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Ghettos and Jobs in History

Neighborhood Effects on African American Occupational Status and Mobility in World War I–Era Cincinnati

This article examines how residence in racially segregated neighborhoods affected the job prospects of African American men in the late 1910s. The analysis focuses on one northern city—Cincinnati, Ohio. The evidence comes from a new longitudinal dataset containing information on individuals linked from the 1920 census to World War I selective service registration records. The results indicate that black male residents of Cincinnati’s west end ghetto held occupations similar to those of black men in other Cincinnati neighborhoods and experienced similar rates of upward occupational mobility. Surprisingly, black men in the west end experienced lower rates of downward occupational mobility than did black men in other parts of the city.

How does racial segregation in residence affect the job prospects of black workers? This is one of the central questions in African American economic history. Over the past three decades, scholars have been embroiled in debates over how ghettos form (for instance, see Massey et al. 1994; Wilson 1987) and how they shape the economic outcomes of their residents (Kasarda 1993; Rosenbaum and Popkin 1991). Most of this literature focuses on the 1970s and 1980s. But there is good reason to believe that the relationship between residential segregation and labor market outcomes changed over the course of the twentieth century. The forces that led to high poverty rates in black urban neighborhoods in the 1970s and 1980s—the out-migration of better-off blacks, the deindustrialization of urban centers, the shift to finance and information processing in these areas, and the resulting “spatial mismatch”

between low-skill black workers and high-skill jobs—are largely post-1960 or at least post-1950 phenomena (Wilson 1987: 20–62). We might therefore expect that ghettos of earlier decades would have been less severely detrimental to the labor market prospects of their residents.

This article contributes to our understanding of these historical dynamics by investigating the relationship between location of residence and labor market outcomes for black men in the late 1910s. I employ a new dataset that links African American men in Cincinnati, Ohio, from their 1920 U.S. federal census record to their World War I selective service registration record. These data provide unique evidence for studying these relationships in this important period. First, because the data allow us to observe workers at two points in time, we can directly examine patterns of job mobility, rather than inferring patterns from repeated cross sections and synthetic cohorts. Second, because this dataset is a dense sample from one city, we can compare the labor market outcomes of African Americans living in different neighborhoods in that city. In this case, we can compare the occupational status and occupational mobility of African Americans living in the developing west end ghetto to the status and mobility of African Americans elsewhere in Cincinnati.

Although the results presented here reflect patterns in just one city, they nonetheless provide some provocative insight into the impact of residential segregation on the job prospects of African Americans in the urban North in the late 1910s. While black residents of Cincinnati's west end were somewhat more likely to be unskilled laborers, it appears that they had rates of upward occupational mobility similar to those of African Americans in other parts of the city. More surprising, west end residents suffered less downward occupational mobility over time than did African American workers in other Cincinnati neighborhoods.

The Data and the Setting

The late 1910s were a tremendously important and turbulent time in U.S. labor history. Between 1914 and 1919, the number of manufacturing workers in the United States rose from 6.5 million to 8.4 million as new plants were rapidly built (Nelson 1975: 141–42). At the same time, mobilization for World War I and the near total cessation of immigration from Europe restricted the growth of the labor supply. The result was intense competition for workers and a search for new sources of industrial labor. Manufacturing firms began

to hire African Americans in greater numbers than before. As part of this process, northern firms began to recruit black workers out of the South, setting in motion the first wave of the Great Migration of African Americans to the North.

How did these events affect the occupational distribution and occupational mobility of African Americans in northern cities? The 1920 census is the primary source of evidence on this question, but it provides only cross-sectional information and does not track individuals over time. No national, longitudinal surveys of individual worker outcomes were carried out in this era. However, the availability of census and other manuscripts allows us to construct longitudinal datasets for this period by linking individual workers across different sources. By linking workers from the 1920 census manuscripts to the selective service registration carried out in 1917 and 1918, we can examine occupational mobility patterns in the midst of this process of industrial expansion and black migration.

The U.S. War Department carried out three waves of registration for the draft during World War I. The first took place on June 5, 1917, and registered all males aged 21 to 30. The second, small wave took place on June 5, 1918, and covered all males who had turned 21 in the previous year. The third and final wave took place just three months later, on September 12, 1918. This third registration officially covered all men between the ages of 18 and 45 who had not previously registered for the draft. Effectively, this meant that men aged 18 to 20, those who had turned 21 between June 1918 and September 1918, and those aged 32 to 45 had to register.

The registration forms changed from wave to wave. They all included substantial information allowing the identification of the individual (name, address, race, date of birth, name and address of next of kin or dependent). The 1917 and June 1918 registrations included detailed information about birthplace. The 1917 and September 1918 registrations included detailed information about occupation (only the June 1918 registration lacked occupation information). This variation in timing and content creates some complications in using these records. In their favor, however, is the fact that registration rates were apparently quite high. Further, the registrant himself reported the information (and signed the form), which should increase the accuracy of the reporting (Matchette et al. 1995; Deputy and Barben 1986).

The records are organized geographically by draft board. Each county

had a draft board, and each large city had a board for roughly every 30,000 residents. As there is no national index of registrants, this organization favors a community study framework rather than the creation of a nationally representative sample. Cincinnati, Ohio, was chosen as the location for this study. The city had a large black population before the late 1910s and also gained a substantial number of migrants during these years: there were 19,639 African Americans in Cincinnati in 1910 (out of a total population of 363,591) and 30,079 in 1920 (out of a total population of 401,247) (U.S. Bureau of the Census 1923, 2:51).

As in any community-based study, we need to be aware of how this particular population compared to the nation as a whole. According to 1920 census figures, Cincinnati's black population was somewhat more likely to be illiterate than was the total northern black population: 11 percent of black Cincinnatians were illiterate, as opposed to 7 percent of all northern blacks (*ibid.*, 3:34). There is also evidence that occupational segregation was particularly pronounced in Cincinnati relative to other northern cities, at least in 1940 (Sundstrom 1994: 384). While most of the analysis here concerns variation in labor market outcomes among Cincinnati's black population, we should keep in mind that there may have been a lower ceiling on black opportunities in general in this community than in some other places.

