Creating the
Black Ghetto:
Black
Residential
Patterns before
and during the
Great Migration

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Were black ghettos a product of white reaction to the Great Migration in the 1920s and 1930s, or did the ghettoization process have earlier roots? This article takes advantage of recently available data on black and white residential patterns in several major northern cities in the period 1880–1940. Using geographic areas smaller than contemporary census tracts, we trace the growth of black populations in each city and trends in the level of isolation and segregation. In addition we analyze the determinants of location: which blacks lived in neighborhoods with higher black concentrations, and what does this tell us about the ghettoization process? We find that the development of ghettos in an embryonic form was well underway in 1880, that segregation became intense prior to the Great Migration, and that in this whole period blacks were segregated based on race rather than class or southern origin.

Keywords: ghettoization; residential segregation; Great Migration

While much attention is being given to the persistence and slow decline of black-white residential segregation in the United States since the 1960s, much less is known about its origins in the late nineteenth and early twentieth centuries. A standard account holds that segregation was modest in northern cities in the decades following the Civil War: "No matter what other disadvantages urban blacks suffered in the aftermath of the Civil War, they

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DOI: 10.1177/0002716215572993

were not residentially segregated from whites" (Massey and Denton 1993, 17). Then, following the initial wave of the Great Migration of blacks from the South to the North during the First World War, whites responded by erecting new barriers that sharply restricted where blacks could live. At the risk of oversimplification, let us refer to this as the "threatening presence" account (echoing Blalock 1956) because it attributes so much to the impact of rapid black population growth (for similar interpretations see Lemann 1991; Lieberson 1980).

We argue here that this account is incomplete for two reasons. First, it is based on analyses of data for city wards, which are too large a geographic unit to capture the segregation of small population groups. Second, it does not take into account information about the processes that underlie racial separation, especially the extent to which the black ghetto trapped all blacks regardless of their social class or other attributes. We use newly available data here to address both concerns. We map and measure segregation at the scale of enumeration districts (EDs), areas as small as a few city blocks. And we examine the association between the racial composition of the ED that blacks lived in and their own background characteristics in a multilevel model. For the first time we use fine-area data to study racial residential patterns for many cities over several decades in the early twentieth century. Our results support an alternative narrative about the origins of segregation, placing the era of high segregation and the entrapping ghetto well before the Great Migration. The massive movement of blacks from the South to new destinations in the North certainly affected the geographic scale and the racial homogeneity of the areas where blacks clustered. In addition, residential segregation became more complete from decade to decade. Yet segregation was undeniably high even in 1880 in most cities that we study, and the rise in segregation was apparent even by 1900 or 1910, prior to the Great Migration. The locational process for blacks never gave blacks of higher social class much chance of living in a more racially mixed neighborhood, and blacks born in the North lived in very similar neighborhoods to those of migrants from the South. The main characteristics, then, that we have come to associate with black ghettoization were already in place in the late nineteenth century, and we demonstrate that in this contribution. We agree with the standard account that black neighborhoods grew larger and more homogeneous in the next several decades.

The Problem of Geographic Scale

The importance of geographic scale is underlined by reviewing the ward-level evidence that supports the "threatening presence" account. Figure 1 presents

NOTE: This research was supported by research grants from National Science Foundation (SES-1355693) and National Institutes of Health (1R01HD075785-01A1) and by the staff of the research initiative on Spatial Structures in the Social Sciences at Brown University. The Population Studies and Training Center at Brown University (R24HD041020) provided general support. The authors have full responsibility for the findings and interpretations reported here

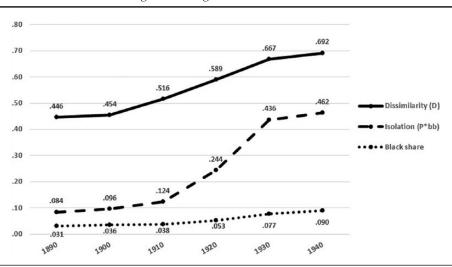


FIGURE 1
Segregation (D), Isolation (P°bb) and Black Population Share, Ward Level Data (Weighted Average for 10 northern Cities)

such data for the ten cities that we study here for 1890–1940, showing the black population share and two standard measures of segregation (the isolation index and the index of dissimilarity). These ward data show that black isolation was quite low through 1910, when the average black lived in a city that was only 3.8 percent black and lived in a ward that was overwhelmingly white (only 12.4 percent black). Black isolation rose appreciably by 1920 (when the average black person's ward was 24.4 percent black), but greatly accelerated after that time, reaching 43.6 percent in 1930 and 46.2 percent in 1940. This timing is crucial—blacks' neighborhoods did not approach being majority black until the 1930s.

