Chapter 1: Migration in African-American Economic History

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In the early twentieth century, American cities were home to immigrants from around the world; 23 percent of the urban population in the United States in 1910 was born abroad. Immigrants were attracted to the industrial centers of the Northeast and Midwest, cities like Chicago, Pittsburgh and Detroit, which offered plentiful jobs in rail yards, steel works and automobile manufacturing. Despite the promise of high wages, daily life in an American city was difficult, often centered in overcrowded neighborhoods and unsanitary conditions. The quality of urban life, while low, was improving as deadly disease outbreaks were contained by new sewer and water systems, slow, dirty omnibuses were replaced with clean, futuristic street cars or subways; and private benefactors endowed music halls, libraries and art museums to announce the arrival of their city on the world’s cultural stage.¹

The one population that would have seemed most uniquely poised to benefit from this urban momentum was rural black southerners. A trip from Georgia to Philadelphia or from Mississippi to Chicago took but a short train ride. By moving North, many blacks could expect to increase their yearly earnings by 50 percent. Yet, despite this proximity to cities of plenty, black migration to urban centers was rare at the turn of the twentieth century. In 1900, nearly 40 years after the Emancipation Proclamation decreed an end to slavery, 87 percent of African Americans

still lived in the South, and 83 percent of these black southerners lived in a rural area (see Table 1). This regional distribution contrasts with that of the white population; only 26 percent of white native-born and a startling small 4.4 percent of white foreign-born lived in the South. The concentration of the African-American population in the South was largely a legacy of slavery, an economic system that was most profitable for farming the southern cash crops of cotton and tobacco. Although the initial settlement of slave workers in the South was indeed involuntary, two subsequent generations of African Americans either could not or did not leave the region after receiving their freedom, despite the high wages and other attractions of northern cities.

The apparent southern spell rooting blacks in the South lifted on the eve of World War I. Between 1915 and 1980, six million African Americans abandoned the low wages and second class citizenship of the South to settle in the urban centers of the North and West. This mass migration, often referred to as the Great Black Migration, led to a dramatic shift in the regional distribution of the black population. By 1970, for the first time in American history, a majority of the country’s black residents lived outside the South, with 45 percent living in the Northeast and Midwest and 8 percent in the West (see Table 1).

In the process, the share of African-Americans living in rural areas fell from 77 percent in 1900 to 22 percent in 1970.

This chapter focuses on the set of economic forces that first encouraged blacks to leave the rural South en masse around World War I and inspired on-going migration to the urban North in large numbers through the mid-twentieth century. I begin by placing the first black departures from the South circa 1915 in the context of earlier black mobility within the South after the Civil War. The extent of black mobility in the post-Bellum South is a matter of dispute. Some scholars argue that black workers were highly mobile and, by moving from farm to farm, were able to

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2 Despite mass out-migration, blacks were still over-represented in the South in 1970. In that year, 48 percent of blacks but only 27 percent of native-born whites were southern residents.
seek out higher wages or better contract terms. Others contend that black southerners, particularly those who worked as share tenants, were largely immobile, stuck in place by an accretion of debts and a legal infrastructure, including anti-enticement and vagrancy laws, designed to keep blacks quite literally in their place. Using Census data on inter-state migration arranged by birth cohort, I show that migration of all southern born individuals, both black and white, fell dramatically over the nineteenth century as settlement on the southern frontier drew to a close. Although white southerners were more mobile than their black counterparts in the mid-nineteenth century, this racial mobility gap began to close as early as 1890.

An early decline in the black-white mobility gap suggests that the Great Black Migration is notable not for being the first wave of significant post-emancipation black mobility but rather for marking a shift in the destinations of black migrants. Before World War I, most black migrants engaged in lateral moves within the rural South; thereafter, southern blacks began turning toward the cities of the North and West. This regional shift raises two related questions: if southern black mobility was already high in the late nineteenth century, why did black migration to high-wage northern cities not begin earlier at an earlier date? And, after delaying for so long, why did southern blacks suddenly start moving North in the 1910s?