The first step in the construction of the linked dataset was the drawing of a 1-in-10 random sample of African Americans in Cincinnati from the manuscripts of the 1920 census. The records from the Integrated Public Use Microdata Series (IPUMS) 1920 sample for Cincinnati were added to this new random sample (Ruggles and Sobek 1997). These records were then linked to the selective service registration records for Cincinnati. The resulting dataset contains men born between 1872 and 1900 who were Cincinnati residents both at the time of their draft registration and in January 1920. The characteristics of the "linkable" set—men of draft registration age—and of the linked set of African Americans are reported in table 1.¹ The primary discrepancy between the two sets concerns marital status: linkage rates for single men are noticeably lower than for married men. This reflects the fact that single black men, many of whom were migrants, typically lived alone or with other unrelated individuals. The "next of kin" reported on their draft registration record was unlikely to be living with them either at the time of their registration or in 1920, reducing our ability to identify these individuals based on the names of other family members. The overall linkage rate

Table 1 Characteristics of African American men of draft registration age in Cincinnati and of the linked subsample

	Black men of registration age	Linked black subsample
Marital status		
Married	.63	.73
Single	.33	.24
Widowed	.03	.03
Divorced	.002	0
Median age	32	33
Share illiterate	.09	.06
Birthplace		
Ohio	.14	.15
Other North	.04	.04
Kentucky	.31	.32
Other South	.50	.46
Other U.S.	.02	.02
Non-U.S.	.01	.01
Occupation		
White collar	.08	.11
Skilled blue collar	.08	.08
Semiskilled blue collar	.09	.10
Unskilled blue collar	.52	.48
Service	.23	.23
<i>N</i>	863	349
Linkage rate		.40

Note: Characteristics for linked subsample reflect their 1920 values. Missing, illegible, and unclassifiable responses were omitted from calculations.

is no doubt also affected by the ongoing in-migration of African Americans between their date of draft registration and 1920.

The West End and Labor Market Outcomes for Black Men in the Late 1910s

Our understanding of the relationship between residential segregation and black labor market outcomes is based largely on patterns in the 1970s, 1980s, and 1990s. The ghetto of the 1910s and 1920s, however, was different from the ghetto of the late twentieth century. Part of the negative impact of resi-

dence in segregated black urban neighborhoods in recent times is thought to arise from the lack of connection to job networks and role models in these places, due to the scarcity of neighbors employed in good, stable jobs. However, in the early part of the century, the black neighborhoods of northern cities appear to have been more “class-integrated,” confining both better-off African Americans and those on the bottom to the same small space. Interaction between these groups may have connected the poor to resources for improving their position (Wilson 1987: 20–62). Moreover, many of these neighborhoods were rather newly formed in the late 1910s. The experiences of their residents would have been largely shaped elsewhere, either in other parts of the city or in other cities. Thus, the kinds of concerns about aspirations and role models that arise in the discussion of late-twentieth-century segregation would not have applied to the same degree in early-twentieth-century northern ghettos. Of course, important shifts on the demand side of the labor market—the mechanization of low-skilled manufacturing jobs, the movement of manufacturing jobs to the suburbs and other locations, and the shift of central-city economies into high-skilled financial and information processing industries—were not yet in evidence during the late 1910s.

Despite the dynamic nature of the forces shaping segregated neighborhoods, we have only a few direct studies of how living in these places affected the job prospects of their black residents in the first few decades of the twentieth century. William Sundstrom (1994) examines this issue using published census data for 1940. He constructs occupational segregation indices for 18 U.S. cities and regresses these on residential segregation indices. His results reveal a negative correlation between residential segregation and occupational segregation: where residential segregation is most pronounced, occupational segregation is lowest. When regional controls are introduced, this negative correlation persists but is statistically insignificant. At least some of the inverse relationship between residential segregation and occupational segregation appears to reflect the contrast between long-standing, relatively integrated residential patterns in southern cities and newer, more segregated residential patterns in northern cities (along with greater occupational segregation in the South). A more recent study by William Collins and Robert Margo (2000) examines the evolution of the effects of segregation on wages and employment for young black men, using microdata from the IPUMS census samples for 1940, 1950, 1970, 1980, and 1990 (1960 is omitted due to inadequate geographic identifiers). They find that residential segregation

reduced wages for black men in most years. However, segregation was clearly negatively correlated with employment only in 1990 and perhaps 1980. It did not lower employment rates for black men in 1940, 1950, or 1970. There is thus some evidence for the argument that the ghettos of the earlier twentieth century may not have had the same negative effects on employment as did such neighborhoods in more recent years.

Both of these studies (like many studies of these issues) infer the effects of residential segregation from cross-city correlations of segregation and labor market outcomes. Implicitly, this approach treats the effect of segregation as the same for all African Americans in a given city, whether or not a given individual lived in a segregated neighborhood in that city. The approach here is to compare the outcomes of African Americans living in a highly segregated, developing ghetto to the outcomes of African Americans living in other parts of the same city. Differentiating between ghetto and non-ghetto residents in this way provides a more direct measure of the effects of living in segregated neighborhoods. Of course, limiting our attention to one city does raise questions about the generalizability of the findings. In addition, selective movement across neighborhoods within a city may create problems of interpretation for intracity studies such as this one. If individuals living in one neighborhood do worse, this may reflect effects of residence in that neighborhood, or it may just reflect the concentration of less successful individuals in less-desirable neighborhoods over time. Any neighborhood differences we observe will have to be interpreted in this light. Note, though, that cross-city studies may be similarly affected by selective (intercity) migration (Cutler and Glaeser 1997: 827–28; 834–35).

