td>
</tr>
<tr>
<td>% Local Gov. Employees</td>
<td>0.000</td>
<td>0.00</td>
<td>0.88</td>
</tr>
<tr>
<td>% Renters</td>
<td>0.082</td>
<td>0.02</td>
<td>0.00</td>
</tr>
<tr>
<td>% Over 65</td>
<td>0.344</td>
<td>0.05</td>
<td>0.00</td>
</tr>
<tr>
<td>% College Grad</td>
<td>0.057</td>
<td>0.04</td>
<td>0.11</td>
</tr>
<tr>
<td>Constant</td>
<td>0.007</td>
<td>0.02</td>
<td>0.69</td>
</tr>
<tr>
<td>N</td>
<td>20,258</td>
<td>17,827</td>
<td>25,671</td>
</tr>
</tbody>
</table>

Note: Two stage least squares regressions with fixed effects for regions and year (not shown); Instrumented: Two-group H Index of segregation; Excluded Instruments: # of Waterways, Population logged.
Regardless of the statistical approach used, segregation appears to have a powerful, depressive effect on public goods provision in cities. The pattern of results in Table 6.5 reflects the OLS regression findings presented in Table 6.2. After accounting for demographic differences, cities with more segregation tend to have smaller budgets, they tend to extract fewer resources from their residents, and spend less on roads, policing, parks, sewers, and support for the poor.

But perhaps lower spending is what residents prefer. After all, many elections have been won on platforms promising austerity and frugality. In the final section of this chapter, I explore what the consequences of low spending might be by analyzing a universally disliked event: sewer overflows.

**Segregation and Sewer Overflows**

The federal Environmental Protection Agency (EPA) monitors municipal sewer systems for overflow events. According to a 2004 EPA report to Congress, approximately 860 billion gallons of untreated wastewater were released into communities between 2001 and 2003 when sewer systems’ capacities were exceeded. Any single overflow might occur for many reasons – excessive wet weather, pipe blockages, equipment failure, or insufficient capacity. However, generally, as Tessin (2009) explains:

The performance of a sewer system is strongly related to capital fund-raising….Without adequate investment, excessive groundwater can enter sewers through cracked pipes and ingrown tree roots. Aging pipes can break and send sewage to the surface. Growing populations can cause wastewater flow to exceed the system’s design capacity….For these reasons, local governments that do not invest enough capital typically experience more sewer overflows and other system failures…(p168).

Some federal and state grants are available for sewer system maintenance, but the vast majority of funding to reduce overflows comes from local sources (EPA 2004). According to
my data, the most segregated cities spend about $200 less per capita each year on their sewer systems. In the aggregate, this translates to an average of about $60,000 less per year spent on sewers (after controlling for all of the other demographic variables included in the regressions above). When city engineers plan, build, extend, and repair sewer systems, they take into account variables like population growth and average precipitation, as well as potential deviations from those estimates.

Analyses of effective or responsive governmental policy typically needs to take into account variation in constituent preferences. For instance, a community that spends very little on protection of open space or on recycling may be accurately representing the views of its residents. Sewer overflows are different. No one wants a river of fecal matter running down their street or flooding their basement. Thus, it seems reasonable to assume that more frequent overflows are, without qualification, worse than fewer overflows. That said, voters and sewer engineers may not agree on the level of resources needed to prevent overflows and therefore, raising funds for capital improvements may be challenging. If it is the case, as I have asserted above, that more segregated cities will have more trouble coming to political consensus about public goods provision, then we ought to expect more segregated cities to witness more sewer overflows – all else equal. In order to determine whether or not this is the case, I utilize data collected by the Environmental Protection Agency in 2004.

In this data collection, the EPA gathered information on overflows from 25 state environmental agencies between 2001 and 2003. In total, the EPA reported about 35,000 different overflow events from several thousand sewer agencies. The EPA data do not include any geographic identifiers other than the name of the sewer agency, and so, I matched these

132 The data were generously provided to me by Jeff Tessin who had secured the data from an EPA staff member for his PhD dissertation.
names to cities by hand. After dropping cases in which the sewer operator was not a municipal
government (e.g. metropolitan water districts or county governments), and cases in which the
EPA data provided insufficient detail to identify the municipality, I determined the location of
19,817 overflow events. I aggregated these events to the city level and was able to match these
data to segregation measures and Census data for 1,417 cities.

The median number of overflows during this period was 2, while the mode was 1. A few
cities with enormously high numbers of overflow events pull the mean to 50. For this reason, I
take the natural log of the number of overflow events for each city and standardize it by the
city’s population. This Logged Overflows Per 1000 Persons measure serves as my dependent
variable. My main independent variable is the city’s $H$ Index of racial segregation measured in
2000 if available and 2010 if not. I control for the natural log of the Total Population to account
for the possibility that cities serving more people are likely to have more advanced engineering
for their sewer systems by necessity. I add fixed effects for states for two reasons. The first is
that the EPA data collection gathered statistics form state agencies which may have had different
reporting standards. The second reason is to account for the different environmental, regulatory,
and funding environments cities in different states face. In a second regression, I add controls
for other city demographics. I add the share that Rents their homes to account for the possibility
that homeowners may be more likely to act politically to prevent overflows. I include the share
of the population that is Urban to capture the difficulties rural areas may face in providing sewer
systems to a dispersed population. I include the share of the population that is Black, Asian, and
Latino to determine whether or not diversity alone can account for poor performance. I add the
city’s Median Household Income and Per Capita Subventions to measure the city’s capacity to
raise funds for sewer maintenance and expansion. The results of these OLS regressions with robust standard errors are shown in Table 6.6 (summary statistics are in appendix Table A6.5).

|                    | \( \beta \) | SE  | \( P>|t| \) | \( \beta \) | SE  | \( P>|t| \) |
|--------------------|-------------|-----|-------------|-------------|-----|-------------|
| Segregation        | 2.166       | 0.53| 0.00        | 2.398       | 0.78| 0.00        |
| Population (logged)| -0.347      | 0.05| 0.00        | -0.325      | 0.07| 0.00        |
| % Renters          | -0.424      | 0.40| 0.29        | -0.129      | 0.09| 0.16        |
| % Urban            | -0.524      | 0.37| 0.16        | 3.813       | 1.01| 0.00        |
| % Black            | -0.080      | 0.28| 0.77        | -0.001      | 0.00| 0.66        |
| % Asian            | -0.325      | 0.07| 0.00        | -0.031      | 0.01| 0.00        |
| % Latino           | -0.524      | 0.37| 0.16        | 3.813       | 1.01| 0.00        |
| Median Income (1000s) | -0.001      | 0.00| 0.66        | -0.031      | 0.01| 0.00        |
| Subventions Per Capita (1000s) | -0.080      | 0.28| 0.77        | -0.001      | 0.00| 0.66        |
| Constant           | 3.678       | 0.53| 0.00        | 3.554       | 0.59| 0.00        |

Note: Linear regressions with fixed effects for states, robust standard errors presented.

The data reveal a significant correlation between segregation and sewer overflows. Living in a city with very little segregation, one can expect about 1.5 overflows per year on average. This increases to nearly 2.5 overflows in cities at the 95\textsuperscript{th} percentile of the segregation distribution. Not only do segregated cities see lower spending on public goods, but they also witness worse performance as well.

**Conclusion**

The evidence presented here indicates that racial segregation plays a significant role in access to public goods. Segregated cities are comprised of homogeneous neighborhoods embedded in larger diverse communities. While African Americans, Latinos, and Asians are today, fairly likely to live as neighbors, whites remain in isolated enclaves. Because local governmental decisions often concern spatial allocation, neighborhoods are important municipal
actors in local politics. In more segregated places, neighborhood interests become overlaid with racial division. Segregated cities are more racially polarized in elections and may be less likely to generate policy consensus. The result is that cities with more segregation have smaller public goods budgets. Segregated cities raise fewer dollars from their residents and spend less money on roads, law enforcement, parks, sewers, welfare, housing, and community development. This low spending may have significant consequences. For example, segregated cities also see more sewer overflows.

Patterns of residential location reveal that white residents are more likely than people of color to live in cities with low levels of segregation. In my dataset, nearly 74% of nonwhite residents live in cities in the top quintile of the segregation distribution, compared to only 48% of whites. What this means is that compared to whites, nonwhites are much more likely to live in communities that struggle to generate adequate public goods for their residents. Not only are whites segregated from racial and ethnic minorities within cities, but they are also segregated from people of color across city lines. This fact means that access to public goods is segregated along racial lines as well. As the nation has become more diverse, it has also become more unequal. Segregation and public goods play important roles in linking these phenomena.
Chapter 7: The Local Roots of Modern Conservatism

Between the late 1940s and mid-1960s, fights over racial integration pervaded the politics of America’s cities. Throughout the United States, residents battled over the integration of public schools, public transportation, pools, parks, golf courses, and of course – neighborhoods. In detailed case studies, historians have shown that white resistance to desegregation in urban centers across the country, gave rise to a new rhetoric that emphasized the protection of private property and homeowners’ rights (Kruse 2005, Lassiter 2006, Self 2003, Sugrue 1996). These historical studies argue that the rise of conservatism and Republican allegiance associated with suburban America today was actually rooted in the conflictual racial politics of central cities. In this chapter, I provide evidence that these patterns were widespread. I show that battles over the control of public space and public goods in postwar urban America contributed to the transformation of the demographic landscape and affected public opinion. People who would come to live in segregated neighborhoods, either by choice, compulsion, or happenstance, developed political attitudes and loyalties that differed significantly from similarly situated residents in more integrated places.

First, I show that federal school desegregation orders generated increases in the number of segregated neighborhoods in metropolitan areas. In this analysis, I take advantage of the randomness desegregation order timing to substantiate the link. Then, I provide evidence that the relative whiteness of a neighborhood in 1970 is a powerful predictor of political attitudes and loyalties today. People who live in places that were whiter than their metropolitan area in 1970 were more likely to vote for the Republican presidential candidate in 2008 and are more conservative than their individual attributes (e.g. race, gender, marital status, age, education, income, presence of children) would otherwise predict. Conversely, those who live in places that
were more diverse in 1970 are more liberal today. However, even with a set of individual-level controls, it is difficult to convincingly estimate the effect of neighborhoods on public opinion. Some unmeasured characteristic might cause certain neighborhoods to be more or less diverse than the larger metropolitan area in 1970, and for individuals who live there to be more or less liberal. Given existing evidence that racial attitudes became a more important predictor of vote choice and public opinion during this same period (Carmines and Stimson 1989), it is important to ensure that these relationships are being driven by the attributes of neighborhoods and not omitted individual-level variables. To do this, I instrument for the relative whiteness of neighborhoods using two geographic features: land elevation (controlling for waterfront areas) and distance from the nearest big city.

The consequences of segregation on individuals’ life chances are well known; and as Thomas Sugrue (2015) writes, “the effects…are devastating.”\textsuperscript{133} Segregation increases inequality on many different socio-economic dimensions (Cutler and Glaeser 1997, Ananat 2011). The results presented here indicate that segregation also has powerful political consequences - increasing divisions in both public opinion and voting behavior.