Models of “chain migration,” wherein the first migrants to an area facilitate the later moves of friends and family, help to explain this puzzle (Carrington, et al., 1996). It can be prohibitively costly to be the first migrant from a given community to settle in a new destination because these pioneers cannot rely on a social network to assist them with securing a job or finding a place to live. Therefore, black migration to northern and western cities is only expected to begin when the benefits of migrating to this uncharted territory exceed the substantial cost of striking out on one’s own.
The value of moving to the North was amplified in the mid-1910s by the simultaneous advent of three factors: a temporary disruption to European immigration, the typical labor supply of northern industry, during World War I; a bump in northern labor demand as factories expanded to supply the war effort; and falling demand for agricultural labor in the South due the spread of a destructive cotton pest. Although this “triple shock” dissipated within a few years, it had a long-lasting effect on the flow of black migration. Migrants who had initially been pulled northward by the promise of a factory job were able to facilitate the further migration of family, friends and community members. Furthermore, northern employers who gained experience with a black workforce during the war became more open to hiring black workers in the future.

After its initial spark, mass black migration to the North quickly accelerated, quadrupling from 200,000 departures in the 1910s to 800,000 in the 1920s, and then peaking in the 1940s, when nearly 15 percent of the southern black population left the region. The black migrant flow out of the South tapered off through the mid-twentieth century and, by the 1980s, was outweighed by the arrival of new black migrants to the South who joined the national move toward the growing cities of the Sunbelt.

These new estimates of black migration from the South, based on a modification of methods outlined in Gregory (2005), reveal that black migration followed “one big wave” out of the South. Rather than conforming to the now-standard periodization of the black migration into two waves, one ushered in by the first World War and the other by the second, I show that black migration rose smoothly to mid-century and fell thereafter. Confusion about this timing arises from the temporary dip in black migration rates in the 1930s, which followed the broader trend of declining mobility during the Depression.
Understanding the Great Black Migration as “one big wave” helps to place this event into the context of other migration activity throughout history. The inverted U-shape of the migrant flow, by which migration rises sharply after a long period of inactivity and then peaks, only to quickly recede, has been shown to be a common feature of many migration episodes (Hatton and Williamson, 2004). Such regularities can be explained as the outcome of many individual decisions. Alongside other work on migration throughout the social sciences, the economic approach to migration places the individual migrant or her household, rather than the impersonal forces of history, at the center of the narrative.

< To be added here: A paragraph on the last section of the chapter discussing variation in the timing of out-migration across the South. What factors help to explain who moves when? Agricultural mechanization by crop (tractors, pickers, herbicide); white reaction to civil rights (Strom Thurmond votes); factors in northern cities, which were tied to particular southern states (e.g., WWII factories); etc. >

The Great Black Migration against a Nineteenth Century Backdrop

The Great Black Migration is widely acknowledged to be a revolutionary episode in African-American history. This section will argue that this label is warranted not because the Great Black Migration represented an uptick in otherwise low black mobility rates in the South, and not even because it was the first mass migration undertaken by black Americans, but rather because it reflected a dramatic change in the destinations in which black migrants chose to settle. I show here that the mobility rates of southern blacks began increasing in the late nineteenth century and had completely converged with those of white southerners by around 1890. This racial convergence took place entirely within the South. In contrast, the participants in the Great Black Migration settled in northern cities large numbers and, compared with blacks living in southern cities, were more likely to work in the industrial sector, rather than in domestic service.
It is difficult to define a “mass migration,” as opposed to a more standard migration flow. Over 11 percent of Americans change residences every year; yet we hardly consider the United States to be in the constant grip of mass migration (Molloy, Smith and Wozniak, 2011). At the least, a mass migration should include a large share of the sending population and entail movement over a long distance or to a radically different area (such as from a communist to a capitalist economy). By this admittedly loose definition, the Great Black Migration may be considered the third mass migration in African American history, with the first being the middle passage from Africa to the New World and the second being the mass movement of slaves with their owners from the eastern seaboard to the rich cotton lands on the southern frontier (Berlin, 2010). The distinguishing feature of the Great Black Migration then is that it is the first voluntary mass migration of a population well-acquainted with constant movement.

A core feature of living in slavery is a lack of freedom to choose one’s own physical location. Masters can allocate slaves to the location in which they would reap the highest profit. Before the national abolition of the slave trade in 1808, 700,000 slaves were imported from the western coast of Africa to the United States, first to the American colonies and then to the sovereign nation. The early slave economy focused on the cultivation of tobacco, indigo and rice. By 1860, the majority of slaves participated in the cultivation of cotton, which had expanded nine-fold over the past four decades to an annual production of 4.5 million bales. On

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3 Only 7 percent of slave imports to New World were sent to the United States; the majority of slave imports settled in Brazil and colonies in the Caribbean (Fogel, 1989, p. 18; see also Curtin, 1969; Lovejoy, 1982).