What did residential segregation look like in Cincinnati in the World War I era? Data recently compiled by David Cutler et al. (1999) allow us to track summary measures of residential segregation in Cincinnati and several other cities during these years. As in most northern cities, black-white residential segregation increased in Cincinnati as large-scale migration began in the 1910s. The Duncan index for black-white residential segregation in Cincinnati rose from .47 in 1910 to .56 in 1920.² By this measure, Cincinnati had a moderate to high level of segregation in 1920: an index of .56 ranks 14th among 60 northeastern and midwestern cities (14th out of 90 cities in the nation as a whole) for which the index can be calculated in 1920. The 21 percent increase in segregation in Cincinnati between 1910 and 1920 ranks as the 11th greatest increase among 45 northeastern and midwestern cities (19th

out of 65 overall) for which both 1910 and 1920 indexes are available. Cities with 1920 segregation indexes similar to Cincinnati's include New York City, Detroit, and Flint, Michigan.

As in other northern cities, this increasing segregation was fundamentally driven by rising racial tensions as the black population grew dramatically. But it was made possible by changes in manufacturing and transportation technology that were rearranging space in Cincinnati and other cities during the era of migration. Improved transportation allowed whites to move up the hills, out of the Cincinnati river basin, and commute to work. Rising rates of home ownership caused a greater share of the population to be attentive to property values and to seek income- and race-segregated neighborhoods for this reason (Taylor 1993a: 7–8). Land in the river basin began to convert increasingly toward manufacturing and commerce from more mixed residential and manufacturing usage, yet, at the same time, the black residential population of this area skyrocketed (Taylor 1993b: 177).

Cincinnati's growing African American population concentrated in the city's west end, in wards 16, 17, and 18 (see figure 1). The black population of these three wards roughly doubled from 1910 to 1920. By 1920, the district was 37 percent black (when the city as a whole was 7.5 percent black), and just about half of the black population of the city lived in these three wards (Cutler et al. 1999). As migrants moved to this area during World War I, inadequate residential construction caused rents to increase sharply, leading to overcrowding and deteriorating conditions. The Cincinnati Better Housing League found 20 people living in a three-room flat on Hopkins Street in the west end in 1923 and 94 individuals crowding into a 12-room house on George Street that same year (Fairbanks 1993: 196–97). Even as housing conditions worsened, the west end developed the characteristics of the early-twentieth-century ghetto: "racially homogeneous, but heterogeneous with respect to class" (Casey-Leininger 1993: 235).

Although the west end became the largest black neighborhood in Cincinnati in the early twentieth century, substantial numbers of African Americans lived in other parts of town as well. Clusters of black homes persisted in predominantly white neighborhoods in the eastern part of the city, remnants of late-nineteenth-century premigration residential patterns (Taylor 1984: 48–51). Other pockets of black residence arose in new areas as a result of the efforts of housing reformers and developers. For instance, Jacob Schmidlapp's Model Homes Company developed Washington Terrace (in the third

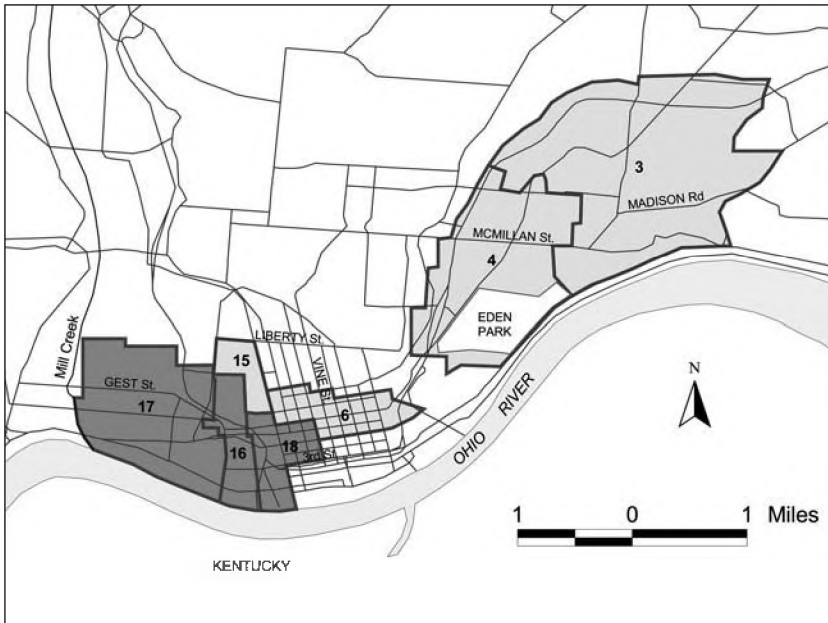


Figure 1 Cincinnati's west end (wards 16, 17, and 18) and other wards with large black communities in 1920

ward, in the north-central region of the city) as a planned African American community (Fairbanks 1988: 36). In other cases, African Americans developed new neighborhoods on their own by building homes in unincorporated areas. Ultimately, housing reform groups persuaded the Hamilton County government to enact zoning restrictions preventing such piecemeal development (Taylor 2000: 53–64). By 1920, four wards outside of the west end still contained sizable black communities (see figure 1): the third (9.0 percent black) and fourth (19.7 percent), both in the north-central part of the city, near Schmidlapp's Washington Terrace development; the sixth (10.2 percent), in the central and eastern portion of the central business district; and the fifteenth (16.7 percent), just north of the west end (Cutler et al. 1999). Small numbers of African Americans could be found in all other wards, as well.

Table 2 presents the distribution of birthplace for African American men in the linked sample, grouped by their place of residence at the time of their draft registration (1917–18) and in 1920.³ Place of residence is simply classi-

Table 2 Birthplace of black men by neighborhood of residence, 1917–18 and 1920, linked records

Years of residence	Share of neighborhood residents born in					N
	Ohio	Other North	Kentucky	Other South	Non-U.S., other U.S.	
1917–18						
Total	.15	.04	.32	.47	.02	339
West end	.08	.03	.32	.55	.02	185
Non-west end	.25	.05	.31	.37	.03	154
1920						
Total	.15	.04	.32	.47	.02	339
West end	.07	.01	.33	.57	.02	187
Non-west end	.25	.08	.30	.34	.03	152

Note: West end comprises wards 16 to 18. Set includes all black men linked to their registration record for whom 1917–18 ward could be identified.