**Entanglements of Ideology and Integration**

At the onset of the Second World War, the United States was already a very segregated nation. All large cities had clearly defined neighborhoods inhabited by people of color and others inhabited by whites – a pattern generated by both private choices and public policies (Massey and Denton 1988).\textsuperscript{134} As a result of the economic collapse during the Great Depression

\begin{footnotesize}
\begin{enumerate}
\item[133] https://www.washingtonpost.com/opinions/its-not-dixies-fault/2015/07/17/7bf77a2e-2bd6-11e5-bd33-395c05608059_story.html
\item[134] However, on the whole, the United States, both rural and urban, was still overwhelmingly white in 1940. About 10% of the population was black, about 1.7% of the population could be considered Hispanic/Latino, and about
\end{enumerate}
\end{footnotesize}
and then material scarcity during the war, the nation faced a severe housing shortage during the 1940s. When increasing numbers of blacks moved from rural areas into cities and from the South to the North and West, the boundaries of existing black neighborhoods were pushed to their limits. In the Southwest, the Latino population also swelled with wartime employment. These pressures resulted in explosive social and policy conflicts along racial lines. Because city governments had the power to zone, to permit development and locate nuisances, and thus to determine the value of property, these fights were central to city politics. As Self (2003) argues, “the effects of property [valuation] are far-reaching…They structure all kinds of interactions - from where one can buy a home to where politics is organized, from how police interact with neighborhoods to where children go to school. The struggle for the postwar city was over no less than the power to control and organize space…” (p18).

In response to postwar demographic changes, white homeowners sought to protect their neighborhoods (which they considered to be the reward for their hard work and frugality) from disruption and disorder. In the minds of many, pursuit of these goals required racial exclusivity. Sugrue (1996) reports that in Detroit, as elsewhere, “a majority of whites looked to increased segregation as the solution to [the] ‘colored problem’” (p215). Whites, particularly those who owned their homes, believed that they had a right to certain neighborhoods and the public benefits (e.g. schools, safety) associated with those spaces. They understood minority demands for integration and court ordered desegregation plans as undermining this entitlement (Kruse 2005, p126). Whites justified exclusion with fiscal arguments; claiming that, “since Negroes are


135 http://www-bcf.usc.edu/~philipje/Segregation/Haynes_Reports/Contours_PRR_2001-04e.pdf. Hundreds of thousands of Mexican descendants were deported during the Great Depression, so the overall Latino share of the population changed little.
so poor and pay virtually no taxes, they are actually not entitled to get more public services than the whites care to give them…” (Myrdal 1944, p336). When blacks did receive benefits, it was believed that whites unfairly bore the financial burden of their support. To illustrate this point, Kruse (2005) quotes a segregationist poem that made rounds in Atlanta in 1957:

   Po’ white folks must labor, ‘tween sun and sun,
   To pay welfare taxes whilst we has de fun,
   We doan pay no taxes, we doan make no goods,
   We just raise little niggers, way back in the woods.... (p127).

Above all else, whites feared that integration would jeopardize their single largest investment – the value of their home (Helper 1969), as well as the quality of their neighborhood (Kruse 2005). The tight coupling between property values, public goods, and racial exclusivity was inexorably tied to the racism embedded in the real estate market (Hayward 2013) and the poor public goods that cities had provided to neighborhoods of color in decades past (Myrdal 1944, Torres-Rouff 2013). Kruse (2005) explains that, “by the time white homeowners confronted racial transition at their neighborhood’s borders, the American real-estate industry had completely embraced the idea that such racial transition would, without doubt, lead to a devastating decline in property values” (p60). Public policies like redlining and expulsive zoning136 and private actions like racial steering and white flight would make this relationship true over the long run.137

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136 Expulsive zoning is the practice of siting industrial, semi-industrial, or other nuisances in neighborhoods of color in order to both preserve white neighborhoods and induce black movement into particular parts of the city.
137 In the short run, blacks paid much higher prices than whites for comparable housing (Cutler and Glaser 1997). This fact was what made it so lucrative for individual whites to abandon neighborhood protection and move to the suburbs. In Atlanta, Kruse (2005) analyzes the property values in a neighborhood that transitioned from white to black between 1950 and 1960, and finds that the property values rose 27 percent over this decade.
Although many whites agreed on the desirability of residential segregation, they were stymied by various hurdles. The Supreme Court had ruled racial zoning (the designation of certain neighborhoods as being inhabitable only by whites) unconstitutional in 1917, so a perfectly direct policy approach to residential segregation was not an option. Instead, the preservation of white communities required collective action to prevent individual homeowners from selling or leasing to minority residents. As minority populations expanded and white homeownership rates skyrocketed, hundreds of white homeowners’ organizations arose in the 1940s, 50s, and 60s (Sugrue 1996, Kruse 2005). Such organizations were often created by real estate developers to protect the value of their investment. This was a charge taken seriously by property owners. These (typically all white) “civic associations, productive associations, improvement associations, and homeowners’ associations” (Sugrue 1996, p211) fought the building of public housing in their neighborhoods, sought representation on planning boards, and battled open housing laws (Self 2003). Importantly, they relied on racial restrictions in housing deeds (and racism in the real estate market) to maintain neighborhood exclusivity. But the Supreme Court ruled restrictive covenants unenforceable in 1948 (Shelley v. Kraemer), and an open housing movement swept the nation. Then, in the 1950s, other tools of segregation came under fire as the court struck down separate-but-equal accommodations in a series of cases.

138 In 1964 only 27% of white Americans supported general integration (Schuman et al 1985).
139 Many white neighborhoods also utilized violence to defend their borders (Meyer 2000, Hirsch 1983). Although tolerated (even encouraged) by the police and political establishment of some cities, murders and arson were technically illegal as well.
140 In some cases, the link between segregationists and homeowners’ groups was direct. For example, the head of Atlanta’s West End Cooperative Corporation had gotten his start in community organizing as the head of Klavern No 297’s Housing Committee (Kruse 2005 p54).
141 They also served as social organizations welcoming new neighbors and organizing block parties (Sugrue 1996).
By this time, nearly all cities utilized zoning in some fashion and many invoked the power of eminent domain to shape development through, for example, the permitting of multi-family housing, the razing of slums, and the placement of highways, public housing, and industry. In the past, white homeowners had successfully used these tools to configure residential demography (Nightingale 2006) – but they became even more important in the face of new court decisions and the rising Civil Rights Movement. At the same time, racial violence continued to erupt. However, local elites were committed to maintaining peace in their cities (Ogorzalek 2017). So, in order to convince city governments to defend their turf, white neighborhoods needed to change their approach.

In city after city, white middle class, homeowners turned away from claims based on racial exclusivity and began to press their demands in terms of rights; a tactic Sugrue (1996) terms “defensive localism” (p210). White residents fought for the, “‘right’ to select their neighbors…the ‘right’ to do as they pleased with their private property…and the ‘right’ to remain free from what they saw as dangerous encroachments by the federal government,” (Kruse 2005, p9). Local governments responded with neighborhood protection by pursuing “racial stability through spatial apartheid” (Lassiter 2006, p52). In the South, these arguments were the moderate path – a response to violent white supremacy on the right and integrationists on the left (Lassiter 2006, Kruse 2005). The fact that rights-based language gained ground in all regions of the United States meant that it offered a powerful basis for the rise of a national movement.

143 Throughout this period, neighborhood organizations also sought to maintain the color line using private mechanisms as well. For instance, some organizations raised funds to repurchase homes sold to black families in order to sell them back to whites. They also pressured real estate agencies and lenders to refuse to sell to black buyers. Additionally, they set fire to homes on the black market and newly purchased homes by black owners (Kruse 2005, Sugrue 1996). The problem with such tactics is that they were always susceptible to a sort of prisoner’s dilemma. It was incredibly lucrative for a single white homeowner to sell her home to a black family and this idea made individual white owners skittish about neighborhood transition. Neighborhood organizations constantly urged owners to think of the common good rather than their bottom line, but frequently failed.
The discourse had several facets. Subscribers claimed support for racial integration in theory (so as to distinguish themselves from the ugliness of Jim Crow), but angrily opposed government intervention in racial uplift or equalization (Lassiter 2006, p137). In fact, integration was typically viewed in zero-sum terms – gains for blacks equated to losses for whites. Government attempts to produce equal outcomes were understood to be an elevation of minority rights above those of the majority (Sugrue 1996, p227), a form of “reverse discrimination” (Lassiter 2006, p123). Policy solutions to redress inequality were cast as the work of an insidious, “‘liberal elite’ made up of judges, intellectuals, and government bureaucrats” (Hall 2005, p5).

Further drawing on racialized beliefs about the distribution of tax burdens, neighborhood defenders argued that they should not have to pay for public benefits or welfare for those who did not contribute to the public pool. So when people of color demanded, and then the court ordered, desegregation of public spaces and residential communities, these views culminated in all out tax-revolts among white residents. In cities like Atlanta, whites urged the city government to eviscerate the public budget, eliminate bus lines, as well as close pools and public parks (Kruse 2005). Whites voted down bonds for civic improvements, abandoned public schools, and railed against an activist government. In the end, many of these residents would leave the city altogether – packing up their belongings and their newly appropriated ideology and moving to the suburbs (Nall 2015, Boustan 2010).

Yet, suburban growth largely happened for market reasons that were unrelated (or at least, only tangentially related) to racial conflict in cities (Jackson 1985). As Chapter 1 revealed, by 1970, a plurality of the population lived in suburbs and more than 60% of Americans owned their homes. As the pace of suburbanization and homeownership picked up, arguments
surrounding neighborhood defense lost explicit racial designations of who contributed and who did not and who had a right to high property values and good services and who did not. As Self (2003) explains, the move away from making overt racial claims was, “intended to inoculate segregation and white privilege against charges of racism” (p268). This new language offered a “color-blind” approach to the maintenance of neighborhood boundaries. This rhetoric perpetuated the myth that residential segregation was a matter of economics and individual choice. White homeowners came to see segregation as the consequence of “meritocratic individualism” – not fostered by public policy or law (Lassiter 2006, p1). Those who lived in segregated minority neighborhoods could thus be blamed for their condition, making them undeserving of social assistance.

Maintaining exclusively white neighborhoods in the central city was possible with the help of cooperative city governments. But it was much easier in the suburbs, where a combination of public policies and private actions made homeownership only available to white residents (Jackson 1985, Hayward 2013). By 1970, neighborhoods (both within central cities and outside of them) that had maintained their whiteness despite the massive demographic shifts over the preceding 30 years had developed a distinctive, conservative approach to politics throughout the nation. Homeowners in these places expected low taxes, they rationalized racial segregation and inequality as the product of meritocracy, and they conflated white exclusivity with high property values (Self 2003, Lassiter 2006). They couched their demands in terms of protection of individual property rights. In so doing, they drew on a long tradition of American conservative principles emphasizing economic individualism, limited government, and equality of opportunity, but not outcomes (Feldman 1988, McClosky and Zaller 1984, Kinder 1998).
Nearly forty years later, these neighborhoods continued to foster distinctive politics. Whether or not new arrivals to defended neighborhoods had been involved in the earlier battles, they came to, “accept the politics born out of white flight all the same. They embraced a new middle class rhetoric of rights and responsibilities” (Kruse 2005, p245). The Republican Party came to embrace the neighborhood defenders. Starting in the 1960s and throughout the 1970s, Republicans positioned themselves as the party that would help whites to resist social change and impose order in their environments (Hetherington and Weiler 2009, Carmines and Stimson 1989). These ideals held sway in defended neighborhoods and residents dutifully sorted themselves into the Republican Party.

The arguments appropriated in support of neighborhood defense in the 1950s and 60s are still visible in politics today. In the 2012 presidential election, Republican nominee Mitt Romney proclaimed:

There are 47 percent of the people who will vote for [the Democratic incumbent] no matter what…who are dependent upon government, who believe that they are victims, who believe the government has a responsibility to care for them, who believe that they are entitled to health care, to food, to housing, to you-name-it. That that's an entitlement. And the government should give it to them….These are people who pay no income tax…My job is not to worry about those people. I’ll never convince them they should take personal responsibility and care for their lives (Corn 2013).