4 Wright (1978) estimates that world cotton demand increased at an annual rate of 5 percent in the Antebellum period, quadrupling from 1830 to 1860. Production increased both through the clearing of new cotton acreage on the western frontier (the extensive margin) and through innovation that allowed farmers to reap higher yields per acre farmed (the intensive margin). Key technological improvements included the invention of the cotton gin in 1793 and the introduction
the eve of the Civil War, 4 million slaves were tallied on the Census slave schedules. In the parlance of immigration studies, most of these slaves were second (or higher) generation Americans, meaning that they had not immigrated to the United States directly but were the descendants of previous immigrant waves (Portes and Rumbaut, 2006).

As demand for cotton grew, planters pushed westward into the rich alluvial soil of Mississippi Delta. Cotton cultivation required sufficient rainfall and a minimum of two hundred frostless days and therefore could not spread further west than central Texas or further north than southern Missouri. Over the first half of the nineteenth century, the distribution of black population followed the diffusion of cotton agriculture. Fogel (1989) estimates that 835,000 slaves were moved west either by their owners or by slave traders over this period (p. 65). In 1790, before this wholesale relocation to the southern frontier, 56 percent of black population was located in the eastern states of Virginia and Maryland. By 1860, these two states contained only 15 percent of the black population as the center of gravity shifted further west. Traces of this slavery-led mobility can also be seen through a comparison of lifetime in-migration rates; in 1880, blacks in the new cotton states of the southern frontier were five times more likely than blacks in the South Atlantic to have been born in another state.5

Emancipation was, in some ways, a fundamental break from the slave past. With the ending of slavery, blacks were no longer compelled to accompany owners who were keen to open up new land to cotton production. The dismantling of the slave economy allowed former slaves to contract on their own to rent their own labor of the market. The development of a free of new seed varieties that were immune to cotton diseases and had certain properties conducive to rapid harvesting (Olmstead and Rhode, 2008, p. 107-114).

5 In 1880, 23.3 percent of blacks in the new cotton states had been born elsewhere, compared to only 4.2 percent of blacks in the South Atlantic. The South Atlantic includes Maryland, Virginia, North and South Carolina and Georgia and the West includes Alabama, Mississippi, Louisiana, Arkansas and Texas. A similar contrast holds for whites.
labor system in the South was a slow process that emerged through “trial and error” (Alston and Higgs, 1982, p. 327; Cohen, p. 3-22). What emerged over the late nineteenth century was a mixed system of landownership, tenancy and wage work. By 1900, 15 percent of rural southern blacks had accumulated enough capital to buy their own plot of land. Of the remainder, 22 percent farmed a rented plot; 22 percent worked as share tenants, splitting the harvest with the land-owner at the end of the year; 29 percent worked as farm labor for a wage; and the remaining 12 percent were engaged in other, non-farm work.6

Despite important changes in the right to move and to contract at will, the post-Bellum period can also be seen as having much continuity with the slave past. Although slave agriculture – first in tobacco, indigo and rice, and later in cotton – was responsible for the first settling of slaves in the South, 89 percent of blacks still lived in a southern state in 1910, nearly fifty years after emancipation.7 Of these, 79 percent lived in a rural area; 76 percent of rural blacks engaged in agricultural activities, many on the same land that their parents and grandparents had worked as slaves. In contrast, only 25 percent of the white population (nationwide) held an agricultural occupation in 1910, a time when manufacturing was taking off, especially in northern cities.

Furthermore, although in principle emancipation conferred certain core rights on the freed population, the actual ability of former slaves to move and contract freely remains an open

6 I conduct these calculations as follows: in the 1900 Census, 59 percent of rural southern black adults (age 18-65) reported being farm operators; over two thirds of the remainder reported their occupations as farm labor or general labor. According to the Census of Agriculture, 25 percent of black farm operators in that year were owner-operators; 37 were cash tenants (renters) and 38 percent were share tenants (Wright, p. 107).