fied as “west end” (wards 16, 17, and 18) and “non-west end” (anywhere else in the city). There was clearly substantial residential segregation by birthplace *within* the black community: blacks born in the South, particularly in states south of Kentucky, were heavily concentrated in the west end, whereas Ohioans and other northerners lived elsewhere. The particular concentration of the southern-born in the west end did not diminish at all by 1920, even for this group of men who had all arrived in the city by September 1918 at the latest. Moreover, the general concentration of the sample as a whole in the west end did not change: about 55 percent lived there in 1917–18 and in 1920. Note that the west end share of the sample exceeds the west end share based on census data for the complete black population, which was about 50 percent in 1920. This difference seems reasonable, as the sample includes only men in their 20s, 30s, and early 40s. Men in this age group were disproportionately likely to be migrants, and migrants were clearly concentrating in the west end. Note also that the stability in the west end share masks a great deal of mobility at lower levels. Just over half of the linked sample changed address during the late 1910s, and 24 percent changed ward. However, only 9 percent (17 of 185) of west end residents in 1917–18 left the area by 1920, whereas 12 percent (19 of 154) of individuals who lived outside the west end in 1917–18 entered the area by 1920.

Although the black population of the west end differed from the rest

Table 3 Occupational distribution of black men by neighborhood of residence, 1917–18 and 1920, linked records

Years of residence	Share of neighborhood residents working in					<i>N</i>
	Proprietor/ manager/ white collar	Skilled	Semiskilled	Unskilled labor	Service	
1917–18						
Total	.10	.08	.12	.47	.23	304
West end	.08	.09	.09	.52	.22	162
Non-west end	.12	.07	.15	.42	.24	142
1920						
Total	.12	.08	.10	.47	.23	321
West end	.11	.07	.10	.51	.20	177
Non-west end	.13	.09	.10	.42	.26	144

Note: West end comprises wards 16 to 18. Set includes all black men linked to their registration record for whom 1917–18 ward could be identified and who had a classifiable occupation in the given year.

of the city in terms of birthplace, differences in occupational distribution were not as pronounced and may have diminished over time. Table 3 presents information on occupation for the linked sample, for 1917–18 and 1920, by west end residence. Occupations are coded into five classes: proprietor/manager/white collar, skilled blue collar, semiskilled blue collar, unskilled blue collar laborer, and service. The classification of occupation in 1920 into these groups is based on the IPUMS coding and is fairly straightforward. For occupation in 1917–18, this classification is somewhat more involved. The most difficult distinctions were among the blue collar categories. Here, skilled work typically involves a specific trade or an elevated or supervisory position in a factory setting (e.g., carpenter, electrician, machinist, molder, foreman). Semiskilled work often deals with performance of a specific task within some routinized or mechanized process (e.g., clothing cutter, packer, grinder, driver in a factory setting). Workers classified as unskilled laborer typically listed their occupation simply as “laborer.”⁴

In the late 1910s, individuals residing outside the west end were more concentrated in proprietor/manager/white collar, semiskilled, and service work than were west end residents. West-enders were more heavily represented in skilled blue collar jobs and especially in unskilled laborer positions. By 1920, there was some net movement of west end residents into

proprietor/manager/white collar jobs, whereas African American men in other neighborhoods increased their numbers in skilled blue collar work but saw their numbers in semiskilled jobs decline. West end residents were still substantially more likely to hold unskilled laborer jobs, whereas non-west-enders were more likely to be found in service work. If we consider unskilled laborer and service jobs together as the set of lowest-status occupations (as is common in mobility studies of this type), we find the majority of workers in both areas on this lowest rung. For the city as a whole, there was no net change in this category over time: 70 percent of black men in the sample held unskilled labor or service jobs in both cross sections.⁵ In 1917–18, 74 percent of west end residents and 66 percent of non-west end residents held unskilled or service jobs. In 1920, 71 percent of west end residents held such jobs, versus 68 percent of those outside the west end. So, although west end residents were more concentrated in the lowest-status jobs in 1917–18 and in 1920, the difference was small and declining.⁶

Given the observed differences in birthplace between these areas, we should consider whether these occupational patterns might be altered when we control for individual characteristics. Table 4 presents logit estimates of the determinants of holding a semiskilled or better job for the 1917–18 and 1920 cross sections. Age (in the given year), age-squared, southern birth, and literacy are included as control variables. Literacy appears to have had a substantial positive impact on occupational status in the 1917–18 cross section, but not in 1920. It may be that employers relied more on literacy as a signal of ability in 1917–18, due to their initial paucity of experience with black labor. It may also be the case that being literate afforded an individual black worker greater access to information about better opportunities in 1917–18 but that more information was available via word of mouth in 1920, when a larger portion of the black community had experience with a broader set of employers. We probably should not place too much interpretive weight on this variable, however, as only a small number of workers in the sample (about 6 percent) were illiterate. Registrants from 1917 had a lower probability of holding a good job at registration than did 1918 registrants, by about 15 points. This difference appears to be driven by low occupational status among southern-born 1917 registrants (see Maloney 2001 for a discussion of this issue). Age effects were quite small on the whole. The southern-born had a lower probability of holding a good job, by about 6 to 10 points, but this effect is imprecisely estimated. In both cross sections, west end residence

Table 4 Cross-sectional logit estimation of occupational status

Variables	Occupation at registration (1917-18)			Occupation in 1920		
	Coefficient (standard error)	<i>P</i> value	$\frac{\delta P}{\delta X}$	Coefficient (standard error)	<i>P</i> value	$\frac{\delta P}{\delta X}$
Constant	-1.6763 (2.3926)	.484		-3.5772 (2.4277)	.141	
1917 registrant	-.7604 (.3559)	.033	-.146			
Age	.0004 (.1442)	.998	-.006	.1904 (.1444)	.187	.00003
Age-squared	-.0005 (.0024)	.825		-.0028 (.0021)	.187	
Southern birth	-.2875 (.3274)	.380	-.061	-.4099 (.3227)	.204	-.096
Literacy	1.9806 (1.0418)	.057	.252	.1151 (.5459)	.833	.026
West end resident	-.1960 (.2701)	.468	-.040	-.1560 (.2644)	.555	-.035
χ^2 (likelihood ratio test)	15.39	.017		4.25	.514	
<i>N</i>		297			314	