The index of dissimilarity followed a similar trajectory. It was moderate in 1890 and 1900, rising slightly by 1910. By 1930 it reached the level of .60 that most analysts consider "high." On the basis of similar data for all large cities, Cutler, Glaeser, and Vigdor (1999, 456) conclude: "Where only one city had a ghetto by our definition in 1890 (Norfolk, Va.), 55 cities had a ghetto by 1940." Segregation came late to northern cities.

One historian with access to data at a finer spatial scale, Philpott (1978, 120–21), complained that ward data were misleading in the case of Chicago (for comparison see the case studies of Chicago and Harlem by Spear [1967] and Osofsky [1963]). The 1900 ward map for Chicago, he said, "shows blacks scattered over all of the Southwest Side, most of the South Side, and much of the West Side as well." In fact, he argued, "the residential confinement of the blacks was nearly complete at the turn of the century." More recently Logan, Zhang, and Chunyu (2015) have analyzed newly available data at the ED level for Chicago and New York, showing that segregation was already high in 1880 in these two cities and was rising steadily prior to the Great Migration. In this study we expand that

analysis to ten large northern cities. We analyze census data at the level of EDs, which averaged fewer than 1,500 people, somewhat smaller than contemporary census tracts (which have about 4,000 residents). In contrast, wards are much larger. For example, in 1880 Chicago—with a population of more than 500,000—had only 18 wards, an average of nearly 30,000 people per ward.

The Segregating Process

Equally important in our analysis is the question of how black residents were consigned to black neighborhoods. Was it based on racial exclusion, or was the effect of race tempered by differences in social class and geographic origin? It would be considered "normal" for immigrants in this period to live in segregated ethnic neighborhoods, in large part because of the disadvantages associated with their relatively low initial class position and newcomer (i.e., "un-acculturated") status. But suppose the key source of segregation in their case is not being Italian or Russian, but rather another attribute that happens to be associated with those ethnicities. Suppose, as assumed by the spatial assimilation perspective (Massey 1985) that their residential enclaves are left behind as individual families achieve better jobs, the second generation becomes more American, and they learn how to better navigate the city. This would contrast with the ghetto, which is thought of as an absorbing state (Logan, Alba, and Zhang 2002). Contemporary studies show that blacks are less likely than comparable whites to escape poor neighborhoods, even across generations (South and Crowder 1997; Sharkey 2013).

When did race become so consequential for where people lived? Research on the 1930s and 1940s (see, for example Frazier [1937] on Harlem and Duncan and Duncan [1957, 237–98] on Chicago) makes clear that there was class variation within the ghetto at that time, but that both middle-class and working-class blacks were unable to escape its grasp. Massey and Denton (1993, 30) argue that entrapment was a new development, and that previously "well-to-do African Americans" had been more able to find housing commensurate with their social status. This conclusion is contested by early studies in Chicago. Comstock (1912, 255) observed that "[t]he strong prejudice among the white people against having colored people living on white residence streets ... confines the opportunities for residence open to colored people of all positions in life to relatively small and well-defined areas" (see also Breckinridge 1913).

Research Design

When did northern blacks become highly segregated, and what was the process behind their residential separation? We address these questions with information on ten cities for the period 1880–1940: New York City, Brooklyn, Chicago, Boston, Philadelphia, Cincinnati, Cleveland, St. Louis, Pittsburgh, and Detroit.² These cities included nearly 18 million residents in 1940.

We draw on data at the individual level and at the level of EDs and cities. In models where the unit of analysis is the individual we rely on microdata made available by the Minnesota Population Center (MPC), including a 100 percent population sample for 1880, a 5 percent sample for 1900, and 1 percent samples for 1910–1940. In these models, we draw a subsample comprising either the household head or spouse (selected randomly) and all unrelated adults (age 15 and above, including only those with a coded occupation) in the household.

ED-level counts have been aggregated from individual-level records from three sources. One source is Ancestry.com, which has transcribed portions of all the individual records from pre-1950 censuses. Allison Shertzer (University of Pittsburgh) obtained permission to assemble these data from Ancestry's webpage for the four census years between 1900 and 1930 for the northern cities. We have cleaned the individual records and aggregated data on racial composition to the ED level. In addition we have created historically accurate GIS maps of the EDs in each decade 1900–1930.³

The source for 1880 is the Urban Transition HGIS (Logan et al. 2011), which is based on the 100 percent population microdata distributed by MPC. ED-level data were aggregated and joined to historically accurate GIS maps. For 1940 we have aggregated 100 percent population microdata to the ED level based on an early release from MPC. ED maps are not yet available, and we rely here on a mapping of 1940 census tracts completed by the National Historical GIS Project at MPC.