7 Organized migrations from the South, including the “Exoduster” movement to Kansas in 1879 and 1880 and various “back to Africa” expeditions, were quantitatively small. The best estimates suggest that only 2,500 African-Americans migrated to Africa in the nineteenth century, while 10,000 joined the Exoduster movement to Kansas (Johnson and Campbell, 1981; see also Painter, 1986 on the symbolism of these movements in black history). At most, a few hundred thousand blacks moved individually to northern and western states before 1910.
question. Some scholars, such as Gavin Wright, argue that, during periods of high demand for labor, “freedmen moved from place to place in large numbers, driving hard bargains” (Wright, p. 65). Others emphasize that tenant farmers were often in debt to the land-owner and, therefore, “…had no choice but to agree to work yet another year, often at the same terms, for the same landlord, on the same land” (Berlin, 2010, p. 142; see also Ransom and Sutch, 1977). Furthermore, southern anti-enticement and vagrancy laws limited the mobility of black workers, thereby reducing their bargaining power (Cohen 1991; Naidu, 2010). Anti-enticement laws prevented prospective employers from hiring workers who had already contracted to work for another entity, while vagrancy laws made it difficult for wage workers to leave one job and spend time searching for another.

At the heart of this debate lies a simple question of fact: were southern-born blacks less likely to move than southern-born whites after emancipation? I provide new, long-run evidence on the mobility rates of southerners over the nineteenth and twentieth centuries by race and birth cohort. I use Census records to construct lifetime mobility measures, with migration defined as leaving one’s state of birth. Census data has the benefit of providing a consistent measure of mobility that can be compared over a long time horizon. However, the lifetime migration measure that one is able to calculate in the Census has some flaws. For example, this indicator misclassifies return migrants who re-settle in their state of birth as non-movers and only captures

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8 Central to Wright’s claim is evidence from the Census of Agriculture “stability of farm operations” survey in 1910, which documents high mobility rates for both black and white share tenants. 51.3 percent of black share tenants and 55.7 of white share tenants had been at their current location for one year or less (Wright, p. 93).

9 Naidu (2010) examines the effect of anti-enticement and vagrancy laws on the southern labor market. He estimates that doubling the vagrancy fine would have decreased the probability of sharecropper mobility by an additional 5 percentage points (from a base of 17 percent).
migration that takes place across state lines.\textsuperscript{10} Although the majority of moves take place within states, a case could be made that long-distance, cross-state moves are more economically significant.

I reconstruct lifetime mobility rates for the birth cohorts of 1810 to 1970 from seven Census waves ranging from 1880 to 2000. Most cohorts are observed in more than one Census. Individuals who live outside of their state of birth are classified as lifetime migrants. Of course, lifetime mobility rates increase with age because older individuals have had more years in which to potentially leave home. By observing each birth cohorts multiple times, I am able to separately estimate the relationship between lifetime migration and both birth cohort and age. In particular, I estimate:

\[I(\text{outside state of birth}) = a + b(\text{age}) + c(\text{age}^2) + (\text{Birth cohort indicators}) \cdot \Delta + e\]  \hspace{1cm} (1)

where \(I(\text{outside state of birth})\) is an indicator variable equal to one for all individuals who live outside of their state of birth, \(\text{age}\) and \(\text{age}^2\) introduce a quadratic function by which lifetime migration may be related to age, and \(\text{Birth cohort indicators}\) is a vector of dummy variables, one for each birth cohort in the sample. The coefficients of interest (the vector \(\Delta\)) indicate the age-adjusted lifetime migration rate of each birth cohort in the sample.\textsuperscript{11}

Figure 1 depicts lifetime mobility rates for white and black southerners over the nineteenth and twentieth centuries. Although migration can take place at any time in the life cycle, individuals are most likely to migrate when they are in their twenties (Johnson, et al.,

\textsuperscript{10} Between 1935 and 1940, the first years in which such migration data is available at a national level, only 4.4 percent of moves conducted by African-American heads of households took place across state lines.

\textsuperscript{11} Birth cohorts enter the sample only when they reach the age of 30 to further address the relationship between age and lifetime migration.
2005). To map birth cohorts into calendar time, the X-axis arranges the data into “migration cohorts,” defined as birth year plus 30. For example, individuals born in 1900 are included in the migration cohort of 1930. The figure reports the predicted lifetime migration rate for a 30-year old individual in each migration cohort using the estimated coefficients from equation 1.