Note: Dependent variable = 1 if occupation is semiskilled, skilled, or proprietor/manager/white collar; 0 if occupation is unskilled laborer or service. $\delta P/\delta X$ values indicate the effect of a change in the given independent variable on the probability that the dependent variable (holding a high occupation) equals 1. They are calculated as follows: For 1917 registration, southern birth, literacy, and west end residence, these are differences between the probability when the dummy variable equals 1 and the probability when the dummy variable equals 0, with all other variables set to their means; for age, this is the full effect of one additional year of age, combining the effects of the coefficients on age and age-squared, with all other variables set to their means.

has a negative, but small and statistically insignificant, effect on occupational status. These coefficients suggest that the probability of holding a higher-status job for a west end worker of mean characteristics was .27 in 1917-18, while the probability for a non-west end resident with the same characteristics was about .31. For 1920, the implied probabilities are .33 and .36 for west end and non-west end workers with mean characteristics.⁷

Cross-sectional patterns of occupational distribution were fairly similar for blacks within and outside of the west end. But what about individual-level occupational mobility? Were individual residents of either area better able to

move up the occupational ladder? Did either group suffer more downward movement? *Upward mobility* here includes any move from an unskilled or service position to a semiskilled, skilled, or proprietor/manager/white collar position. Only individuals who held unskilled or service positions in 1917–18 were at risk for an upward move and are included in these calculations. Similarly, *downward mobility* includes any move from a semiskilled, skilled, or proprietor/manager/white collar job to an unskilled or service job, and only those individuals who held semiskilled or higher jobs are considered at risk for a downward move and are included in the calculation of downward mobility. By classifying workers on the basis of their 1917–18 neighborhood, we find fairly similar rates of upward occupational mobility: about 15 percent of west end residents and 20 percent of residents of other neighborhoods who started out in unskilled or service jobs moved up the ladder during the tight labor markets of the late 1910s. Surprisingly, the greater difference between the two areas is found in downward mobility, and this difference favors west end residents: 27 percent of west end workers at risk for a downward move actually experienced such a move, whereas 53 percent of non-west-enders at risk suffered a decline in their occupational status.

Tables 5 and 6 present logit models for upward and downward movement between 1917–18 and 1920. Controls include age, age-squared, and southern birth. I also control for the year of registration, and thus the period of time over which we can observe a job change, in two ways: first, with a dummy variable for registration in 1917 (in table 5), and second, by estimating the model separately for 1918 registrants (in table 6). Residence is considered in four categories: whether one was a permanent west end resident (that is, in the west end at both observations); whether one started in the west end but later left; whether one started outside the west end but later entered; and whether one was a permanent non-west end resident (this is the baseline category). Table 7 presents the implied probabilities of upward and downward movement for individuals of mean characteristics in each residence category, for each model. It also presents *p*-values for differences between these probabilities for each pair of residence categories.

The effect of age on mobility is again quite small. Southern birth has somewhat larger effects, especially on the probability of downward movement, but again this effect is statistically insignificant. In the pooled estimation (table 5), there is some evidence that individuals who initially lived in the west end but left by 1920 were more likely to move up than were

Table 5 Logit estimation—probability of upward and downward mobility, pooled 1917 and 1918 registrants

Variables	Upward mobility			Downward mobility		
	Coefficient (standard error)	<i>P</i> value	$\frac{\delta P}{\delta X}$	Coefficient (standard error)	<i>P</i> value	$\frac{\delta P}{\delta X}$
Constant	-3.3297 (3.5181)	.344		5.1432 (3.7917)	.175	
1917 registrant	-.2048 (.5575)	.713	-.031	-.5379 (.6481)	.407	-.131
Age	.1479 (.2350)	.529	-.004	-.2956 (.2661)	.267	-.019
Age-squared	-.0027 (.0038)	.477		.0035 (.0043)	.424	
Southern birth	.1380 (.5701)	.809	.020	.9568 (.6767)	.157	.227
Permanent west end	-.4119 (.4392)	.348	-.060	-1.0197 (.5537)	.066	-.226
West end entry	.6432 (.7000)	.358	.125	-.5757 (1.3086)	.660	-.137
West end exit	1.7950 (1.0207)	.079	.405	-1.3931 (1.1921)	.243	-.287
χ^2 (likelihood ratio test)	8.34	.303		12.69	.080	
<i>N</i>		197			84	

Note: Based on black men resident in Cincinnati in both 1917–18 and 1920 who were linked from 1920 to 1917–18 and for whom an occupation and ward were clearly identifiable in both 1917–18 and 1920. Upward Move: 1917–18 occupation = unskilled/service and 1920 occupation = semiskilled, skilled, or proprietor/manager/white collar (regression dataset includes individuals who held an unskilled/service job in 1917–18). Downward Move: 1917–18 occupation = proprietor/manager/white collar, skilled, or semiskilled and 1920 occupation = unskilled/service (regression dataset includes individuals who held a proprietor/manager/white collar, skilled, or semiskilled job in 1917–18). $\delta P/\delta X$ values indicate the effect of a change in the given independent variable on the probability that the dependent variable (making an upward move in the first equation, making a downward move in the second) equals 1. They are calculated as follows: For 1917 registration and southern birth, these are differences between the probability when the dummy variable equals 1 and the probability when the dummy variable equals 0, with all other variables set to their means; for age, this is the full effect of one additional year of age, combining the effects of the coefficients on age and age-squared, with all other variables set to their means; for residence categories, these are the differences between the probability when the dummy variable equals 1 (and all other residence category variables are set to 0) and the probability when the dummy variable equals 0 (and all other residence category variables are set to 0), with all nonresidence variables set to their means. Note that, for residence categories, these effects are therefore all calculated relative to permanent non-west end residence.