Like the homeowners’ organizations of the mid-century, Romney’s statement invoked a class (not race)-centered view of deservingness. Forty-seven percent of the American public, Romney implies, “doan pay no taxes,” and rely on government benefits for subsistence. Romney’s claim

144 More boldly, 2016 Republican nominee Donald Trump’s first wife explained, “I have nothing against Mexicans, but they [come] here — like this 19-year-old, she’s pregnant, she crossed over a wall ….She gives the birth in American hospital, which is for free. The child becomes American automatically. She brings the whole family, she doesn’t pay the taxes, she doesn’t have a job, she gets the housing, she gets the food stamps. Who’s paying? You and me.” http://nypost.com/2016/04/03/ivana-trump-opens-up-about-how-she-advises-donald-his-hands/
that these non-contributors do not take personal responsibility for their lives recalls the
meritocratic arguments white homeowners made in the past about their success and their
neighborhoods. It is unsurprising then, that defended neighborhoods have offered
disproportionate support to Republican candidates and conservative policies in recent years.

The Effect of Context

To say that neighborhoods condition political views and actions is not novel. A great
deal of research investigates contextual effects on public opinion and political behavior. A
significant portion of this literature focuses (as I do here) on the community’s racial
composition.\textsuperscript{145} Some scholars find that diversity produces tolerance (e.g. racial contact theory;
Allport 1954, Oliver 2010, Sigelman et al. 1996). Others find the reverse - that large minority
populations are related to racial intolerance and lack of support for spending on race-focused or
race-coded policies (e.g. racial threat theory; Key 1949, Gay 2006, Huckfeldt 1986, Orey 2001,
Hero 1996, Plotnick and Winters 1985, Enos 2016, Baybeck 2006). Scholars also find a
negative relationship between diversity and support for taxation, spending, and public goods
provision more generally (Alesina et al. 1999; Glaser 2002; Alesina and Spolaore 1997; Easterly
and Levine 1997; Poterba 1997; Habyarimana et al. 2007, 2009; Putnam 2007; Cutler et al. 1993;
Goldin and Katz 1999, Hopkins 2009, Vigdor 2004). My argument draws on both of these
frames to argue that rights-oriented conservatism was fueled in an environment of racial threat
(integration in the 1940s, 50s, and 60s), but became entrenched in an environment of racial
isolation (whiteness of the neighborhood in the 1970s). Today, white conservatism at the

\textsuperscript{145} Other work on context analyzes social networks (Eulau and Rothenberg 1986, Zuckerman 2005), partisan
contexts (Ceaser 2013 and DiSalvo 2006) and economic contexts (Gay 2006, Books and Prysby 1999, Oliver 1999,
Oliver and Mendelberg 2000)
individual level is associated with homogeneity not diversity in neighborhoods. The whiteness of a neighborhood could produce individual-level conservatism through two different mechanisms: the nonrandom migration of individuals into or out of whiter neighborhoods (i.e. sorting/selection), or by directly affecting the ideology of residents (i.e. treatment). The sorting mechanism is supported by research demonstrating the existence of white flight (Boustan 2010, Nall 2015) and work that offers evidence of residential choice based on differing preferences for integration and other community features (Mummolo and Nall 2016, Cho, Gimpel and Hui 2013, Bishop and Cushing 2008, Card, Mas, and Rothstein 2008, Charles 2006). A treatment effect is consistent with work showing that particular types of places generate distinctive preferences as a result of features like population density or community size (Rodden 2011, Gainsborough 2001, Ogorzalek 2017, Oliver 2001).

Treatment is also consistent with work revealing differences across places that magnify the individual attributes of inhabitants – such as when minority neighborhoods lack elite networks (Wilson 1987, Widestrom 2015). A treatment effect is further predicted by scholarship that finds that neighborhood homogeneity breeds racial hostility and intolerance due to a lack of exposure to or contact with neighbors of different backgrounds (Oliver and Mendelberg 2000, Oliver and Wong 2003). Finally, a treatment effect is indicated by scholarship demonstrating what Acharya, Blackwell, and Sen (2016) refer to as the “historical persistence of political attitudes” (p2). Patterns of race relations developed during early periods of American history generated opinions and behaviors among whites in particular places that were transmitted over time and remain detectable in modern politics (see also Hersh and Nall 2016). My argument is similar: battles over integration that occurred mid-century imbued defended neighborhoods with distinctive political attitudes that are communicated through processes like neighborhood social
interaction (Huckfeldt and Sprague 1995) and/or “low-intensity cues” - the casual observation of
ones’ neighbors (Cho and Rudolph 2008).

Very likely, both selection and treatment processes are at work here. Some residents of
defended white neighborhoods brought their conservatism with them; others adopted it after
arriving. Today, defended neighborhoods are also likely to continue to attract movers with
conservative preferences. Without detailed panel survey data, I cannot discern which is the more
powerful factor. What I am able to demonstrate is that neighborhood traits from the 1970s
predict conservatism at aggregate and individual levels above and beyond the mobility of the
population and the demographic makeup of the neighborhood today.

Conservatism and Race

Just as it is not novel to propose that neighborhoods affect political behavior, it is also not
novel to propose that modern conservatism and Republican voting are rooted in racial conflict
(see Hutchings and Valentino 2004 for a thorough review). Indeed, it is uncontroversial to state
that the Civil Rights movement was a catalyst for partisan realignment, as Southern Democrats
abandoned the party championing the rights of Black Americans (Frymer 1999, Carmine and

Since the 1970s, scholars have argued that white public opinion shifted mid-century,
from a willingness to endorse Jim Crow style race prejudice/biological racism to
subtler/symbolic expressions of racial resentment (see for example, Sears and Kinder 1971,
Additionally, a sophisticated literature on public opinion and political behavior reveals that racial attitudes are strongly predictive of views toward redistributive spending (Bobo and Kluegel 1997, Sears 1988, Kinder and Sanders 1996, Rabinowitz et al. 2009, Federico 2005, Gilens 1999, Quadagno 1994, Luttmer 2001) and government policies that have become racially coded (Winter 2006, Valentino, Hutchings, and White 2002, Mendelberg 2001, Hurwitz and Peffley 1997). If an individual holds negative stereotypes of racial minorities, he or she is likely to oppose expenditures on functions like welfare, and even all government spending in some settings (Sears and Citrin 1982).

What I add to these debates is not a link between racial politics, public opinion, ideology, and party identification, but a new perspective on location. The marriage between rights-based conservatism and white perspectives on race was amplified in the crucible of city politics throughout the postwar period not just at the state and national levels. And neighborhood defense appears to have played a causal role in the development of a host of conservative political opinions that appear to be “nonracial” (Hutchings and Valentino 2004, p6).

**Empirical Evidence**

I’ve argued that local battles over integration of public spaces in the postwar period led some whites to pursue exclusively white neighborhoods. To generate government support for segregation, neighborhood defenders turned to a set of conservative arguments that highlighted their meritocratic success. Because the Republican Party protected defenders’ rights to choose their neighbors, it won their allegiance. If my argument is correct, we should find 1) that integration pressures are related to a higher incidence of exclusively white neighborhoods and 2) that residents of homogeneous white neighborhoods are more conservative and more Republican.
Testing these claims requires that I measure the presence of exclusively white neighborhoods (as the dependent variable in the first hypothesis, and as the independent variable in the second). To do this, I constructed a dataset using a proprietary product developed by GeoLytics called the Neighborhood Change Database (NCDB). The NCDB matches and normalizes census tracts between 1970 and 2000, allowing for a direct comparison of neighborhoods over time. To this, I add census tract data from the 2011 American Community Survey, matched to 2000 boundaries. I refer to neighborhoods that have a greater share of white residents than the metropolitan area as a whole as white defended neighborhoods; conversely, neighborhoods that have a greater share of residents of color than the metro area are called minority dominated neighborhoods. I use this relative conception because many residents are constrained to a particular metropolitan area by preferences or needs (Mummolo and Nall 2016), but the choice of neighborhood within that metro area may be more flexible. I capture this dynamic by measuring the demographic makeup of neighborhoods compared to the demographic makeup of their larger metropolitan area. This variable is the Tract-Metro Difference in Percent White Residents.\(^\text{146}\) Neighborhoods that are whiter than the metro area as a whole have a positive value and those that have more people of color take on a negative value. In 1970, the average neighborhood was only very slightly whiter than the metro area (Mean= 0.018), but the distribution has a long left tail, indicating many neighborhoods that were overwhelmingly populated by people of color; by 2011, the distribution was more normally distributed, with a mean just slightly less than zero. This difference in distributions reflects the diversification of the nation and the well-documented finding that neighborhood level segregation between whites

and people of color has declined substantially since the 1970s (Vigdor and Glaeser 2012, Frey 2014).

In order to determine the effect that pressures for integration had on neighborhood demographics, I take advantage of a dataset compiled by Nathaniel Baum-Snow and Byron Lutz (2011) that records the timing of federal court orders for desegregation of public schools in central cities. Although *Brown v Board of Education of Topeka* determined the unconstitutionality of segregated schools, a specific court order was nearly always required for large, central city districts to pursue desegregation plans. The data include court orders implemented between 1960 and 1990 for 92 central school districts in metropolitan statistical areas. Of these 92 orders, 48 are in the South, 9 are in the Northeast, 20 are in the Midwest, and 15 are in the West.

My examination does not include metropolitan areas that never faced a desegregation order. The factors that led some metro areas to receive court-ordered school desegregation plans and others not to receive such plans are most certainly not random, and are likely related to the outcome of interest here (the presence of white defended and minority dominated neighborhoods). Inclusion of the districts with no court order would thus be likely to violate the identifying assumption on the desegregation parameter. However, for those central cities in metropolitan areas that *did* receive an order, the timing of that order is plausibly exogenous to unobserved time-varying factors *within* metropolitan areas that might affect segregation due to the vagaries of the judicial process. The precise date at which court orders took effect was

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147 The data are described completely in the statistical appendix to Baum-Snow and Lutz (2011)’s paper. The appendix is available at: [https://www.aeaweb.org/aer/data/dec2011/20080918_app.pdf](https://www.aeaweb.org/aer/data/dec2011/20080918_app.pdf)
related to differences in the length of the appeals process for otherwise similar metropolitan areas (Baum-Snow and Lutz 2011).

Including Metropolitan Statistical Area (MSA) fixed effects ensures that the analysis compares the presence of defended/minority neighborhoods before and after the implementation of the court order in each metro area, while accounting for variation across MSAs. For each metropolitan area, in each of four census years (1970, 1980, 1990, and 2000), I calculated the mean Tract-Metro Difference in Percent White and the standard deviation of this measure. I then generated a count of census tracts that were either greater than or less than one standard deviation away from the mean racial difference for each census year in each MSA. These counts form the numerator for the share of all neighborhoods that are White Defended or Minority Dominated. These shares serve as dependent variables in my analyses. The key independent variable in my analysis, Desegregation Order, is a dummy indicator coded from the Baum-Snow and Lutz (2011) data noting whether or not a desegregation order was in place in the MSA’s central city for a given census year. The analysis compares the number of defended/minority neighborhoods before and after the implementation of desegregation by the federal government in each MSA.148 As controls, I add the log of the Total Population in the MSA, the share of MSA households Renting their homes, the Wealthy share of households (households with incomes above the 90th percentile), and the population Density of the MSA. While it is unlikely that these factors are related to desegregation order timing, directly, it is possible that they reflect an underlying time trend that influenced implementation as well as the propensity for

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148 Of the 92 metro areas in the dataset, 64 had orders implemented between 1970 and 1990. Because tract-level data was not available for most areas in 1960, I am unable to estimate change for 28 metro areas. These MSAs are still included in the regressions – just with no change on the desegregation order variable.
segregation. Figure 7.1 displays the marginal effects of desegregation orders, holding the control variables at their mean values.