The ED data are used to calculate indices of segregation. Two segregation measures are used for comparison across cities and over time. These are the index of dissimilarity (D_{bw}) and index of isolation (P^*_{bb}) , see Lieberson and Carter 1982). As used here, dissimilarity measures the degree to which blacks and whites were unevenly distributed across EDs in a city. The more blacks are clustered in some EDs and whites in others, the higher the value of D, with a maximum of 1. There is a consensus among demographers that a value of .60 or above is very high. The average value of D in metropolitan regions in 2010 was close to this level (.591). If there were no segregation, D would reach its minimum value of 0. The isolation index measures the exposure of a group to itself. For example, a P*_{bb} value of .50 indicates that the average black person lived in an ED that was 50 percent black. Even if segregation (D) remains the same over time, growth in a minority population will tend to leave it more isolated; that is, leave group members in neighborhoods where they are a larger share of the population. As we will see, D began at fairly high levels in 1880 and continued to rise at the same time that the black share of the population was also rising. Consequently black isolation reached extremely high levels by the end of our study period.

We also combine ED data with sample data for individual black residents to estimate locational attainment models. In 1880 we have a 100 percent sample; in 1900 it is 5 percent; in other years it is a 1 percent sample (Ruggles et al. 2010). In these models we analyze how people's residential outcome (the percent black in their neighborhood) is associated with their individual-level characteristics. An example with contemporary data is provided in Logan, Alba, and Zhang (2002), who predict living in ethnic neighborhoods for Hispanic and Asian groups in New

York and Los Angeles. The predictors used here are gender, age, marital status (single, married, and divorced/widowed), household composition (living alone or with relatives vs. living with only nonrelatives), southern birth,⁴ and occupational standing. Occupation is the only available social class measure prior to 1940. It is typically included in analyses as an interval scale socioeconomic index (SEI) based on rankings of occupations' income, education, and prestige in 1950. Sobek (1996) has demonstrated that it provides a reliable ranking of occupations as far back as the late nineteenth century. We operationalize it as the highest SEI of any family member in the household.

Finally, we have constructed additional city-level variables for each year to use as predictors of segregation and isolation. The city percent black of the total population was calculated from our 100 percent population samples in 1880 and 1940 and from the ED counts in 1900–1930. The measure of relative class position of black residents is the ratio of the mean value of SEI for blacks to the mean SEI for whites. The measure of southern origin is the percentage of black adults (age 18 and above) who were born in the South, as defined above. The latter two indicators are based on calculations from the various microdata samples.

Results

City trends in segregation and isolation, 1880–1940

Blacks were present in small numbers in northern cities throughout the nine-teenth century. Again citing Massey and Denton (1993, 17): "There was a time, before 1900, when ... in the north, a small native black population was scattered widely throughout white neighborhoods." Flamming's (2006) study of black Los Angeles describes the trend from a historian's perspective: The "quieter" migration of the better educated and more ambitious African Americans during 1890–1915 "filtered into small, loosely knit communities that were, in large part, middle class ... There was some racial segregation, but there were no black ghettos to speak of" (2006, 45). But following World War I, provoked by the first wave of the Great Migration, whites panicked: "They erected residential boundaries, through violence and law ... thereby penning the migrants into black-only districts that proved to be embryonic ghettos" (Flamming 2006, 46).

These authors agree on several points: the black population was initially small but grew appreciably after World War I; the black population in the North was initially mainly of northern origin but later included much larger shares of southern-born migrants; and ghettos were only "embryonic" prior to World War I. After World War I, segregation and racial isolation spiked in response to the Great Migration. Our analyses offer some new insights into and in some ways contradict these conclusions.

Because black population growth plays such an important role in this account, we begin by outlining the trend in the black population share of the population in our ten cities (Figure 2).⁵ In the years through 1910 these values are tightly bunched together in a range between 1 percent and 5 percent (St. Louis is an

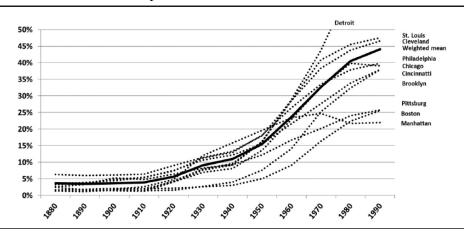


FIGURE 2 Black Proportion in 10 Northern Cities, 1880–1990

outlier, already 6.4 percent black in 1910; see Table A1 in the online appendix). The average (weighting by the size of the black population in the city) was 3.7 percent in 1880, rising to just 3.9 percent in 1910. At this point the cities' paths began to diverge, with little change in Brooklyn but an increase of around 2 percent in other cities, and reaching an average of 5.6 percent in 1920. It is surprising that the sharp rise in segregation over the 1880 to 1940 period was accompanied by such a modest increase in black share, particularly compared with the substantial growth in the black population in the post–World War II era. The greater impacts occurred from 1950 (when the black share averaged 15.5 percent) to 1960 (23.7 percent), 1970 (32.7 percent), and 1980 (40.5 percent). This timeline raises a question: if there had been little segregation prior to 1920, and if the black population had risen only from 5.6 percent in 1920 to 11.0 percent in 1940, what drove this sudden ghettoization?