Three patterns emerge from the data. First, in the early nineteenth century, mobility rates were high for all southerners. In the 1840 migration cohort, for example, nearly 50 percent of white southerners left their state of birth by age 30. However, there was a racial mobility gap in this period, with white southerners being 10 percentage points more likely to live outside of their state of birth than were their black counterparts. Second, the mobility rates of all southern-born individuals, both black and white, declined over the nineteenth century as the southern frontier filled in. By 1900, only 25 percent of white southerners lived outside of their state of birth. These patterns suggest that the “immobility” of black tenant farmers in the post-bellum South did not reflect a race-specific obstacle to migration but rather belonged to a wider regional trend of falling mobility. Finally, there is a notable rise in black mobility rates – and a closure of the racial mobility gap – beginning with the migration cohort of 1890 and continuing steadily through the early 1960s. In other words, racial convergence in mobility rates among the southern born did not await the move north (which began circa 1915) but was already underway by 1890, beginning with an increase in mobility within the South.

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12 In 1940, for example, only 30 percent of individuals in their twenties lived in the same house as they had five years before, compared to 40 percent of young children (ages 6-17) and of older adults (ages 35-45).
13 This cohort-level view of the Census data is consistent with Rosenbloom and Sundstrom (2003), who examine the racial mobility gap in various Census years. These snapshots reveal that, among men in their thirties, blacks were seven percentage points less likely than whites to leave their state of birth in 1880. The racial mobility gap declined to five percentage points by 1900 and to only two percentage points by 1910, a few years before the Great Black Migration began.
Previous scholarship has identified black tenant farmers as a particularly immobile group. Yet this pattern is not apparent in the 1940 Census, the first nationally representative dataset to contain information about internal mobility. The 1940 Census asked respondents where they lived in 1935, five years before the survey was taken. As in other Census years, individuals also report their occupation, their place of residence (farm or non-farm) and whether or not they own their residence.

The 1940 mobility data presented in Figure 2 shows that black tenant farmers did not suffer from a specific mobility penalty. Rather, the mobility rates of black tenant farmers are nearly identical to those of both white tenant farmers and black farm laborers. 70 percent of black tenant farmers moved between 1935 and 1940, compared to 73 percent of white tenant farmers. Tenant farmers were three percentage points less likely to move than were farm laborers of the same race. More notable is the mobility gap between farm owners and non-farm owners. Only 33 percent of both white and black farm owners changed residences between 1935 and 1940, a mobility rate that was only half as large as for their tenant counterparts. Because blacks were less likely than whites to be owner-operators, overall black mobility rates in the South were somewhat higher than white mobility rates in the 1930s.14

The Triple Shock: Black Migration Turns Northward

The previous section demonstrated that racial convergence in mobility began in the late nineteenth century, before the black migration to the North had reached large numbers. The existence of a high black mobility rate within the South deepens the puzzle of why the Great

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14 Mobility rates in the 1930s may not be representative of other periods. New Deal policies, particularly the Agricultural Adjustment Act, may have displaced tenants from their land, generating abnormally high mobility rates for black laborers during this period (Whatley, 1983).
Black Migration to the North did not start earlier. From emancipation onward, blacks faced low wages and pervasive social discrimination in the South. Earnings in southern agriculture were 50 to 70 percent lower than the wages offered in entry-level factory positions in the North (Lebergott, 1964; Coelho and Shepherd, 1976).\textsuperscript{15} Local- and state-level restrictions, collectively referred to as the Jim Crow laws, segregated blacks and whites in public schools, on buses and trains, and in other public facilities. Poll taxes and literacy tests effectively barred blacks from participating in southern elections. Moreover, blacks were subjected to arbitrary violence; in the early 1890s, lynchings peaked with 100 victims per year (Tolnay and Beck, 1995, p. 184). Yet, despite all of the drawbacks of living in the South, black migration to the North was rare before 1915. If general black mobility was restricted by southern institutions, such as anti-enticement laws or credit relationships with local planters, the lack of northward mobility could be blamed on these southern constraints.\textsuperscript{16} But if these constraints did not bind, why did so many blacks move from place to place yet choose to stay in the South before 1915?