The figure shows that desegregation orders significantly increased the share of neighborhoods that were both white defended and minority dominated. On average, desegregation orders generated about 30 new homogeneous neighborhoods in metropolitan areas. Homogeneity was achieved when whites moved within cities to new neighborhoods and to the suburbs.\footnote{Baum-Snow and Lutz (2011) provide evidence that Black families responded to desegregation orders by moving into newly integrated central school districts suggesting that changes in homogeneity of neighborhoods would have been driven by white not black movers.} Approximately two-thirds of the exclusive white neighborhoods in this dataset
are located in suburban places and about three-fourths of the homogeneous neighborhoods of color are located in central cities.

Did these homogeneous neighborhoods produce identifiably different politics? In short, yes. To provide evidence of this claim, I measure the homogeneity of neighborhoods continuously for a single year - 1970. I use 1970 because this year marked the height of residential segregation in America and the end of the post-war period of massive demographic change (Cutler, Glaeser, and Vigdor 1999). First, I analyze the effect of neighborhood homogeneity on the aggregate 2008 presidential vote. Then, I turn to individual-level data. I find that homogeneity in 1970 predicts conservatism today.

My first dependent variable is the 2008 Democratic Share of the two-party presidential vote aggregated to the census tract level for the 49 states that collect vote data by precinct.\footnote{Oregon conducts all elections by mail, so geographically allocated votes are not available.} Precinct-level vote returns are available from the Harvard Elections Database Archive.\footnote{A combined, projected polygon shapefile was very generously provided to me by Clayton Nall.} Using ArcGIS, I combined the precinct vote data with 2000 census tract boundaries available from the National Historic Geographic Information System archive.\footnote{Because precinct boundaries sometimes cross-tract boundaries, I calculated the land-area share of each precinct falling within each census tract. I used this geographic share as a weight on the total votes for the Democratic and Republican candidates before aggregating precinct vote totals to the tract level.} I aggregated precinct-level votes to the census tract level.

My independent variable is the Tract-Metro Difference in Percent White, 1970. This measure captures the difference between the tract-level share of residents who were white and the metro area-level share of residents who were white in 1970. I control for the 2000 tract-level \textit{Percent White}, the share of the tract that \textit{Rents} their home, and the share of the tract’s households...
that are *Wealthy* (incomes above the 90\textsuperscript{th} percentile). These variables account for the possibility that whiter tracts in 1970 are simply populated by more whites and homeowners today, and so, are more conservative only as a result of their current demographics. I also add the *Density* of the census tract (total population divided by total area) to account for Rodden’s (2011) argument that the source of modern liberalism is housing density. To investigate the role of selection, I add a measure of the share of the tract’s residents who lived in the same house in 1995. In a third analysis, I add fixed effects for region. In all analyses, I use ordinary least squares regression and cluster errors by MSA. Table 7.1 presents the results of these regressions.

Summary statistics are shown in appendix Table A7.1.

### Table 7.1: Effect of 1970 Relative Whiteness on 2008 Democratic Vote Share

<table>
<thead>
<tr>
<th></th>
<th>Column 1</th>
<th>Column 2</th>
<th>Column 3</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>SE</td>
<td>P&gt;</td>
</tr>
<tr>
<td>Tract-Metro Difference in % White, 1970</td>
<td>-0.422</td>
<td>0.016</td>
<td>0.000</td>
</tr>
<tr>
<td>% White 2000</td>
<td>-0.340</td>
<td>0.026</td>
<td>0.000</td>
</tr>
<tr>
<td>% Renters 2000</td>
<td>0.244</td>
<td>0.024</td>
<td>0.000</td>
</tr>
<tr>
<td>% Wealthy 2000</td>
<td>0.116</td>
<td>0.036</td>
<td>0.001</td>
</tr>
<tr>
<td>% Same House 1995</td>
<td>0.183</td>
<td>0.044</td>
<td>0.000</td>
</tr>
<tr>
<td>Density</td>
<td>1.356</td>
<td>1.164</td>
<td>0.245</td>
</tr>
<tr>
<td>Midwest</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>South</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>West</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Constant</td>
<td>0.631</td>
<td>0.013</td>
<td>0.000</td>
</tr>
<tr>
<td>R\textsuperscript{2}</td>
<td>0.207</td>
<td></td>
<td></td>
</tr>
<tr>
<td>N</td>
<td>44,958</td>
<td>44,958</td>
<td>44,958</td>
</tr>
</tbody>
</table>

Note: OLS regression, robust standard errors clustered by MSA presented.

A neighborhood of color in 1970 (*tract-metro difference* = -0.5), delivered about 84% of its votes to Barack Obama in 2008. A neighborhood that was white defended in 1970 (*tract-metro difference* = 0.5) offered Obama only 42% of its votes in 2008.\textsuperscript{153} Obviously,

\textsuperscript{153} Estimates generated following the regression presented in Column 1, using the margins command in Stata 14.
demographic patterns are persistent – one explanation for this outcome is that these neighborhoods that were white defended and minority dominated in 1970 are still populated with whites and people of color today. But as Column 2 shows, even accounting for contemporary demographics, neighborhoods that were relatively whiter in 1970 were about 11 percentage points less likely to support Obama relative to McCain. The difference between the least white and most white neighborhoods in 1970 is 22 percentage points – even controlling for whiteness in 2000.

Contrary to a pure selection story, census tracts with more stable populations were more (not less) likely to support Obama and there is no interaction effect between stability of the population in 1995 and the whiteness of the neighborhood in 1970. That is, if selection were entirely driving these results, we would expect that tracts that were both white in 1970 and had a large share of movers would be most likely to support the Republican candidate. This is not what we see. Holding all other variables at their mean values, Figure 7.2 presents the results from Column 2 graphically for the densest portion of the distribution on the independent variable.154

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154 This portion of the distribution reflects the concepts of white defended and minority dominated neighborhoods. The mean value of the 1970 tract-metro difference in percent white for minority dominated neighborhoods was -0.5 and 0.25 for defended neighborhoods.
The third column of Table 7.1 reveals that the relationship holds even when accounting for differences in mean levels of Democratic support across regions. Despite the robustness of the effect of 1970 demographics on 2008 presidential votes, it is possible that some set of uncontrolled factors affect the relative whiteness of neighborhoods in 1970 and Republican support in 2008. In an effort to determine a causal neighborhood effect, I instrument for relative whiteness in 1970 with topographical features measured at the census tract level - relative elevation of the census tract (accounting for waterfront neighborhoods) and the tract’s distance from the nearest large city.
Starting perhaps with Burgess’s concentric zone model of urban social structure (1925), scholars have noted that metropolitan areas often develop such that the most desirable residential neighborhoods are those that are as far as possible from the central business district, but still within commutable distance. From early on, distance from the center denoted privilege; and the historical record indicates that movement to outer lying areas was more available to whites than people of color for many decades (Jackson 1985).155

To measure distance from the nearest central city, I used 2010 place boundaries available from the National Historic Geographic Information System. Using data from the 2011 American Community Survey, I determined the largest population center in each metropolitan area. I converted these central cities and 2000 census tracts to centroids in ArcGIS. I measured the Euclidean distance between the closest central city and each census tract (using a near table with only one match). To generate a normal distribution, I took the natural log of this distance. The resulting measure, Distance to Center City (logged), is my instrumental variable.

To be useful, an instrumental variable must predict the primary independent variable, but not directly affect the dependent variable. As explained above, there is good reason to believe that a neighborhood’s distance from the nearest central city positively affects the share of residents who are white in that community. There is no reason to believe that neighborhoods that are far from the city center will house Republican supporters aside from their demographic characteristics. However, race is not the only relevant demographic trait. Living outside of the city center also requires residents to be able to afford housing and commuting costs and

155 That said, at no point in American history has it been the case that black central cities have been ringed by heavily populated white suburbs. This is because when suburbs WERE all white (in the 1920s), they were not heavily populated and central cities were majority white as well. By the time some central cities became majority minority, suburbs had also become more integrated. This fact is further evidence that the correct measure of residential racial context is the racial makeup of the neighborhood as compared to the metropolitan area as a whole.
obviously, race is correlated with socio-economic status. I account for this by adding the share of households in the tract that *Rents* their homes, and the share of households that are *Wealthy* as of 1970 in the first stage of the instrumental analysis.

As in the regressions presented in Table 7.1, my instrumental analysis controls for the share of the population that is white in 2000, the share of the tract that lived in the same house in 1995, and the tract’s population density. My dependent variable is again the tract-level aggregate measure of the two-party *Democratic Vote Share* in 2008. I use a two stage least squares regression, with errors clustered by MSA. Table 7.2 presents the results of this estimation.
The results of the instrumental variable analysis offer strong additional support for my argument that the defended/minority status of a neighborhood in 1970 continues to exert a powerful, independent, causal effect on partisanship in modern elections. The political identity of neighborhoods appears persistent. In the next section, I provide individual-level evidence of the conservatism of defended neighborhoods.

**Individual Level Conservatism**

Obtaining individual-level survey data that is representative of city populations is notoriously difficult (Tausanovitch and Warshaw 2014). The costs of sampling across many localities, in addition to the complexity of designing specific surveys for each community, are typically prohibitive for scholars. Instead, I take advantage of the long time series and consistent battery of questions asked by the General Social Survey (GSS). The GSS administers a survey
to an average of 2,000 respondents representing adults living in non-institutional arrangements in the United States on a biennial basis. I create a new dataset built from restricted access GSS data from the 1998, 2000, 2002, 2004, 2006, and 2008 surveys.\textsuperscript{156} To the GSS data set, I merge tract and MSA level census data from 1970. To measure contemporary neighborhood demographics, I add linearly interpolated data from the 1990 and 2000 Census of Population and Housing and the 2007-2011 American Community Survey. For tracts not included in the American Community Survey, I use 2000 census data for all years of the GSS. The combined dataset includes tract-level data for 12,188 respondents from 117 metropolitan areas with an average of about 100 respondents per metro area.\textsuperscript{157} Although the GSS asks an enormous range of questions each year, only a subset of the survey questions is repeated. This repetition is crucial for my ability to estimate neighborhood effects because I rely on pooling across years to gain a large enough sample size. As a result, I restrict my analyses to questions that include at least 5,000 usable responses. At this threshold, the analyses include an average of 50 responses from each MSA. For the most part, my analyses only include white respondents, as this is the relevant population for my theory.\textsuperscript{158} I begin by determining the demographic characteristics of individuals who live in neighborhoods that were defended/segregated in 1970. In this analysis, my dependent variable is the 1970 \textit{Tract-Metro Difference in Percent White} described above. My independent variables include several demographic traits that are known to correlate with vote choice and ideology (Miller and Shanks 1996, Carmines and Stimson 1986, Green, Palmquist and Schickler 2002): the respondent’s race (a dummy variable coded 1 for White, non-

\textsuperscript{156} These are the years for which the GSS was able to provide census tract level information for every respondent, which is essential to my analysis. The tract-level information was provided in response to a sensitive data request submitted to the National Opinion Research Center at the University of Chicago.

\textsuperscript{157} Respondents who live outside of metro areas are excluded from these analyses.