Table 6 Logit estimation—probability of upward and downward mobility, 1918 registrants only

Variables	Upward mobility			Downward mobility		
	Coefficient (standard error)	<i>P</i> value	$\frac{\delta P}{\delta X}$	Coefficient (standard error)	<i>P</i> value	$\frac{\delta P}{\delta X}$
Constant	-5.3787 (4.0893)	.188		6.5935 (4.1227)	.110	
Age	.2589 (.2634)	.326	-.010	-.3831 (.2882)	.184	-.018
Age-squared	-.0044 (.0042)	.295		.0046 (.0046)	.317	
Southern birth	.5154 (.7092)	.467	.077	1.2962 (.9463)	.171	.300
Permanent west end	-.4202 (.5341)	.431	-.060	-1.7122 (.7078)	.016	-.338
West end entry	.3987 (1.2262)	.745	.073	-.1306 (1.5040)	.931	-.032
West end exit				-.5469 (1.3880)	.694	-.132
χ^2 (likelihood ratio test)	2.44	.786		13.76	.032	
<i>N</i>		125			61	

Note: Based on black men resident in Cincinnati in both 1918 and 1920, who were linked from 1920 to 1918 and for whom an occupation and ward were clearly identifiable in both 1918 and 1920. Upward Move: 1918 occupation = unskilled/service and 1920 occupation = semiskilled, skilled, or proprietor/manager/white collar (regression dataset includes individuals who held an unskilled/service job in 1918). Downward Move: 1918 occupation = proprietor/manager/white collar, skilled, or semiskilled and 1920 occupation = unskilled/service (regression dataset includes individuals who held a proprietor/manager/white collar, skilled, or semiskilled job in 1918). $\delta P/\delta X$ values indicate the effect of a change in the given independent variable on the probability that the dependent variable (making an upward move in the first equation, making a downward move in the second) equals 1. They are calculated as follows: For southern birth, these are differences between the probability when the dummy variable equals 1 and the probability when the dummy variable equals 0, with all other variables set to their means; for age, this is the full effect of one additional year of age, combining the effects of the coefficients on age and age-squared, with all other variables set to their means; for residence categories, these are the differences between the probability when the dummy variable equals 1 (and all other residence category variables are set to 0) and the probability when the dummy variable equals 0 (and all other residence category variables are set to 0), with all nonresidence variables set to their means. Note that, for residence categories, these effects are therefore all calculated relative to permanent non-west end residence.

Table 7 Probabilities of upward and downward mobility, based on logit estimation

Residence category	Pooled 1917 and 1918 registrants		1918 registrants only	
	Upward mobility	Downward mobility	Upward mobility	Downward mobility
Permanent west end	.148	.239	.146	.144
Permanent non–west end	.208	.464	.206	.482
West end entry	.334	.328	.279	.450
West end exit	.613	.177		.350
<i>P</i> values for differences between residence coefficients				
Permanent west end versus permanent non–west end	.348	.066	.431	.016
West end entry versus permanent non–west end	.358	.660	.745	.931
West end exit versus permanent non–west end	.079	.243		.694
Permanent west end versus west end entry	.124	.733	.506	.300
Permanent west end versus west end exit	.028	.765		.442
West end entry versus west end exit	.300	.635		.837

Note: See tables 5 and 6 for coefficients. Probabilities calculated at means for regression sample for all other variables.

permanent west end or permanent non–west end residents. This result is driven by a small number of observations, however (only five individuals in the regression sample for upward mobility exited the west end). Between the two largest groups—permanent west end residents and permanent non–west end residents—the model predicts about a six-point difference in the probability of upward movement for a worker of mean characteristics, but this difference is not statistically significant. When we restrict the sample to 1918 registrants (table 6), we find no statistically significant differences in upward mobility across residence groups.⁸ The results for downward mobility are more intriguing. In the pooled estimation, permanent west end residents were only about half as likely as permanent non–west end residents to experience a downward move (the *p*-value for this difference is .066). When we limit the sample to 1918 registrants, this result is corroborated and strengthened.⁹

Industrial distribution could have played a role in generating these neighborhood patterns. Workers outside the west end may have been employed in industries that had differentially weak labor markets at this time, particularly after the war. Such differences across industry could show up here as differences across neighborhood in occupational mobility. In this context, it is worth noting that the Cincinnati labor market in general remained strong through 1919. Though there were severe reductions by mid-1921, male manufacturing employment in the city grew markedly in 1919, especially in the second half of the year. For Ohio as a whole, employment was stable or growing during 1919 even in industries such as metals and chemicals, which suffered severe downturns in 1921 (U.S. Bureau of the Census 1923, 9: 1145–46, table 8; U.S. Bureau of the Census 1924: 1537–39, table 1047). Although there was some increase in unemployment through March 1919 for the nation as a whole, the labor market strengthened considerably after that point (Stella 1944). In fact, Romer 1988 estimates a lower unemployment rate for 1919 (3.0 percent) than for 1918 (3.4 percent). Strong demand for labor characterized most industries from 1917 to January 1920, when the census was recorded.

Although we cannot profitably look at detailed industries in the Cincinnati sample, we can look at the distribution of workers across broad industry categories at the time of their selective service registration (see table 8).¹⁰ Both within and outside the west end, unskilled and service workers were concentrated in durable and nondurable goods manufacturing and in transportation and communication. The biggest difference across neighborhoods is the concentration of non-west end workers in personal services. Workers in semiskilled or higher jobs in the west end typically were found in professional, government, and business services, nondurable goods manufacturing, and construction, while such workers elsewhere in the city were also employed in professional, government, and business services and nondurable goods manufacturing, as well as transportation and communication.