This section will review a simple model of chain migration that can help explain limited black migration to the North despite the existence of persistent regional wages gaps. A key feature of the model, which is due to Carrington, et al. (1996), is that the cost of migration depends on the presence of previous migrants from one’s family or home community in one’s prospective destination. In particular, a larger stock of existing migrants from a given community

\textsuperscript{15} In 1880, common laborers in the South Atlantic earned 55 percent less than those in New England or the East North Central (Coelho and Shepherd, 1976, p. 229-30). Including board, farm laborers in the South Atlantic earned 58 to 75 percent less than comparable workers in those two northern regions (Lebergott, 1964, Tables A-23 and A-24).

\textsuperscript{16} Indeed, the lack of earlier black out-migration from the South has often attributed to “rigidities and racial barriers built into southern economic institutions” (Ransom and Sutch, 1977, p. 194). By this logic, “the large gaps between southern and northern incomes should have attracted southern labor to the North [and the fact that it did not] can only be explained by barriers to mobility in factors of production.”
reduces the cost of future migration activity. Established migrants can reduce the migration cost for newcomers by helping them to secure a job upon arrival or by lessening the burden of assimilation into a new culture. This model of chain migration is consistent with a richly documented history of the many ways in which the first black migrants to the North helped their friends and family members follow in their footsteps. These forms of assistance included sending letters and distributing northern newspapers, providing job references and a place for new migrants to sleep upon first arrival, and contributing to formal institutions like the Urban League that offered job training and employment placement services (Scott, 1919a; Grossman, 1989; Thomas, 1992).¹⁷

Relatedly, the first black migrants to “get their foot in the door” of northern factories during World War I facilitated the hiring of additional black employees (Kusmer, 1976, p. 67). In the early twentieth century, northern factories relied heavily on ethnic networks to recruit workers (Bodnar, Simon and Weber, 1982). Employers often prefer to use referrals from their existing workforce to hire new workers because current employees have an incentive to provide truthful recommendations to avoid risking losing their own job (Montgomery, 1991). Therefore, after the black migration began, the African-American community became yet another labor pool from which employers could draw potential employees. Moreover, as emphasized by Whatley (1990), early southern hires allowed northern employers to learn about the productivity of the black workforce. Before the war, northern employers may have had negative impressions about the productivity of black southerners, who were stereotyped as lazy and ignorant. After gaining

¹⁷ Chay and Munshi (2012) offer quantitative evidence consistent with the importance of social networks in facilitating black migration from the South, showing that black out-migration rates were higher from counties with a larger population density of black residents.
experience with black workers, many of whom were found to be hardworking and diligent, many employers changed their views.\textsuperscript{18}

A model of “dynamic” migration costs, in which migration costs are a function of previous migration levels, generates predictions consistent with the history of black migration from the South. Given that, in this framework, migration costs are high when migration levels are low, a low-migration equilibrium can persist indefinitely despite large wage gaps between the sending and destination regions. But once a migration flow has begun, it can quickly shift from a trickle to a flood – even if the underlying economic conditions change very little – as the migration cost falls with each new arrival. According to this framework, despite years of low wages and political oppression in the South, black migration to the North still awaited a catalyst to get off the ground.\textsuperscript{19}

The decade of the 1910s offered just such a catalyst in the form of a “triple shock” composed of: (1) heightened demand for low-skilled labor in northern factories during World War I; (2) a sharp decline in the usual source of northern labor supply, newly-arrived immigrants from Europe, following a wartime disruption in shipping; and (3) bad harvests and falling labor

\textsuperscript{18} Economists describe this outcome – namely, racial differences in on-the-job treatment based on employers’ beliefs about average group attributes – as “statistical discrimination” (Phelps, 1972; Arrow, 1973). By this logic, northern employers refused to hire black workers before the war not because they had a distaste for interacting with blacks \textit{per se} (“taste-based discrimination”) but because they held (erroneous) beliefs that blacks were unproductive workers. As employers encounter more black workers, they may learn that black workers are not lazy and revise their beliefs accordingly.

\textsuperscript{19} An alternative model that has been proposed to explain the delay in black out-migration from the South hinges on changes in points of reference across cohorts. The generation of blacks born in slavery may have been satisfied with southern freedom (Kusmer, 1976, p. 158). Out-migration would then await a cohort born into freedom who would have been unsatisfied with the low wages in the South. By this logic, migration could have begun as early as 1895 when the 1870 birth cohort would have been ready to migrate.
demand in southern agriculture resulting from the spread of the boll weevil, a cotton pest. The remainder of this section discusses each of these factors in turn.