\textsuperscript{158} It is interesting to note that the results hold for non-white respondents as well. This adds further evidence to my claim that neighborhood context is associated with political conservatism above and beyond the aggregation of residents’ demographic traits.
Hispanic)\textsuperscript{159}, Age, Education (where 0 is less than high school and 4 is a graduate degree), sex (coded 1 for Female), the total number of Kids under the age of 18 living at home, marital status (coded 1 for Married), and inflation adjusted Income.\textsuperscript{160} I also add the variable Mover, that is coded 1 if the respondent lived in a different city or state when she was 16 years old and 0 if she has lived in the same city.\textsuperscript{161} To account for the hierarchical structure of the data, I estimate a multilevel mixed-effects linear regression via maximum restricted likelihood, with random effects at the MSA level. This strategy adjusts the estimates and their errors for place-based correlations in attitudes. Table 7.3 presents the results (summary statistics are shown in appendix Table A7.2).

| Table 7.3: Modern Demographic Characteristics of 1970 Neighborhoods | \( \beta \) | SE | \( P>|z| \) |
|---|---|---|---|
| White, non-Hispanic | 0.104 | 0.004 | 0.000 |
| Age | -0.001 | 0.000 | 0.000 |
| Education | 0.003 | 0.001 | 0.018 |
| Female | -0.008 | 0.003 | 0.013 |
| Kids at home | -0.003 | 0.002 | 0.082 |
| Married | 0.019 | 0.004 | 0.000 |
| Income | 0.000 | 0.000 | 0.000 |
| Mover | 0.031 | 0.003 | 0.000 |
| Constant | -0.057 | 0.009 | 0.000 |
| Random effects parameter | 0.069 | 0.005 | |
| N | 10,701 | |
| Number of MSAs | 117 | |

Note: Mixed effects maximum likelihood regression with random effects for MSA

\textsuperscript{159} The GSS has a relatively small sample of non-Black racial and ethnic minorities, so I combine all nonwhite racial/ethnic categories.

\textsuperscript{160} Approximately 10% of the observations are missing income data. I imputed observations by regressing income on age, education, gender, race, work status, marital status, the number of people in the household, the size of the city, the presence of children at home, and dummy indicators for year for the non-missing observations, generating predicted values, and replacing the missing observations with the predictions.

\textsuperscript{161} Ideally, we would like to know whether or not the respondent moved neighborhoods as well, but the GSS does not ask this question.
The estimation reveals few surprises. For example, holding all other variables at their mean values, white respondents live in neighborhoods that were whiter than the metro area in 1970 (0.06), while respondents of color live in neighborhoods that were less white (-0.04). More educated respondents live in neighborhoods that were whiter, as do married, and higher income respondents. Respondents who had moved cities or states since they were 16 chose neighborhoods that were about 4 percentage points whiter than the metro area. Respondents who live in the same city tend to live in neighborhoods that mirrored the metro area. Those with children living at home tend to live in neighborhoods that were less white in 1970, but among middle and high-income respondents this effect reverses. That is, middle and high-income families with kids at home live in significantly whiter neighborhoods. A similar interactive effect occurs with age. Among the poor, older residents live in neighborhoods that were significantly less white in 1970, but among middle and high-income residents, there is no relationship between age and neighborhood characteristics. These results point to several interesting conclusions. First, the results appear to indicate that neighborhoods that were whiter than the metro area in 1970 are more expensive and more desirable. They also suggest that sorting is likely to have played a role in the development of ideology and partisanship of particular places. Finally, these results indicate that it is necessary to control for all of these individual demographic characteristics in any estimation seeking to identify neighborhood effects. I turn to this task next.

I begin with an overview of individual-level partisan affiliation and ideology. I use the 1970 Tract-Metro Difference in Percent White as my independent variable in all analyses. My

162 This interactive relationship is available upon request.
first dependent variable is the respondent’s *Partisan Identification*. Respondents were asked, “generally speaking, do you usually think of yourself as a Republican, Democrat, Independent, or what?” Follow up questions asked for the strength of partisanship and pushed independents to identify as leaners. The resulting measure is a seven-point scale running from strong Democrat to strong Republican. Next, I analyze *Ideology* (where 1 is extremely liberal and 7 is extremely conservative), and finally *Republican Presidential Vote*, coded 1 if the respondent voted for the Republican candidate in the most recent election and 0 otherwise. 163 I control for all of the demographic traits included in Table 6.3 except one – *Mover*. I omit this variable because it is missing for a large share of the total observations. Its inclusion does not affect the results presented (and the coefficient is not significant in any of the estimations). In a second set of analyses, I add controls for current neighborhood attributes to provide additional evidence that the political character of neighborhoods was developed historically. These neighborhood variables are the *Percent White* and *Percent Homeowners* in the tract, linearly interpolated for each year of the survey. Both sets of analyses are presented in Table 7.4.

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163 For this last analysis, I use a multi-level mixed effects logistic regression to account for the binary dependent variable.
### Table 7.4: Effect of 1970 Neighborhood Whiteness on Modern Partisanship & Conservatism

<table>
<thead>
<tr>
<th>Partisan Identification</th>
<th>Political Ideology</th>
<th>Republican Pres. Vote</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>( \beta )</td>
<td>( SE )</td>
</tr>
<tr>
<td>Tract-Metro Difference in % White, 1970</td>
<td>1.003</td>
<td>0.241</td>
</tr>
<tr>
<td>Age</td>
<td>-0.001</td>
<td>0.001</td>
</tr>
<tr>
<td>Education</td>
<td>-0.051</td>
<td>0.019</td>
</tr>
<tr>
<td>Female</td>
<td>-0.310</td>
<td>0.043</td>
</tr>
<tr>
<td>Kids at home</td>
<td>0.107</td>
<td>0.025</td>
</tr>
<tr>
<td>Married</td>
<td>0.326</td>
<td>0.049</td>
</tr>
<tr>
<td>Income ($100k)</td>
<td>0.417</td>
<td>0.058</td>
</tr>
<tr>
<td>Constant</td>
<td>2.845</td>
<td>0.091</td>
</tr>
<tr>
<td>Tract-Metro Difference in % Homeowners, 1970</td>
<td>0.899</td>
<td>0.254</td>
</tr>
<tr>
<td>Age</td>
<td>-0.002</td>
<td>0.001</td>
</tr>
<tr>
<td>Education</td>
<td>-0.045</td>
<td>0.019</td>
</tr>
<tr>
<td>Female</td>
<td>-0.315</td>
<td>0.043</td>
</tr>
<tr>
<td>Kids at home</td>
<td>0.096</td>
<td>0.025</td>
</tr>
<tr>
<td>Married</td>
<td>0.298</td>
<td>0.049</td>
</tr>
<tr>
<td>Income ($100k)</td>
<td>0.355</td>
<td>0.059</td>
</tr>
<tr>
<td>% White Tract</td>
<td>-0.153</td>
<td>0.146</td>
</tr>
<tr>
<td>% Homeowners Tract</td>
<td>0.635</td>
<td>0.122</td>
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<tr>
<td>Constant</td>
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<td>0.125</td>
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<tr>
<td>Random effects parameter</td>
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<td>0.026</td>
</tr>
<tr>
<td>N</td>
<td>8,049</td>
<td>6,558</td>
</tr>
<tr>
<td>Number of MSAs</td>
<td>116</td>
<td>116</td>
</tr>
</tbody>
</table>

Note: Mixed effects maximum likelihood regression with random effects for MSA; white non-Hispanic respondents only.
As was true in the aggregate, at the individual level, the historical persistence of neighborhoods is clear. Places that had defended their exclusive white character as of 1970 are home to significantly more Republican and conservative residents today. This is the case even when we account for both individual and aggregate demographic traits that predict partisanship and ideology.

The same pattern holds when I replace the dependent variable with particular policy items. Respondents who live in neighborhoods that were whiter in 1970 are more likely to view government spending as adequate or too high on categories like social security, parks, and mass transit, and they are more likely to believe that individuals, not the government, should be responsible for health, wealth, and the standard of living. For instance, respondents were asked to place themselves on a five-point scale where at one end the government should do more to solve our country’s problems and at the other end the government should leave things to individuals and private businesses. Comparing whites who live in neighborhoods that were minority dominated in the 1970s to those who live in neighborhoods that were white defended moves responses in a conservative direction by about a half of a standard deviation on this scale (from an average of 2.8 to 3.3).

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164 These questions were not asked of all respondents in all years. As a result, in some of the specific policy areas discussed below the total number of respondents falls below 5,000. However, it never falls below 3,000.

165 One question on which 1970 neighborhood whiteness was not associated with support for lower spending was education. When asked whether or not the government was spending the right amount “improving the nation’s education system”, there was no difference in the responses of individuals who live in neighborhoods that were whiter in 1970. Although this is obviously circumstantial evidence, it is plausible that the defended neighborhoods have higher quality schools and this is a feature that attracts certain residents who are supportive of higher educational expenditures.
Prejudice and Policy

If integration battles are linked to the ideology of defended neighborhoods, then we would expect residents of these places to have particularly conservative views when it comes to race. I find strong support for this contention. There are many different questions that tap racial views included in the GSS. I use several as dependent variables that are both common in the literature and have a long enough time span to generate sufficient respondents. I begin with an analysis of racial affect and prejudice. The first question asks respondents whether or not they would be in favor of having a family member marry a black person. The second question probes views on inequality. It states “On the average (Negroes/Blacks/African-Americans) have worse jobs, income, and housing than white people.” Then it asks: “Do you think these differences are mainly due to discrimination?” and/or “Because most (Negroes/Blacks/African-Americans) don't have the chance for education that it takes to rise out of poverty?” Finally, I analyze responses to the question, “Do you agree strongly, agree somewhat, neither agree nor disagree, disagree somewhat, or disagree strongly with the following statement: Irish, Italians, Jewish and many other minorities overcame prejudice and worked their way up. Blacks should do the same without special favors.”

All dependent variables are coded so that higher values equate to a more conservative position. The structure of these analyses is the same as those included in the top panel of Table 7.4 (mixed effects maximum likelihood estimation with random effects for MSAs and controls for individual demographic characteristics). Rather than present regression tables, Figure 7.3 graphically display the marginal effects on Tract-Metro Difference in Percent White, 1970 holding all other variables at their mean values.
The results presented in Figure 6.3 offer a consistent picture of white residents who live in neighborhoods that were whiter than the metro area in 1970. They are more strongly opposed to having a relative marry a black person, they are less likely to see persistent racial inequality in jobs, income, and housing as the result or discrimination or educational opportunities, and they are more likely to agree that blacks should have to work their way up like white ethnic groups. In sum, residents of whiter neighborhoods are more likely to want to avoid close contact with blacks, to blame blacks for conditions of inequality, and put the onus on individuals to advance their position.
These attitudes translate into conservative views on race-targeted policies. To show this, I analyze two questions. The first question reads “Some people think that (Blacks/Negroes/African Americans) have been discriminated against for so long that the government has a special obligation to help improve their living standards. Others believe that the government should not be giving special treatment to (Blacks/Negroes/African Americans). Where would you place yourself on this scale?” Responses were coded on a five-point scale ranging from strong obligation to no special treatment. The second question focuses on affirmative action and asks whether or not respondents are “for or against preferential hiring and promotion of blacks.” The responses are coded on a five-point scale ranging from strongly favoring to strongly opposing. Figure 7.4 presents the marginal effects of the regression of these policy responses on *Tract-Metro Difference in Percent White, 1970* holding all other variables at their mean values.

![Figure 7.4: Effect of 1970 Whiteness of Neighborhood on Support for Race-Targeted Policy](image)

Figure 7.4 reveals that residents who live in neighborhoods that were whiter in 1970 are more likely to hold conservative views on race-targeted policy. They are less likely to feel that the
government has an obligation to make right discrimination against blacks and less likely to support affirmative action.