Possibly whites responded not to the actual change in the black population but to perceptions of racial change, fueled by rumor and media coverage. We are unable to test this hypothesis. Another plausible answer is that it corresponded with the influx of southern migrants into cities that had better accommodated the local black population. Although Tolnay (2003, 218) points to evidence that southern blacks were positively selected and not particularly disadvantaged in some ways, his review of the literature acknowledges this point of view: "In virtually all destinations, the southern migrants were greeted with suspicion and hostility by black and white northerners alike. With generally minuscule black populations before the Great Migration, northern and western cities had achieved a relatively stable state of race relations, albeit one characterized by distinct racial inequality. That situation began to change, however, as waves of migrants from the South produced extraordinary growth in local black populations." An early study of sixteen cities by Woofter (1928, 97) concluded that southern migrants' neighborhoods "did not measure up" to those of blacks raised in the North. It should be pointed out, however, that throughout this period

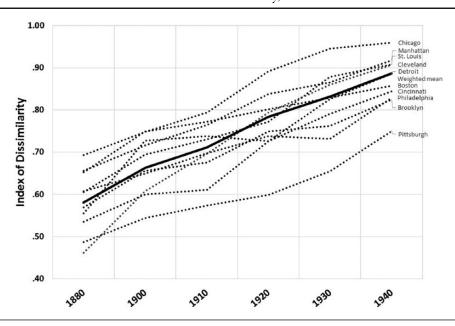


FIGURE 3
Trend in Index of Dissimilarity, 1880–1940

northern-born blacks remained about half of the black population. In the cities studied here, the southern-born share of the black population as early as 1880 ranged from 29 percent in Brooklyn to 60 percent in Cincinnati. By 1940 the range was from 30 percent in Boston to 64 percent in Detroit. If the influx from the South is what made the difference, it must have been mostly because of sheer population increase, not dependent on the source of the increase.

We can also draw inferences from analysis of the decade-by-decade trends in two measures of residential patterns: segregation (measured by D) and isolation (measured by P°). Figure 3 reports trends in D. Note that the average black person lived in a city with an ED-based value of D close to 60 as early as 1880. In 1910 it was above 70, and it approached 90 in 1940. By this measure segregation of blacks was always high, even when less than 5 percent of city residents were black. This is a very different conclusion than has been reached in prior studies using ward data. There was variation among cities, to be sure. Segregation was consistently lower in Pittsburgh than in the other cities, and most extreme in Chicago. However, of these two cities Pittsburgh always had a larger share of black residents.

Figure 4 reports trends in racial isolation. Not surprisingly isolation was initially quite low because it was limited by the overall black population share. The average black person across these cities lived in an ED that was 14.5 percent black in 1880 and still only 22.1 percent black by 1900. After 1900 it rose rapidly, but it was always in the range of 7 to 8 times the black share. In three of these ten cities the average black lived in a majority black ED by 1920; six cities by 1930; and in all but Brooklyn by 1940.

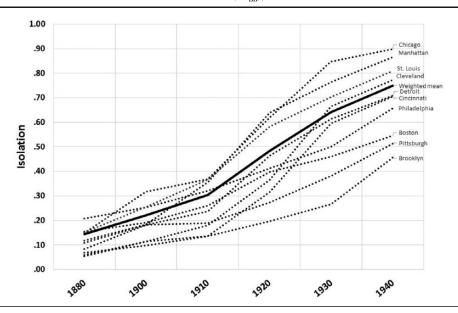


FIGURE 4
Trend in Isolation (P^*_{bb}) , 1880–1940

Another view of these trends is provided in Figure 5, where we have pooled all of the city data for D and P° in a single scatterplot. The hollow circles represent cities in 1880 and 1900, the gray circles represent 1910 and 1920, and the black circles represent 1930 and 1940. One can see the progression over time toward higher levels of both segregation and isolation.