Military orders for vehicles, armaments and other supplies kept northern factories running at full capacity during the war years, generating a burst of labor demand. Manufacturing employment, already growing rapidly in the early twentieth century, rose above trend from 1915 through 1920, leading to the (temporary) creation of two million new positions. Many of these jobs had minimal skill requirements; in 1920, for example, a quarter of men employed in the manufacturing sector worked as a common laborer, an entry-level position that required no more than a small amount of on-the-job training. In theory, black migrants with low levels of education and limited experience in the industrial sector could thus qualify for these positions.

In peace time, new jobs in northern factories were often filled by recent foreign arrivals. As early as the 1850s, Frederick Douglass commented on the competition between black and immigrant workers, lamenting that “the black man [is] elbowed out of employment by some newly arrived immigrant whose hunger and whose color are thought to give him a better title to the place.” But as the war disrupted trans-Atlantic shipping lanes, the migration flow from Europe to the US dropped from 1.2 million annual entrants to only 100,000 arrivals per year. Collins (1997) estimates that the loss of one million European immigrants during World War I encouraged 100,000 southern blacks to move north.

The last of the three shocks that contributed to the takeoff of black migration to the North was a decline in labor demand in southern agriculture due to the spread of the boll weevil. The boll weevil, a long-nosed beetle that destroyed up to 50 percent of the cotton crop in areas that it

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20 I plotted annual manufacturing employment from 1900 to 1940 net of an annual time trend (Lebergott, Historical Statistics). Manufacturing employment exceeded its trend by 2 million jobs by 1919 and had returned to trend by 1921. I attribute this excess demand to the war.

21 Frederick Douglass, Selected Speeches and Writings, edited by Philip S. Foner. p. 256.
invaded, marched through the South in the first decades of the twentieth century (Lange, Olmstead and Rhode, 2009). As cotton yields fell, it became harder to scratch out a living in the South, thereby heightening the lure of the North, especially among sharecroppers and other agricultural workers.

Despite the temporal link between the spread of the boll weevil and the rise of black migration, early scholarship on the topic found little relationship between (state-level) weevil infestation rates and black out-migration rates (Higgs, 1976). One explanation for this null result, advanced by Wright (1986), is that the South had a near monopoly on cotton production; in this case, even if cotton output fell as the weevil advanced, cotton prices would rise accordingly, thereby partially offsetting the effect of the decline in cotton productivity with a rise in agricultural income.

In more recent work, Lange, Olmstead and Rhode (2009) have reasserted the role of the weevil infestation in precipitating black migration to the North. The authors contend that the state-level aggregates in Higgs’ original study obscure within-state variation in the intensity of the infestation. By exploiting disaggregated data, they show that cotton-producing counties experienced a 30 percent decline in population in the years immediately following the weevil’s arrival, an indication of large out-migration flows. Even if the South as a whole faced little change in agricultural income as a result of the weevil, the pest produced winners and losers; some farmers lost an entire year’s crop and left the region, while others benefited from the rising cotton prices associated with the lower yields on other farmers’ plots.

The “triple shock” did not last for long. As World War I drew to an end, labor demand in northern factories reverted to previous levels and European migration resumed (at least until the immigration quotas of 1924 placed enduring restrictions on foreign arrivals). Southern planters
began adapting to the boll weevil, first by shifting to earlier-maturing cotton varieties and eventually through the development and application of new poisons. Yet, the combination of high labor demand in northern industry, a reduction in typical labor supply to northern cities, and falling labor demand on southern farms was a large enough catalyst to set black migration in motion for the next fifty years.

The Rise and Fall of Black Migration in the 20th Century: One Big Wave

In 1910, fifty years after the Civil War, 8.9 million blacks, or nearly 90 percent of the African American population, still resided in the South. Following decades of delay, black out-migration from the South accelerated rapidly once it began. This section presents modified estimates of the black migration flow to and from the South by decade using Census sources. For this exercise, I build on recent work by Gregory (2005). My new estimates of black migration flows demonstrate that the typical distinction drawn between the “first” and “second” wave of the Great Black Migration is misleading. I argue instead that the migration follows “one big wave”: beginning slowly in 1900s, accelerating after World War I, peaking in the 1940s and 1950s, and then decelerating and eventually reversing by the 1980s. The section starts with a description of the methodology used to infer internal migrations from Census sources. I then discuss the definitions of racial and regional categories employed through the book. After these preliminaries, I present the new estimates of black migration flows by decade.