**Conclusion**

In sum, there is strong evidence that the language and ideology developed around integration battles in post-war urban America persists. During the tumultuous 1940s, 50s, and 60s, faced with changing legal and rhetorical regimes, white homeowners seeking to keep minorities out of their neighborhoods began to shed the language of racial exclusivity. They understood the defense of their homes and spaces as a defense of their rights as homeowners and freedoms as individuals. Hayward (2013) describes this as the development of an “identity story,” a story about “who ‘we Americans’ are: about what we value, what we want and deserve, and what it is that serves our good” (p119). Hayward is clear though – the Americans included in this vision were not all Americans, but rather all white Americans. Yet, the privileged residents of defended neighborhoods promulgated the argument that “race doesn’t matter” (Hayward 2013, p176). Instead, they relied on a frame that emphasized their hard work, frugality, and investment in their children’s education. This perspective persists in these places. This chapter links 1970s neighborhood demographics to feelings of distance from African Americans, a belief that racial inequality is the result of lack of individual motivation, opposition to policies that redress disparities in outcomes across racial groups, and commitment to conservatism more generally. Residents who live in defended neighborhoods today are more

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166 Hayward (2013) situates the genesis of this identity story earlier in the 20th century than I do here. She argues that it was borne of economic need among developers seeking land use planning and financial support from the government. My narrative is not incompatible with her view. It makes sense that the language adopted by rights-oriented white neighborhoods was readily available when they needed to use it. Hayward argues that the narrative of Americans as a homeowning people developed by real estate interests functioned as a “frame to many ordinary stories” (p167).
likely to identify as Republicans and more likely to vote for Republican presidential candidates.

The local roots of modern conservatism are deep.
Chapter 8: Conclusion

In the early decades of the 20th Century, homeownership rates in the United States were already much higher than in many other advanced democracies. As of 1914, in the United Kingdom 10% of households owned their homes (House of Commons Research Paper, 1999). In the United States the figure was about 45%. During the late 1940s homeownership rates for France and Germany were about 31% and 27% respectively (Kohl 2014). For most families, the home was (and is) the single largest component of household wealth (Knoll et al 2014). Not only homeowners, but all property owners, land-oriented businesses (like real estate agencies), and local governments reliant on property taxes, had a strong incentive to protect and enhance the value of property. In a world of limited resources, they also had a strong incentive to politically control the distribution of public goods increasingly offered to city dwellers.

Yet, homeownership and political power were not equally available to all urban residents. In 1900, the homeownership rate among whites was more than double the rate among blacks (Collins and Margo 1999). Chinese and Japanese immigrants were barred from owning property completely in many states, and everywhere the vast majority of blacks, Asians, and Latinos were prohibited from voting (Keyssar 2000). Thus, as America became an urban nation, it was white property owners who dictated the policies of local governments. They used their power to pursue segregation. By invoking the power of land use regulation and zoning, city governments institutionalized prevailing race and class hierarchies.

In cities across the country, “Chinatowns” (McWilliams 1964, p105), Sonoratowns (Torres-Rouff 2013, p139) and “Niggertowns (Litwack 2004, p9) were walled-off by a combination of public policy, violence, and custom. Local governments then proceeded to
systematically underinvest in these neighborhoods, denying them adequate sewers, paved roads, garbage collection, or public health initiatives. By the onset of the Second World War, city governments had become proficient segregators. When millions of dollars were spent renewing and rebuilding urban communities, segregation was reinforced and deepened.

By the hands of local governments the foundation of Sampson’s (2012) powerful 21st century neighborhood effects, was laid. Using Chicago as a lens with which to view large, diverse cities, Sampson shows that today, neighborhoods differ significantly with respect to “crime, poverty, child health, protest, leadership networks, civic engagement, home foreclosures, teen births, altruism, mobility flows, collective efficacy, [and] immigration” (p6). These differences, Patrick Sharkey (2013) explains, are “not attributable primarily to factors that lie within the home or within the individual,” but rather to the place itself, passed down from generation to generation (p21). Sampson (2012) argues that, as a result of racial segregation, neighborhood disadvantage is “most pronounced in the black community.” These inequalities, Sampson tells us are, “durable and multiplex but not inevitable or natural” (p99).

The consequences are irrefutable. Scholars have persuasively demonstrated that segregation causes higher poverty rates for blacks and lower poverty rates for whites (Ananat 2011), lower high school and college graduation rates among blacks (Cutler and Glaeser 1997), higher imprisonment rates (Burch 2014), and higher rates of single-motherhood among blacks (Cutler and Glaeser 1997). Neighborhood disadvantage is also related to black/white income inequality, lack of employment stability among blacks, and larger gaps in cognitive skills between blacks and whites (Sharkey 2013). Cohen and Dawson (1993) show that neighborhood poverty undermines blacks’ attachment to and involvement in the political system. I’ve shown that segregation leads to racial political polarization and underfunding of public goods.
Cumulatively, these results suggest that both growing up and living in disadvantaged places, while not wholly determining one’s fate (e.g. Vance 2016), does leave little margin for error. “Mobility out of the poorest neighborhoods,” Sharkey (2013) says “may be even less common than mobility out of individual poverty” (p35). Perversely, home ownership in this environment serves to limit mobility rather than enhance it.

In the first half of the 20th century, advantaged and disadvantaged neighborhoods resided within the political boundaries of large central cities. In the second half of the century, when the suburbs captured most of the population growth, the physical, and more importantly political, distance between advantage and disadvantage widened. Today, the most advantaged places are located outside of central cities altogether so that the most disadvantaged residents have no direct role to play in decisions about building affordable housing, expanding public transportation, or diversifying schools. In these places residents are more politically conservative; they vote at higher rates for Republican presidential candidates, support low taxes, want limited spending, and see inequality as the result of individual failings. Recent research suggests that privatization of public services is the most recent response to integration. Trounstine (2015) finds that a greater share of communities’ security and educational needs are met through private provision in more diverse communities. Similarly, Betts and Fairlie (2003) show that native-born American families are more likely to send their children to private high school in response to increased immigration. Given this distribution of preferences and opinions, proposals to reduce inequality through mechanisms like regional governments or tax-base sharing (e.g. Orfield 2002, Katz 1999) are simply politically infeasible.

However, moving the policy debate to the state or federal level, could be more workable. Given that property owners’ anxiety about protecting their investment is the driver of the many
patterns I reveal in this text, one solution would be to address this concern directly. William Fischel (2015), has argued that reducing federal tax-subsidies for owner-occupied housing would curtail homeowner demands for exclusivity.

State governments may also be able to make significant progress in generating outcomes that approach equality. There are lessons to be learned from the history of public school provision and finance. In a detailed historical analysis comparing the Charlotte and Atlanta metropolitan areas, Lassiter (2006), finds that the large geographic footprint of Charlotte’s school system ensured that school integration would be successful. Conversely, Atlanta’s fragmentation ensured that it failed. This indicates that states could analyze school district and municipality incorporation with an eye toward integration; limiting fragmentation and opportunities for segregation. Lafortune, Rothstein, and Schanzenbach (2015) show that recent school finance equalization policies have focused not on the gap in funding between advantaged and disadvantaged districts, but rather on ensuring a minimum adequate level of funding for all districts. They find that these reforms significantly reduce inequalities in student achievement outcomes between districts.

School finance reform has been possible because state constitutions guarantee the provision of public schooling and lawsuits (and threats of lawsuits), have forced the hand of state legislatures. Education is not the only public good guaranteed in state constitutions though. In fact, state constitutions are the locus of many positive rights. As Zackin (2013) details, they also obligate state governments to “care the poor, aged, and mentally ill, preserve the natural environment…and protect debtors’ homes and dignity” (p3). Bridges (2015) demonstrates that state constitutions provide state governments substantial authority in the regulation of water provision and the protection of labor. Leonard (2010) outlines state constitutional requirements
mandating provision of health care and public health. Thus, the centralization of public goods financing, or at least the provision of a minimum level of public goods support through state governments is possible, though obviously politically contentious. At the end of the day, what is clear is that much is at stake in the local provision of public goods and the politics of segregation.
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Data Appendix

Chapter 1
Coding of Foreign Born Populations 1900-1940

The Census of Population and Housing collected detailed breakdowns regarding the origin of immigrant populations for large cities between 1900 and 1940. However, the categories of origin changed from Census to Census. I created similar categories by combining subcategories (e.g. I created a Poland variable by combining Austrian Poland, German Poland, and Russian Poland). Using the table available at: [http://www.census.gov/population/www/documentation/twps0029/tab04.html](http://www.census.gov/population/www/documentation/twps0029/tab04.html), I created a category of immigrants from Southern and Eastern Europe, Asia, and Latin America. Because immigrants from Turkey in Asia were only separately categorized in some Census years, all Turkish immigrants are coded as being Southern and Eastern European, regardless of continent. The category foreign born nonwhite was created by adding the foreign born populations from countries that the 1930 Census designated as sending a majority of immigrants who were classified as nonwhite (China, Japan, India, Mexico, and West Indies). To generate a measure of foreign born diversity, I calculated a Herfindahl Index:

\[
Diversity = 1 - \sum_{f=1}^{F} \pi_f^2
\]

where, \(\pi_f\) is the population share of the foreign-born group \(f\) and \(F\) is the total number of foreign-born groups (52). The following foreign born groups were listed in Censuses 1900-1940. The table presents summary statistics for all 291 cities included in these data.

<table>
<thead>
<tr>
<th>Country of Origin</th>
<th>Mean</th>
<th>Std. Dev.</th>
<th>Min</th>
<th>Max</th>
</tr>
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<tbody>
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<td>0.04%</td>
<td>0.00%</td>
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<td>0.31%</td>
<td>0.92%</td>
<td>0.00%</td>
<td>15.72%</td>
</tr>
<tr>
<td>Turkey Bulgaria Romania</td>
<td>0.66%</td>
<td>1.09%</td>
<td>0.00%</td>
<td>16.93%</td>
</tr>
<tr>
<td>Wales</td>
<td>0.71%</td>
<td>1.60%</td>
<td>0.00%</td>
<td>26.78%</td>
</tr>
<tr>
<td>West Indies</td>
<td>0.28%</td>
<td>2.08%</td>
<td>0.00%</td>
<td>71.70%</td>
</tr>
<tr>
<td>Yugoslavia</td>
<td>0.72%</td>
<td>1.98%</td>
<td>0.00%</td>
<td>23.65%</td>
</tr>
</tbody>
</table>
## A1.1: Summary Statistics Historical City Expenditures

<table>
<thead>
<tr>
<th>Variable</th>
<th>N</th>
<th>Mean</th>
<th>Std. Dev.</th>
<th>Min</th>
<th>Max</th>
</tr>
</thead>
<tbody>
<tr>
<td>Expenditures Per Capita (logged)</td>
<td>1,397</td>
<td>6.165</td>
<td>0.512</td>
<td>4.075</td>
<td>8.936</td>
</tr>
<tr>
<td>Density</td>
<td>1,397</td>
<td>11.993</td>
<td>8.870</td>
<td>0.747</td>
<td>79.009</td>
</tr>
<tr>
<td>Population (logged)</td>
<td>1,397</td>
<td>11.401</td>
<td>0.944</td>
<td>9.333</td>
<td>15.792</td>
</tr>
<tr>
<td>% Nonwhite</td>
<td>1,116</td>
<td>0.107</td>
<td>0.128</td>
<td>-0.031</td>
<td>0.558</td>
</tr>
<tr>
<td>% Homeowners</td>
<td>1,111</td>
<td>0.377</td>
<td>0.100</td>
<td>0.100</td>
<td>0.697</td>
</tr>
<tr>
<td>Foreign born diversity</td>
<td>1,057</td>
<td>0.834</td>
<td>0.089</td>
<td>0.233</td>
<td>0.938</td>
</tr>
<tr>
<td>Assessed Value (millions)</td>
<td>1,397</td>
<td>2.442</td>
<td>10.024</td>
<td>0.005</td>
<td>199.837</td>
</tr>
<tr>
<td>% Professionals</td>
<td>1,084</td>
<td>0.083</td>
<td>0.031</td>
<td>0.016</td>
<td>0.257</td>
</tr>
</tbody>
</table>