There was also a clear evolution in the spatial pattern of predominantly black areas, as displayed in the online supplemental Figures 1–10,6 which map the black settlement pattern in all of these cities. Maps are shown for EDs in 1880–1930 and for census tracts in 1940. These maps have a common feature: the main areas of black settlement expand over time. For example, in St. Louis in 1880 when D was below .50, P° was only .151, and the black population was less than 6 percent; segregation was visible in the contrast between EDs with virtually no black residents and those at 10 percent or 20 percent black. In 1900 several EDs that were more than 70 percent black appear, and the metaphor of "embryonic ghetto" seems useful to describe this case. In each subsequent decade this predominantly black zone expands and slowly spreads, to the point that by 1940 a majority of census tracts are nearly all white, while the zone of black settlement has clearly solidified.

Predicting variation across cities

Though we see similar trends across all ten cities, there is also considerable variation among them. We turn now to prediction models, seeking further clues to the sources of growing separation. In these models the dependent variables

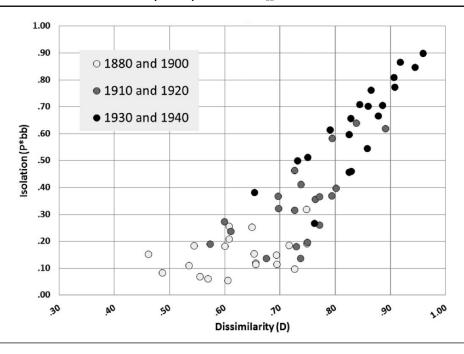


FIGURE 5 Index of Dissimilarity (D) by Isolation (P°_{bb}) for Ten Cities, 1880–1940

are the city's level of dissimilarity and isolation in a given year (so there are 60 cases, six time points for each of the 10 cities). Time itself is a key predictor, given the evident time trend in the data. Other predictors are characteristics of the city in that year that have been pointed to as reasons for segregation to be higher or lower. One of these is the black share of the population, prominent in theories of the "threat" of a minority population (it is only a control variable in predicting isolation, since percent black in the city is an integral part of the definition of isolation). Another characteristic is the relative class position of whites and blacks. From a market perspective and also from the theory of spatial assimilation, one would expect greater black separation in cities where blacks' average occupational standing (measured here as the mean SEI of employed blacks) is especially low in comparison to whites. Finally we include a measure of southern origin: the percentage of adult blacks (age 18 and above) who were born in southern states. To the extent that socioeconomic and cultural boundaries restricted the incorporation of southern blacks in these cities, this predictor would be positively associated with residential separation.

Results are reported in Table 1. The time trend is evident in the effects of dummy variables for year, which are responsible for most of the explained variance in the models. Controlling for the three city characteristics (for example, taking into account variation in the black population share), D rose by thirty points and P* by thirty-eight points between 1880 and 1940. Dissimilarity was not

| TABLE 1 |
|---|
| OLS Models Predicting Segregation (D _{bw}) and Isolation (P* _{bb}), Pooled Cross-Sections for |
| 1880–1940 |
| |

| | Diss | imilarity | Isolation b SE | |
|-----------------------------------|----------------|-----------|-------------------|-----------|
| | \overline{b} | SE | | |
| Percent black | .10 | (.43) | 2.84 | (.67) *** |
| Black to white SEI ratio | .56 | (.18) ** | .57 | (.28) * |
| Percent adult black born in South | .10 | (.11) | .27 | (.18) |
| Year (ref=1880) | | | | |
| 1900 | .00 | (.04) | 03 | (.06) |
| 1910 | .04 | (.04) | .02 | (.06) |
| 1920 | .14 | (.04) ** | .17 | (.06) ** |
| 1930 | .21 | (.04) *** | .26 | (.06) *** |
| 1940 | .30 | (.04) *** | .38 | (.06) *** |
| Constant | .26 | (.12) * | 35 | (.18) |
| R ² , Adjusted | .68 | | .81 | |
| N | 60 | | 60 | |

p < .05. p < .01. p < .001.

affected by variation in black population share. Neither indicator of racial separation was affected by variation in the share of southerners in the city's black population. And although the ratio of black to white average SEI had a highly significant effect on both measures, it was in the opposite direction of the prediction from market and assimilation theory. Where blacks in a city were closer to whites in SEI, they were more separated.

Bayer, Fang, and McMillan (2011) noticed this latter result with current census data, and they argue that it represents a "re-sorting" of blacks, as newly middle-class black residents upgrade into homogeneous new black neighborhoods. This was probably not the mechanism in the early period when the black middle class was much smaller and less residentially mobile than it is now. An alternative explanation is that perhaps the causal order of the relationship is different—that blacks have greater occupational opportunities in cities where they are more segregated. A longstanding understanding of the black ghetto is that it created a market for services to the black community, ranging from professional occupations such as ministers, teachers, and medical practitioners to people engaged in personal services. Semyonov (1988) identified this phenomenon in Israel, where Arabs working in (mono-ethnic) Arab communities are occupationally advantaged in comparison with Arabs working in labor markets where they must compete with Jews. Segregation can increase opportunities if the minority community "reaches a critical mass and is large enough to develop independent, mono-ethnic, labor markets" (1988, p. 257). Lieberson (1980, 297–98) made the same point with respect to historical black neighborhoods: "If the black population base is large enough, there will be support for black doctors, black clergy, and so on, even if they remain totally unacceptable to others."