We can get a quantitative estimate of the role of industrial distribution in generating neighborhood differences in occupational mobility by calculating standardized mobility rates, using the pooled industrial distribution and neighborhood-specific mobility rates for each industry. The standardized upward mobility rates are calculated as $S_N = \sum_i b_i \times M_{N,i}$ and $S_W = \sum_i b_i \times M_{W,i}$, where S_N (S_W) is the standardized rate for the non-west end (west end); b_i is the share of all black unskilled and service workers employed in industry i , calculated for the city as a whole; and $M_{N,i}$ ($M_{W,i}$) is the upward

Table 8 Distribution of African American workers across industries

1917–18 industry	West end	Non–west end	Total
Unskilled and service workers			
Construction	.076	.056	.067
Manufacturing—durables	.283	.306	.293
Manufacturing—nondurables	.196	.125	.165
Personal service	.087	.181	.128
Professional/business/government service	.022	.056	.037
Transport/communication	.272	.194	.238
Wholesale and retail trade	.065	.083	.073
<i>N</i>	92	72	164
Semiskilled/skilled/proprietor/manager/ white collar workers			
Construction	.205	.100	.152
Manufacturing—durables	.154	.050	.101
Manufacturing—nondurables	.231	.200	.215
Personal service	0	0	0
Professional/business/government service	.231	.375	.304
Transport/communication	.128	.200	.165
Wholesale and retail trade	.051	.075	.063
<i>N</i>	39	40	79

Note: Based on linked sample. See text for details regarding industry classification.

mobility rate in industry i for black workers who lived in the non–west end (west end). Standardized downward mobility rates are calculated analogously. Standardizing in this way has essentially no impact on the occupational mobility patterns. In particular, downward mobility remains about twice as common for non–west-enders as for west-enders. Standardized upward mobility rates are .14 in the west end and .20 in the non–west end. Standardized downward mobility rates are .26 in the west end and .57 in the non–west end. I also calculated a second set of standardized mobility rates, using citywide mobility rates for each industry and neighborhood-specific industrial distributions. This form of standardization causes neighborhood differences in mobility to disappear: upward mobility rates are about .16 for both neighborhoods, and downward mobility rates are .43 for the west end and .40 for the non–west end. By either method, then, the calculations indicate that mobility differences arose not from differing industrial distribution across neighborhoods but from different mobility patterns controlling for industry.

Of course, the concentration of workers in different specific industries within these broad categories could affect neighborhood mobility differences.

We also might be concerned about the potential impact of returning white war veterans on the occupational mobility of black workers. Perhaps black workers outside the west end experienced downward mobility as they were displaced by returning white soldiers. There are two reasons to doubt that this phenomenon drives the results here. First, returning World War I veterans appear to have been absorbed relatively easily into the work force. The number of returning veterans was not nearly of the same magnitude as during demobilization after World War II. In 1920, there were 4.5 million World War I veterans in civil life. If all were labor force participants, they would have amounted to about 13 percent of the male labor force in that year. In comparison, there were 14.4 million World War II veterans in civil life in 1947, equal to about 35 percent of the male labor force (U.S. Bureau of the Census 1997: series D11-25 and series Y957-70). As noted above, unemployment remained low through 1919, even as World War I veterans returned home. Second, non-west end blacks who held semiskilled or better jobs in 1917-18 were not especially likely to work in industries in which white workers held these jobs after the war. White semiskilled or better workers were most heavily concentrated in durable goods manufacturing in 1920, a category in which we find more better-off west end blacks than non-west end blacks in 1917-18 (see table 8). In fact, using a Duncan index for industrial segregation between whites in semiskilled or better jobs in 1920 and blacks in semiskilled or better jobs in 1917-18, we find less dissimilarity between whites and west end blacks than between whites and non-west end blacks (details available from the author). It therefore seems unlikely that the higher rate of downward mobility for non-west end blacks was caused by a higher rate of displacement by returning white veterans.

We should note also that military service itself could have had an effect on occupational status and occupational mobility. Training received in the military may have allowed veterans to advance upon their return home. Moreover, veteran status may have served as a sign of discipline and productivity, a signal that might have been particularly valuable for black men facing skeptical white employers. Indeed, some promoters of the draft actually hoped to institute universal military training in part as a way to improve the productivity of workers (Chambers 1987: 87-96). Unfortunately, neither the draft registration records nor the 1920 census records include informa-

tion on World War I military service. Still, our ignorance about veteran status should not be too great a problem, for several reasons. First, we should note that nearly all black draftees served as military laborers—digging graves, loading and unloading supplies, and so on. They received very little training, even relative to white military laborers (Barbeau and Henri 1974: 89–99), so direct effects of military service on work-related skills probably would have been minimal for African Americans. Even if veterans did gain labor market skills or valuable signals from their service, effects on our calculations would be limited because only a small minority of registrants were actually drafted. Only about 10–12 percent of the 23 million registrants actually served in the military during the war, though the draft rate for black men may have been slightly higher (Chambers 1987: 200–223). In particular, very few of those who registered in September 1918 were drafted: of 13.4 million individuals who registered at that time, 143,000 were drafted before the end of conscription on November 11. The fact that the results for 1918 registrants corroborate those for all registrants (in tables 5 and 6) suggests that military service is not an important distorting factor. Finally, for military service to affect the neighborhood differences documented here, there would have to have been different draft rates by neighborhood for otherwise-similar black men, which seems unlikely.

If the lower rate of downward mobility in the west end really is related to neighborhood of residence, what characteristics of the neighborhood could have produced it? The issue here is not just that the west end was no worse than other areas of black residence in these occupational dimensions. Rather, there is evidence of some advantage to west end residence in terms of avoiding downward occupational mobility. It may be that informal networks of communal support developed within the west end, helping black men hold on to better jobs once they acquired them. In her recent study of the black community in Cleveland in the early twentieth century, Kimberley L. Phillips describes several networks and informal institutions of this type. Households often shared child-care duties. Recent migrants in particular would encourage young women from their hometowns to move north to help with their children. Alternatively, children could be sent south to stay with relatives in the summer, thereby freeing up their parents. Fraternal groups and street clubs developed, along with cooperative insurance schemes. Rent parties, at which friends and neighbors would contribute to help a family meet their rent payment, were a southern tradition that began to appear in northern

black communities at this time. The very fact of “chain migration,” resulting in flows of migrants from particular southern towns to particular parts of northern cities, reflects the presence of information networks in these communities (Phillips 1996: 402–5, 1999: 183–85). Being able to draw on such communal resources may have aided household stability, thereby generating greater job stability. In addition, flows of information through these networks may have taught black workers which employers would keep them on in better jobs and which firms were characterized by less resistance from white coworkers. Of course, African Americans outside the west end could have developed such networks and institutions of support. However, the greater density of black residence in the west end may have increased the communal resources and information available to families in that neighborhood. Moreover, as many of these practices appear to have been particularly common among migrants, the greater presence of recent migrants in the west end may have produced stronger networks there.