### Figure A1.1: Relationship between City Level Entropy and % White

![Relationship between City Level Entropy and % White](image-url)
Chapter 2

Table A2.1: Summary Statistics Zoning Ordinances

<table>
<thead>
<tr>
<th>Variable</th>
<th>Obs</th>
<th>Mean</th>
<th>Std. Dev</th>
<th>Min</th>
<th>Max</th>
</tr>
</thead>
<tbody>
<tr>
<td>Zoning Ordinance</td>
<td>4,293</td>
<td>0.032</td>
<td>0.175</td>
<td>0.000</td>
<td>1.000</td>
</tr>
<tr>
<td>Expenditure $ Per Capita (logged)</td>
<td>4,293</td>
<td>3.346</td>
<td>0.413</td>
<td>1.305</td>
<td>6.165</td>
</tr>
<tr>
<td>Property Taxes $ Per Capita</td>
<td>4,293</td>
<td>19.798</td>
<td>8.045</td>
<td>1.794</td>
<td>66.837</td>
</tr>
<tr>
<td>Presidential turnout</td>
<td>4,293</td>
<td>0.514</td>
<td>0.177</td>
<td>0.013</td>
<td>0.991</td>
</tr>
<tr>
<td>Republican Vote Share</td>
<td>4,293</td>
<td>0.471</td>
<td>0.171</td>
<td>0.000</td>
<td>0.838</td>
</tr>
<tr>
<td>Midwest</td>
<td>4,293</td>
<td>0.314</td>
<td>0.464</td>
<td>0.000</td>
<td>1.000</td>
</tr>
<tr>
<td>North</td>
<td>4,293</td>
<td>0.422</td>
<td>0.494</td>
<td>0.000</td>
<td>1.000</td>
</tr>
<tr>
<td>South</td>
<td>4,293</td>
<td>0.195</td>
<td>0.396</td>
<td>0.000</td>
<td>1.000</td>
</tr>
<tr>
<td>West</td>
<td>4,293</td>
<td>0.070</td>
<td>0.255</td>
<td>0.000</td>
<td>1.000</td>
</tr>
<tr>
<td>% For. Born White</td>
<td>3,740</td>
<td>0.182</td>
<td>0.116</td>
<td>0.006</td>
<td>0.603</td>
</tr>
<tr>
<td>% For. Born Non White</td>
<td>3,740</td>
<td>0.005</td>
<td>0.024</td>
<td>0.000</td>
<td>0.398</td>
</tr>
<tr>
<td>% Black</td>
<td>3,654</td>
<td>0.081</td>
<td>0.125</td>
<td>0.000</td>
<td>0.557</td>
</tr>
<tr>
<td>Highways $ Per Capita</td>
<td>4,265</td>
<td>2.379</td>
<td>1.027</td>
<td>0.230</td>
<td>8.014</td>
</tr>
<tr>
<td>Health $ Per Capita</td>
<td>4,288</td>
<td>0.411</td>
<td>0.328</td>
<td>0.015</td>
<td>3.525</td>
</tr>
<tr>
<td>Fire $ Per Capita</td>
<td>4,293</td>
<td>2.148</td>
<td>0.815</td>
<td>0.364</td>
<td>10.945</td>
</tr>
<tr>
<td>Density</td>
<td>4,283</td>
<td>11.732</td>
<td>8.414</td>
<td>0.747</td>
<td>79.009</td>
</tr>
<tr>
<td>% Renters</td>
<td>3,577</td>
<td>0.628</td>
<td>0.101</td>
<td>0.303</td>
<td>0.903</td>
</tr>
<tr>
<td>% Employed in Manufacturing</td>
<td>3,554</td>
<td>0.533</td>
<td>0.137</td>
<td>0.109</td>
<td>0.838</td>
</tr>
<tr>
<td>% Employed in Agriculture</td>
<td>3,554</td>
<td>0.017</td>
<td>0.043</td>
<td>0.002</td>
<td>0.767</td>
</tr>
<tr>
<td>10 year population growth rate</td>
<td>3,592</td>
<td>0.327</td>
<td>0.410</td>
<td>-0.867</td>
<td>5.397</td>
</tr>
<tr>
<td>School segregation</td>
<td>4,293</td>
<td>0.223</td>
<td>0.412</td>
<td>0.000</td>
<td>1.000</td>
</tr>
<tr>
<td>% Unemployed</td>
<td>3,554</td>
<td>0.635</td>
<td>0.064</td>
<td>0.000</td>
<td>0.820</td>
</tr>
</tbody>
</table>
### Chapter 3

#### Table A3.1: Summary Statistics Sewer Extensions, Historical Urban Ecological Dataset

<table>
<thead>
<tr>
<th>Variable</th>
<th>Obs</th>
<th>Mean</th>
<th>Std. Dev</th>
<th>Min</th>
<th>Max</th>
</tr>
</thead>
<tbody>
<tr>
<td>New Segments Since Last Census</td>
<td>541</td>
<td>37.20</td>
<td>138.45</td>
<td>0.00</td>
<td>1476.00</td>
</tr>
<tr>
<td>Total New Segments Since Last Census</td>
<td>541</td>
<td>1237.02</td>
<td>1953.43</td>
<td>0.00</td>
<td>5933.00</td>
</tr>
<tr>
<td>Total Segments in Ward</td>
<td>541</td>
<td>857.72</td>
<td>952.77</td>
<td>181.00</td>
<td>8375.00</td>
</tr>
<tr>
<td>% Segments Built</td>
<td>541</td>
<td>0.64</td>
<td>0.25</td>
<td>0.00</td>
<td>0.96</td>
</tr>
<tr>
<td>% Foreign Born</td>
<td>541</td>
<td>0.25</td>
<td>0.12</td>
<td>0.01</td>
<td>0.64</td>
</tr>
<tr>
<td>% Renters</td>
<td>271</td>
<td>0.74</td>
<td>0.13</td>
<td>0.34</td>
<td>0.98</td>
</tr>
<tr>
<td>Renter Segregation</td>
<td>541</td>
<td>0.09</td>
<td>0.03</td>
<td>0.04</td>
<td>0.14</td>
</tr>
<tr>
<td>% Black</td>
<td>541</td>
<td>0.08</td>
<td>0.14</td>
<td>0.00</td>
<td>0.95</td>
</tr>
<tr>
<td>Racial Segregation</td>
<td>541</td>
<td>0.47</td>
<td>0.16</td>
<td>0.29</td>
<td>0.86</td>
</tr>
</tbody>
</table>

#### Table A3.2: Summary Statistics: Public Sewer Connections

<table>
<thead>
<tr>
<th>Variable</th>
<th>Obs</th>
<th>Mean</th>
<th>Std. Dev</th>
<th>Min</th>
<th>Max</th>
</tr>
</thead>
<tbody>
<tr>
<td>% Public Sewer in Tract</td>
<td>146,102</td>
<td>0.773</td>
<td>0.328</td>
<td>0.000</td>
<td>1.000</td>
</tr>
<tr>
<td>% Nonwhite</td>
<td>146,102</td>
<td>0.203</td>
<td>0.280</td>
<td>0.000</td>
<td>1.000</td>
</tr>
<tr>
<td>Racial Segregation</td>
<td>146,102</td>
<td>0.216</td>
<td>0.197</td>
<td>0.000</td>
<td>0.915</td>
</tr>
<tr>
<td>% Renters</td>
<td>146,102</td>
<td>0.356</td>
<td>0.238</td>
<td>0.000</td>
<td>1.000</td>
</tr>
<tr>
<td>Renter Segregation</td>
<td>146,102</td>
<td>0.115</td>
<td>0.086</td>
<td>0.000</td>
<td>0.786</td>
</tr>
<tr>
<td>% Wealthy</td>
<td>146,102</td>
<td>0.183</td>
<td>0.155</td>
<td>0.000</td>
<td>1.000</td>
</tr>
<tr>
<td>City Population</td>
<td>146,102</td>
<td>392911</td>
<td>686109</td>
<td>59</td>
<td>3480384</td>
</tr>
<tr>
<td>City Public Sewer Connections</td>
<td>146,102</td>
<td>139100</td>
<td>261531</td>
<td>0.000</td>
<td>1269144</td>
</tr>
<tr>
<td>Midwest</td>
<td>146,102</td>
<td>0.234</td>
<td>0.423</td>
<td>0.000</td>
<td>1.000</td>
</tr>
<tr>
<td>South</td>
<td>146,102</td>
<td>0.307</td>
<td>0.461</td>
<td>0.000</td>
<td>1.000</td>
</tr>
<tr>
<td>West</td>
<td>146,102</td>
<td>0.229</td>
<td>0.421</td>
<td>0.000</td>
<td>1.000</td>
</tr>
</tbody>
</table>
Chapter 4

Table A4.1: Summary Statistics: Urban Renewal Applications and Disbursement

<table>
<thead>
<tr>
<th>Variable</th>
<th>Obs</th>
<th>Mean</th>
<th>Std. Dev.</th>
<th>Min</th>
<th>Max</th>
</tr>
</thead>
<tbody>
<tr>
<td>Racial Segregation, 1980</td>
<td>172</td>
<td>0.299</td>
<td>0.158</td>
<td>0.015</td>
<td>0.671</td>
</tr>
<tr>
<td>Renter Segregation, 1980</td>
<td>172</td>
<td>0.139</td>
<td>0.053</td>
<td>0.014</td>
<td>0.284</td>
</tr>
<tr>
<td>Urban Renewal Funds Approved, $100 million</td>
<td>173</td>
<td>0.466</td>
<td>0.734</td>
<td>0.000</td>
<td>5.481</td>
</tr>
<tr>
<td>Urban Renewal Funds Disbursed, $100 million</td>
<td>173</td>
<td>0.315</td>
<td>0.536</td>
<td>0.000</td>
<td>4.165</td>
</tr>
<tr>
<td>% Owner occupied, 1950</td>
<td>173</td>
<td>47.127</td>
<td>11.692</td>
<td>12.400</td>
<td>70.700</td>
</tr>
<tr>
<td>Median Home Value, 1950 (log)</td>
<td>173</td>
<td>9.0</td>
<td>3.0</td>
<td>8.4</td>
<td>9.9</td>
</tr>
<tr>
<td>% Built Pre-1920, 1950</td>
<td>172</td>
<td>67.8</td>
<td>17.6</td>
<td>6.1</td>
<td>94.6</td>
</tr>
<tr>
<td>% Units w/o Plumbing, 1950</td>
<td>172</td>
<td>22.4</td>
<td>12.5</td>
<td>2.8</td>
<td>62.4</td>
</tr>
<tr>
<td>Population (millions), 1950</td>
<td>173</td>
<td>277794.0</td>
<td>702673.5</td>
<td>38946.0</td>
<td>7891957.0</td>
</tr>
<tr>
<td>% Nonwhite, 1950</td>
<td>173</td>
<td>11.7</td>
<td>11.9</td>
<td>0.1</td>
<td>44.0</td>
</tr>
<tr>
<td>% Employed Manufacturing, 1950</td>
<td>173</td>
<td>31.2</td>
<td>13.7</td>
<td>6.6</td>
<td>64.9</td>
</tr>
<tr>
<td>Median Education, 1950</td>
<td>173</td>
<td>10.1</td>
<td>1.2</td>
<td>7.9</td>
<td>12.7</td>
</tr>
<tr>
<td>Family Income, 1950 (log)</td>
<td>173</td>
<td>8.1</td>
<td>0.1</td>
<td>7.6</td>
<td>8.6</td>
</tr>
<tr>
<td>% Incomes Below $2000, 1950</td>
<td>173</td>
<td>21.4</td>
<td>7.5</td>
<td>10.0</td>
<td>48.8</td>
</tr>
<tr>
<td>% Housing Operations</td>
<td>170</td>
<td>0.017</td>
<td>0.020</td>
<td>0.000</td>
<td>0.115</td>
</tr>
<tr>
<td>Public Housing Units Per Capita</td>
<td>173</td>
<td>1104.9</td>
<td>802.8</td>
<td>0.0</td>
<td>3819.0</td>
</tr>
</tbody>
</table>