How individual background translates into locational outcomes

Aside from city variations, we can learn more about the processes underlying segregation by investigating which black residents lived in more or less segregated neighborhoods (that is, neighborhoods with a higher share of black neighbors). We tackle this question in a series of multilevel regression models where we have individual-level data on where black people lived. Models of this sort are referred to as locational attainment models (Alba and Logan 1992). Similar models have been estimated with historical data for American cities by Tolnay, Crowder, and Adelman (2002) and Logan and Zhang (2012). We include several demographic characteristics as control variables: gender, age, marital status, and household composition (living with nonrelatives vs. living with family members). Southern birth is included to probe further into the possible disadvantages of migrants. Other predictors identify aspects of people's class position, on the assumption that those with more human capital would be more likely to escape predominantly black zones. These include literacy (a dummy variable in the census), the SEI of the highest status person in the respondent's family (or the person's own SEI in the case of unrelated adults), and whether the housing unit is rented or owned by the head of household (unrelated persons are always coded as renters). One final variable, whether the person is a live-in servant in another family's household, is especially relevant in the early decades, when a large share of employed blacks lived with their white employers.

This is a multilevel random effects model with two variables at the city level: the index of dissimilarity in a given year and the city's percent of black residents. The mathematical form of the model is shown in the following equation:

$$y_{ij} = \alpha + \beta_1 X_{ij} + \beta_2 X_j + u_j + e_{ij}$$

where X_{ij} are individual-level covariates; X_j are city-level covariates; u_j is the city-specific error term; e_{ij} is the individual-specific error. Unexplained variation at the city level in the racial composition of people's neighborhoods depends only on average differences between cities themselves. The coefficients of city-level variables contribute to city-specific slopes. The effects of individual covariates are constant across cities.

Table 2 shows that the city-level predictors are the dominant factors in the nature of black people's neighborhoods.⁸ Most of the variance explained by the models is between cities, and a smaller share is within cities. If one lives in a city with a larger black population that is highly segregated, one will live in a neighborhood with a larger share of black neighbors.

At the individual level, southern birth has a significant negative effect in 1880, and it is not a significant factor in 1900, 1910, or 1920. But it emerges in both 1930 and 1940 as a significant predictor. In these decades, blacks born in the

Multilevel Regression Predicting Percent Black in the ED Where a Person Lives, 1880–1940 (Black persons age 15 and above) TABLE 2

| | ī | 1880 | 1 | 1900 | 1 | 1910 | 11 | 1920 | 16 | 1930 | | 1940 |
|------------------------------|--------|-----------|--------|------------|--------|-------------|---------|------------|---------|------------|---------|------------|
| | q | SE | p q | SE | q | SE | q | SE | q | SE | q | SE |
| Female | 33 | (.13) * | -2.41 | *** (95.) | -3.30 | (1.25) | -1.27 | (1.11) | 88 | (.87) | -1.67 | * (27.) |
| Age | .01 | (.01) | 01 | (.03) | .02 | (90.) | 13 | * (20.) | 00. | (.04) | 02 | (.03) |
| Southern born | 34 | (.12) * | .02 | (.56) | 2.43 | (1.25) | 74. | (1.15) | 5.05 | .95) | 3.36 | (.83) *** |
| Marital status (REF=single) | | | | | | | | | | | | |
| Married | 36 | (.21) | 1.99 | * (08.) | 6.24 | (1.79) *** | 2.74 | (1.63) | 23 | (1.28) | 4.33 | (1.01) *** |
| Divorced/widowed | 96. | (.23) *** | 4.43 | *** (86.) | 5.93 | (2.03) ** | 5.89 | (2.02) ** | 84 | (1.51) | 3.73 | (1.33) ** |
| Lives with nonrelatives only | -1.00 | (.20) | 1.15 | (.74) | 2.64 | (1.63) | 2.70 | (1.48) | 1.28 | (1.16) | .62 | (.91) |
| Literate | | | 1.18 | (.83) | 5.06 | (2.26) * | 2.59 | (2.31) | 4.67 | (2.32) * | 6.22 | (2.02) ** |
| Highest family member's SEI | 03 | (.00) | .12 | (.02) | 03 | (.04) | .05 | (.04) | .13 | (.03) | .04 | (.02) |
| Owner | | | -12.49 | *** (76.) | -16.82 | (2.33) *** | -19.95 | (1.96) *** | -8.39 | (1.33) *** | -8.94 | (1.41) *** |
| Live-in servant | -9.32 | (.18) | | | | | | | | | | |
| City-level D _{bw} | .85 | (.01) | .91 | (.07) | 1.26 | (.12) *** | 1.94 | *** (80.) | 1.88 | (.05) | 2.07 | (.07) |
| City-level % black | 4.42 | (90.) | 4.09 | (.26) *** | 3.40 | (.40) *** | 3.07 | (.28) | 2.25 | (.16) | 1.45 | (.10) *** |
| Constant | -46.63 | .95) | -55.31 | (5.89) *** | -82.46 | (10.07) *** | -121.35 | (7.62) *** | -120.58 | (5.86) *** | -135.35 | (6.37) *** |
| R^2 : overall | .18 | | 80. | | .12 | | .21 | | 24 | | .20 | |
| R^2 : within | 60. | | .05 | | .05 | | .04 | | .02 | | .01 | |
| R^2 : between | .82 | | .57 | | .85 | | 89 | | .91 | | .91 | |
| N | 45,863 | | 5,801 | | 1,678 | | 3,062 | | 4,923 | | 6,139 | |