Conclusion

Neighborhood of residence within Cincinnati may have affected labor market outcomes for African Americans in the late 1910s, but not in the expected way. Black residents of the west end, the city’s growing ghetto, were only slightly more likely than blacks in other neighborhoods to hold low-status jobs. They suffered no substantial disadvantage in upward mobility, and they were better able than African Americans elsewhere in the city to hold on to higher-status jobs once they earned them.

These results must be interpreted in a broader context. Upward mobility was much less likely for blacks than for whites in Cincinnati in the late 1910s, and downward moves were much more common for blacks (Maloney 2001). Outcomes in Cincinnati may not have been representative of the nation (or the North) as a whole. In addition, these results pertain to a somewhat select group of black Cincinnatians: men resident in the city in both 1917 (or 1918) and 1920. We do not know anything about the experiences of individuals who left the city between these dates, and different patterns of selective out-migration by neighborhood could alter our conclusions. Still, the evidence here corroborates other recent findings regarding the historical dynamics of residential segregation and labor market outcomes. It adds to growing empirical support for the contention that the nature of segregated African

American neighborhoods changed over the course of the twentieth century, at least with regard to the labor market prospects of ghetto residents (relative to blacks living in less-segregated areas). Additional longitudinal studies of this type for other communities will help to establish whether these patterns were widespread. Moreover, as new documents from this era (such as the recently released 1930 census manuscripts) enter into the public domain, we will be able to move such analysis forward in time, producing a more continuous story of the development of segregated African American neighborhoods in U.S. cities.

Notes

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- 1 Records were linked based on name, age, race, birthplace, and information about other family members. See Maloney 2001 for more details.
- 2 The index is calculated as $D = \sum_i |b_i - w_i| / 2$, where $b_i (w_i)$ is the share of the black (white) population found in a geographic unit i . The index ranges from 0 to 1 and can be interpreted as indicating the share of the black or white population that would have to be relocated to create identical black and white distributions across all geographic units in the city. The unit used here is the ward (Cincinnati was composed of 26 wards in 1920, with an average population of about 15,000). We would generally prefer to use a smaller unit of observation, such as a census tract, but census information was not organized by tract before 1940. We might also be concerned that the boundaries of wards are endogenous to the racial and ethnic composition of the population; that is, lines might be drawn specifically to disperse black voters across wards in order to minimize the impact of their votes. However, Cutler et al. (1999: 499) find that in 1940, when both ward and census tract are available, segregation indices calculated by either measure produce very similar rankings across cities, though the level of the index is lower for each city when ward is used.
- 3 “Ward” is not listed on the draft registration records. It was imputed from addresses and ward maps and also by comparison to records in the 1920 IPUMS file for Cincinnati.
- 4 Occupations were coded into categories with reference to Thernstrom 1973, Sobek 1996, Edwards 1938, the *Dictionary of Occupational Titles* (U.S. Employment Service 1939), and the IPUMS documentation (Ruggles and Sobek 1997). Note that I also considered a division of service work into “semiskilled” and “unskilled” groups with, for example, butler, waiter, and chauffeur as semiskilled service jobs and jani-

tor and porter as unskilled. Grouping semiskilled service jobs with semiskilled blue collar jobs had no substantial impact on the results. Also, note that reporting an occupation did not necessarily mean that one was currently employed. In fact, the census enumerators in 1920 were explicitly instructed to record occupations for those temporarily unemployed. In these cases, the reported occupation should be the one usually held by the worker (U.S. Bureau of the Census 1919: 32–33). There is no separate indication of current employment status on the 1920 census manuscripts or on the selective service registration records. I am unaware of any explicit instructions to draft registrars regarding how to record occupations for currently unemployed workers, but only one linked registration record specifically indicates that the individual was unemployed at the time of the registration, one indicated “no occupation,” one was reported as a hospital patient, and two were reported to be in the workhouse. Three individuals in the linked dataset reported “no occupation” in 1920. All of these observations are dropped from the relevant cross-sectional analyses and from the mobility analysis.

- 5 In contrast, William Collins (2000) presents evidence on occupational mobility during the 1940s and finds a clear net upward movement for black men between 1940 and 1944. It appears that the World War II boom may have had a substantially more positive impact on black occupational mobility than did the World War I boom. Several caveats are in order, though. Collins uses a more refined, income-based measure of mobility, and his data include occupation at place of origin for migrants. Mobility here is across broad classes, and the data include information on occupation while residing in Cincinnati only. Thus Collins’s study captures two kinds of mobility that we cannot see here: movement within broad occupational class and movement between premigration and postmigration occupation.
- 6 Admittedly, combining unskilled and service jobs obscures an occupational distinction between the two areas, a distinction that deserves further investigation.
- 7 *N*’s differ from those in table 3 due to missing or illegible control variables. Also, individuals born outside the United States are excluded from the regressions. *N*’s differ between the two cross sections due to differing numbers of observations with unclear or unclassifiable occupations. Separate regressions for 1917 registrants and 1918 registrants also produce insignificant results for west end residence.
- 8 There are no west end exiters in the upward mobility regression sample for 1918 registrants.
- 9 Linear probability models produce nearly identical results. There is insufficient variation in literacy in the downward mobility regression set to add this variable as a control. Adding literacy to the upward mobility estimation has no substantial impact on the results. Using a more inclusive definition of occupational mobility (i.e., including upward moves from semiskilled to skilled or proprietor/manager/white collar and from skilled to proprietor/manager/white collar and including downward moves from proprietor/manager/white collar to skilled or semiskilled and from skilled to semiskilled) produces very similar results.
- 10 Industry is not recorded on the selective service registration forms, but employer

(usually) is. I categorized industry with reference to the name of the employing firm and, in many cases, with reference to business listings in Cincinnati city directories for the period. Thirty-five unskilled and service workers (21 from the west end and 14 from elsewhere) and 9 semiskilled or higher workers (2 from the west end and 7 from elsewhere) could not be classified.

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