Table A4.2 Summary Statistics Open Housing Initiative Survey

<table>
<thead>
<tr>
<th>Variable</th>
<th>Obs</th>
<th>Mean</th>
<th>Std. Dev.</th>
<th>Min</th>
<th>Max</th>
</tr>
</thead>
<tbody>
<tr>
<td>Opposed to Fair Housing</td>
<td>4,860</td>
<td>0.630</td>
<td>0.483</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Democratic Presidential Voter</td>
<td>4,860</td>
<td>0.591</td>
<td>0.492</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Home Owner</td>
<td>4,860</td>
<td>0.712</td>
<td>0.453</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Education Level</td>
<td>4,860</td>
<td>3.305</td>
<td>1.365</td>
<td>1</td>
<td>6</td>
</tr>
<tr>
<td>Age</td>
<td>4,860</td>
<td>3.021</td>
<td>1.535</td>
<td>1</td>
<td>6</td>
</tr>
<tr>
<td>Economic Level</td>
<td>4,860</td>
<td>5.007</td>
<td>1.755</td>
<td>1</td>
<td>10</td>
</tr>
<tr>
<td>White</td>
<td>4,860</td>
<td>0.933</td>
<td>0.250</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Union Member</td>
<td>4,860</td>
<td>0.305</td>
<td>0.461</td>
<td>0</td>
<td>1</td>
</tr>
</tbody>
</table>
### Chapter 5

**Table A5.1: Summary Statistics Segregation Across Cities**

<table>
<thead>
<tr>
<th>Variable</th>
<th>Obs</th>
<th>Mean</th>
<th>Std. Dev.</th>
<th>Min</th>
<th>Max</th>
</tr>
</thead>
<tbody>
<tr>
<td>Across-City Share of Racial Segregation</td>
<td>618</td>
<td>0.4080</td>
<td>0.1799</td>
<td>0.0000</td>
<td>0.8793</td>
</tr>
<tr>
<td>Across-City Share of Renter Segregation</td>
<td>618</td>
<td>0.3501</td>
<td>0.1481</td>
<td>0.0000</td>
<td>0.8021</td>
</tr>
<tr>
<td>Across-City Share of Wealthy Segregation</td>
<td>618</td>
<td>0.2909</td>
<td>0.1737</td>
<td>0.0000</td>
<td>0.7650</td>
</tr>
<tr>
<td>Minority Mayor</td>
<td>618</td>
<td>0.2751</td>
<td>0.4469</td>
<td>0.0000</td>
<td>1.0000</td>
</tr>
<tr>
<td>Direct General Expenditure Per Capita</td>
<td>618</td>
<td>1.3443</td>
<td>0.9529</td>
<td>0.3131</td>
<td>9.9550</td>
</tr>
<tr>
<td>% Spent on Policing</td>
<td>618</td>
<td>0.1408</td>
<td>0.0511</td>
<td>0.0393</td>
<td>0.3244</td>
</tr>
<tr>
<td>Crime Rate</td>
<td>618</td>
<td>0.0917</td>
<td>0.0426</td>
<td>0.0000</td>
<td>0.4194</td>
</tr>
<tr>
<td>Population (logged)</td>
<td>618</td>
<td>12.0515</td>
<td>0.9916</td>
<td>9.8635</td>
<td>15.1231</td>
</tr>
</tbody>
</table>
### Chapter 6

<p>| Table A6.1: Summary Statistics Racial Polarization Data |
|---------------------------------|-------|-------|-------|-------|
| Variable                        | Obs   | Mean  | Std. Dev. | Min   | Max   |
| Largest Racial Divide           | 91    | 0.481 | 0.213     | 0.016 | 0.934 |
| H Index – multi-group           | 91    | 0.376 | 0.119     | 0.183 | 0.635 |
| H Index – two-group             | 91    | 0.353 | 0.114     | 0.156 | 0.614 |
| Diversity                       | 91    | 0.623 | 0.088     | 0.323 | 0.736 |
| % Asian                         | 91    | 0.067 | 0.074     | 0.008 | 0.318 |
| % Black                         | 91    | 0.275 | 0.181     | 0.030 | 0.815 |
| % Latino                        | 91    | 0.229 | 0.155     | 0.009 | 0.605 |
| Median HH Income                | 91    | 36725 | 10114     | 17268 | 75982 |
| % Renters                       | 91    | 0.535 | 0.092     | 0.368 | 0.718 |
| % College Ed                    | 91    | 0.167 | 0.056     | 0.049 | 0.359 |
| Biracial contest                | 91    | 0.725 | 0.449     | 0     | 1     |
| Nonpartisan Election            | 91    | 0.714 | 0.454     | 0     | 1     |
| Primary Election                | 91    | 0.352 | 0.480     | 0     | 1     |
| Population (logged)             | 91    | 14.166| 0.826     | 13.065| 15.921|
| White Ideology                  | 86    | 3.835 | 0.648     | 2.667 | 5.250 |</p>
<table>
<thead>
<tr>
<th>City Name</th>
<th>Mean H Index Multi-Group</th>
<th>Mean H Index Two-Group</th>
<th>Black/White</th>
<th>Latino/White</th>
<th>Black/Latino</th>
<th>Largest Racial Divide, Number of Elections</th>
</tr>
</thead>
<tbody>
<tr>
<td>Austin, TX</td>
<td>0.204</td>
<td>0.208</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
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<td>San Diego, CA</td>
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<td>0.491</td>
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### Table A6.3: Summary Statistics Census of Government Finance and Population

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<th>SD</th>
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<th>Max</th>
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<tbody>
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<td>Direct General Expend per cap</td>
<td>16,831</td>
<td>1.332</td>
<td>1.304</td>
<td>0.022</td>
<td>78.010</td>
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<tr>
<td>Highways per cap</td>
<td>16,642</td>
<td>0.090</td>
<td>0.060</td>
<td>0.000</td>
<td>1.225</td>
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<tr>
<td>Parks per cap</td>
<td>16,673</td>
<td>0.209</td>
<td>0.109</td>
<td>0.000</td>
<td>1.746</td>
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<td>Police per cap</td>
<td>15,809</td>
<td>0.069</td>
<td>0.073</td>
<td>0.000</td>
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<td>Sewers per cap</td>
<td>13,832</td>
<td>0.106</td>
<td>0.089</td>
<td>0.000</td>
<td>1.762</td>
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<tr>
<td>Welfare, Health &amp; Housing per cap</td>
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<td>0.066</td>
<td>0.156</td>
<td>0.000</td>
<td>6.321</td>
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<td>Own Source Revenue per cap</td>
<td>16,830</td>
<td>1.065</td>
<td>1.174</td>
<td>0.020</td>
<td>84.284</td>
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<td>Two-Group H Index</td>
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<td>0.074</td>
<td>0.094</td>
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<td>Diversity</td>
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<td>0.321</td>
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<td>% Black</td>
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<td>0.099</td>
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<td>% Asian</td>
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<td>0.034</td>
<td>0.057</td>
<td>0.000</td>
<td>0.674</td>
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<td>% Latino</td>
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<td>0.165</td>
<td>0.000</td>
<td>0.987</td>
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<tr>
<td>5 yr Δ % Black</td>
<td>14,284</td>
<td>0.007</td>
<td>0.019</td>
<td>-0.101</td>
<td>0.229</td>
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<tr>
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<tr>
<td>5 yr Δ % Asian</td>
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<td>Median income</td>
<td>16,831</td>
<td>60112</td>
<td>24654</td>
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<tr>
<td>% Local Gov Employees</td>
<td>16,831</td>
<td>3.364</td>
<td>0.992</td>
<td>0.302</td>
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<td>% Renters</td>
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<td>0.358</td>
<td>0.140</td>
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<td>0.911</td>
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<td>% Over 65</td>
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<td>0.051</td>
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<td>% College degree</td>
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### Table A6.4: First Stage Regression of Segregation on Waterways and Population

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<tr>
<td></td>
<td>( \beta )</td>
<td>SE</td>
<td>P&gt;</td>
<td>t</td>
</tr>
<tr>
<td># Waterways</td>
<td>0.005</td>
<td>0.00</td>
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<td>Population(logged)</td>
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<td>0.00</td>
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<td>Lagged DV</td>
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<td>Diversity</td>
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<td>% Black</td>
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<tr>
<td>% Asian</td>
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<td>% Latino</td>
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<tr>
<td>Median Income (1000s)</td>
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<tr>
<td>% Local Gov. Employees</td>
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<td>0.01</td>
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<tr>
<td>% Renters</td>
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<td>0.00</td>
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<tr>
<td>% Over 65</td>
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<tr>
<td>% College Grad</td>
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<td>N</td>
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Note: First stage of two stage least squares regressions with fixed effects for regions and year (not shown); Instrumented: Two-group H Index of segregation; Excluded Instruments: # of Waterways, Population logged

### Table A6.5: Summary Statistics Sewer Overflows, EPA

<table>
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<th>Variable</th>
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<th>SD</th>
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<td>Logged Overflows per capita</td>
<td>1,417</td>
<td>0.508</td>
<td>1.353</td>
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<td>Racial Segregation</td>
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<td>% Renters</td>
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<td>0.324</td>
<td>0.124</td>
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</tr>
<tr>
<td>% Urban</td>
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<td>% Black</td>
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<td>0.086</td>
<td>0.164</td>
<td>0.000</td>
<td>0.978</td>
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<tr>
<td>% Asian</td>
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<td>0.012</td>
<td>0.025</td>
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<td>% Latino</td>
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<td>0.053</td>
<td>0.092</td>
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<tr>
<td>Median Income (1000s)</td>
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<td>14287</td>
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<tr>
<td>Subventions Per Capita (1000s)</td>
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<td>391.648</td>
<td>1397.263</td>
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282
Chapter 7

Table A7.1 Summary Statistics: Democratic Vote Share, 2008, Harvard Elections Database Archive

<table>
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<th>Std. Dev.</th>
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<td>44,958</td>
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<td>0.200</td>
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<td>0.019</td>
<td>0.216</td>
<td>-0.939</td>
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<td>% White 2000</td>
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<td>0.637</td>
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<td>% Renters 2000</td>
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<td>0.377</td>
<td>0.249</td>
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<tr>
<td>% Wealthy 2000</td>
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<td>0.159</td>
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<td>1.000</td>
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<td>Density</td>
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<td>0.003</td>
<td>0.005</td>
<td>0.000</td>
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<tr>
<td>Midwest</td>
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<tr>
<td>South</td>
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<tr>
<td>West</td>
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<td>0.226</td>
<td>0.418</td>
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<tr>
<td>Proportional Tract-Metro Elevation Diff.</td>
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<td>Distance to City Center (logged)</td>
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Table A7.2 Summary Statistics: Modern Partisanship and Conservatism, General Social Survey

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<th>Std. Dev.</th>
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<td>0.555</td>
<td>0.497</td>
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<td>% White Tract</td>
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