p < .05. *p < .01. **p < .001.

South lived in neighborhoods that were 3 to 5 percent higher in black share. We cannot explain why this effect varies over time. It does not seem to be associated with a spike in the southern share. There are only two cities (Cleveland and Detroit) where the southern share was quite modest in early decades (20–40 percent in 1880–1910) and much higher subsequently (60–75 percent in 1920–1940, though actually declining between 1930 and 1940). Possibly there was a shift in the composition of black migrants that is not associated with other variables in the model.

Almost by definition, live-in domestic servants in 1880 lived on average in neighborhoods with fewer blacks. Black owners (around 10 percent of the total) did also. However some other human capital measures worked in the opposite direction: literacy (in 1910, 1930, and 1940) and occupational SEI (in 1900 and 1930) were positively related to living in areas with larger black shares. We advise caution in interpreting the SEI effect because it appears in only two years. However it is parallel to the effect of the black/white SEI ratio on both dissimilarity and isolation in Table 1. Possibly blacks with certain kinds of higher status occupations who served black clients were especially likely to live in black neighborhoods.

Discussion and Conclusion

The chief conclusion from this study is that black separation from whites in northern cities was much greater and appeared much earlier than has previously been documented. If the Blalock hypothesis that segregation was imposed on blacks because they posed a threat to whites stands, then they must have already been threatening when they were only 2 percent or 3 percent of the population. The index of dissimilarity was in the high range (above 60) in several cities studied here in 1880, and the average value was above 60 by 1900. Black isolation was much higher at the ED level than at the ward level throughout this period. Whether one interprets the actual values as "high" is a matter of interpretation. Our view is that if the average city was only 3 percent black in 1880 but the average black person lived in a neighborhood that was 15 percent black, then their neighborhood isolation is greatly out of proportion and should be considered high. Isolation is a function of both segregation (appropriately measured by D) and the size of the black population. As both of these factors rose over time, isolation skyrocketed. For those who consider the central fact of ghettoization to be the creation of zones of the city that are predominantly black, it is unlikely that ghettos could have formed to such a degree except for the Great Migration. But if segregation had not also been high and rising, black population growth could not have created the ghetto.

We also argue that the processes underlying segregation are key to the concept of ghettoization. This is similar to the view of Marcuse (1997), who notes that there are several forms of racial separation. What distinguishes the ghetto is not its size or homogeneity but rather the process of race-based exclusion. In the

multivariate models we present above we examined the correlates of segregation to find clues about this process. The analysis is limited by the small number of cities, but it is strengthened by the fact that this number includes many of the key cities in the northern ghetto belt and that data follow these cities over several decades. We find little evidence that racial separation was due to human capital deficiencies of black residents in terms of either low class standing or southern migrant origin. In the city-level analysis the share of southern blacks proved to be unrelated to dissimilarity and isolation, and cities where blacks' occupational level was closer to that of whites had higher separation. In the individual-level analysis the results are mixed. There is no evidence of a southern migrant disadvantage through 1920, but in both 1930 and 1940 southerners lived in neighborhoods with higher black shares. The relatively few blacks who owned their own homes lived in neighborhoods with smaller black shares, but literacy and higher SEI were associated with living in neighborhoods with larger shares of black neighbors.

These findings for individual locational outcomes merit further investigation. Why did results change over time, and why did literacy and occupational standing have opposite effects to that of home ownership? Yet these within-city effects should not be overstated. In 1930 and 1940 the explained variance within cities is no greater than .01 and .02. Almost all of the variation in outcomes is between cities, dependent on the level of segregation and the size of the black population. For this reason we draw the more general conclusion that individual variation among blacks had minimal impact on where they lived. Blacks lived in black neighborhoods because of their race, and this was already the case in 1880.

This conclusion is relevant because it dates northern residential segregation to a time soon after the Civil War. This timing is consistent with what has already been well known about the strict limits on black peoples' opportunities in the labor market, education, and other spheres at that time, and in fact it would be surprising if a society that was so divided by race in these other ways had not also been divided at the neighborhood level. Scholars have pointed to a number of conditions specific to the period after World War I as the causes of segregation: the wave of bombings in Chicago in the 1920s, the creation of racial covenants in housing, redlining by federal officials, and exclusion of blacks from most early housing subdivisions outside the urban core. Our results suggest that the roots of the ghetto can be found much earlier. These mechanisms did not originate the ghetto, rather they supplemented the strong boundaries that were already in place by 1880 or 1900. They facilitated and accentuated segregation, making possible the extreme form of the ghetto that existed in 1940 and beyond.

These results also have some implications for contemporary patterns. First, they may help to explain why entrenched black neighborhoods remain so persistent in the current time, even when many of the mechanisms that promoted segregation have been outlawed. The ghetto does not depend on restrictive covenants or redlining or openly discriminatory real estate practices. It depends more fundamentally on the existence of strong social boundaries based on race, and these were in place in the late nineteenth century and, we believe, are in place today. Second, our observations about the spatial scale at which segregation

should be studied are especially relevant to smaller racial/ethnic groups or groups in cities with small minority shares today. When a particular group—Chinese, Central American, Afro-Caribbean—is present in small numbers, it may be highly segregated at a fine geographic scale without being detectable in units as large as census tracts. Third, our emphasis on segregation not only as a level of separation but also as a process of residential mobility has great relevance for distinguishing among group experiences at the current time. Prior research has noted especially that some Asian national origin groups are fairly highly segregated, but that living in a more ethnic neighborhood may be characteristic of more advantaged group members, and therefore more likely a positive choice (Logan, Alba, and Zhang 2002). In contrast, the residential separation of Hispanics is strongly tied to their relatively low socioeconomic achievement and English-language skills (see Lichter, Parisi, and Taquino, this volume). As we interpret contemporary residential patterns, we have to be aware that the ghetto, the ethnic community, and the immigrant enclave have very different sources and consequences for minority residents.

Notes

- 1. The figure is reproduced from Logan, Zhang and Chunyu (2015). We draw on the ward data gathered and disseminated by Cutler, Glaeser, and Vigdor (1999). Their analyses use a variation of the isolation index that seeks to standardize for the effect of the black population share in a city. We present the more familiar index, which can be interpreted as the proportion of black residents in the neighborhood where the average black person lived.
- 2. Brooklyn was a separate city in 1880, and we treat Kings County as a separate city for the whole period. The Shertzer project collected data only for the Borough of Manhattan (not including the Bronx, which was also part of New York City in 1880, or Queens and Staten Island, which were incorporated into the city in 1898). Therefore our results for New York City cover only Manhattan.
 - 3. See online supplement, Figures 1–10; http://ann.sagepub.com/supplemental.
- 4. "Southern" in this study is defined to include sixteen southern states and the District of Columbia: South Atlantic (DC, Florida, Georgia, Maryland, North Carolina, South Carolina, Virginia, West Virginia, and Delaware), East South Central (Alabama, Kentucky, Mississippi, and Tennessee), and West South Central (Arkansas, Louisiana, Oklahoma, and Texas).
- 5. Because our concern is with residential segregation and because children do not have a large role in location decisions, we include only the population age 18 and above.
 - 6. See http://ann.sagepub.com/supplemental.
- 7. Using the occupational SEI probably understates the class inequality between blacks and whites, because blacks very likely earned less than whites in the same occupation. However this "compression" of measured inequality should be similar across these ten northern industrial cities.
- 8. Our findings diverge in some ways from the published research that most closely parallels it, a study of 103 northern and western cities in 1920, where the dependent variable was the percent native white in the ward where the person lived (Tolnay, Crowder, and Adelman 2002). These authors also found that city-level effects were dominant. After controlling for city characteristics, there was no difference in locational outcome for northern- vs. southern-born blacks. Literacy, SEI, and homeownership were all associated with living in neighborhoods with a higher share of native white residents. However these latter effects were based on pooling data for both whites and blacks.

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