Although foreign in- and out-migration has been carefully tallied at the US border as far back as 1790, there are few records kept – even today – of internal migration between US states or regions. In the 1950s, demographers pioneered methods for estimating rates of internal migration from published Census material (Kuznets, Thomas and Lee, 1957). These scholars
proposed a technique known as the forward survival method to estimate gross internal migration into or out of a location (say, a state). Implementing the method begins by subdividing the population of a state into groups by birth year, gender and race. One would then count the number of residents in the state by group in two adjacent Census years. If the number of residents in a particular group decreases over the period, the decline can be attributed either to mortality or to out-migration. To isolate the contribution of migration, one must determine the likely size of the population due to mortality alone. Demographers typically use the national mortality rate (by age, race and gender) due to a lack of historical state-specific mortality rates. After accounting for the implied number of deaths, any difference in group size in the two time periods can be attributed to migration.

This method can be illustrated by considering the case of black migration from Mississippi between 1910 and 1920. To estimate the number of black departures from the state, one would start by counting the number of black men in various age groups in both years. One such age group is men born in the 1880s. These men would be in their twenties in 1910 and then in their thirties in 1920. If there were 1000 men in this group in 1910, a national decadal mortality rate of 10 percent would suggest that, absent any in- or out-migration, the group size would shrink to 900 by 1920. If, instead, the group dwindled to 800, we can infer that 100 residents of this age left the state. One would then apply the same technique to men of different ages and to cohorts of women. Adding across these demographic groups would reveal the total black out-migration flow from Mississippi in the 1910s.

Although the forward survival method provides a reasonable count of the number of migrants entering (or departing) each area by decade, it does not record the source areas from which these migrants arrived or the destinations in which they settled. An accurate count of the
number of black migrants leaving the South requires knowledge of migrants’ ultimate destination so that intra-regional moves can be omitted. For example, many of the black migrants leaving Mississippi simply relocated to Alabama or Louisiana and thus did not represent a net loss of black residents from the South. Gregory (2005) extends the original Census survival method to count the number of migrants leaving one region and resettling in another. In particular, Gregory uses Census micro-data to redefine demographic groups according to birth year, sex, race and region of birth, a level of detail that is not available in the published Census sources. One is then able to count the number of black men or women by birth cohort who were born in the South and now reside in the North or West in two periods. Any change in the size of these groups is an indication of further out-migration from the South.

I make two further technical adjustments to Gregory’s method for estimating the black migrant flow out of the South. First, I address the problem of missing data on state of birth in the 1960 and 1970 Census micro-data samples. Secondly, I correct the mortality rate data used to infer migration rates in the decades between the 1960 and 2000 Census years.\footnote{In 1960 and 1970, five percent of the individual Census records are missing information on state of birth. Gregory drops these observations, thereby understating migration in the 1960s. I instead impute a state of birth for these individuals according to their region of residence, race and age under the assumption that individuals with missing data have same pattern as individuals who reported place of birth. Gregory estimates of black mortality rates from 1970 to 2000 are higher than the rates reported in the national vital statistics records. As a result, he overstates new migration to account for those he assumes to have died.} From 1900 to 1960, my counts of black in- and out-migration are nearly equivalent to Gregory’s, while, from 1960 to 2000, the two adjustments cause our figures to differ by 30 to 40 percent. Yet despite these discrepancies, the major trends in our migration figures are quite similar. One difference of note is that my series predicts a decline in migration from the 1960s to the 1970s (rather than an
increase), a pattern that matches contemporary demographic analyses noting a slowing of black out-migration from the South in the late 1960s (e.g., Long and Hansen, 1975).

I turn now to a discussion of the racial and regional categories underlying these migration estimates, which, like most of the analyses in the book, rely on Census materials. The race variable has been recorded by enumerators or reported by individual respondents in the Census since 1850. In 1910, the population was divided into six racial categories: White, Black/Negro, American Indian, Chinese, Japanese, and Other Asian or Pacific Islander. The Census added a seventh “Other Race” option to this list in 1940. The Other Race category was rarely used until 1980, when the rising number of Hispanics, many of whom self-identify as neither white nor black, adopted this appellation. The Census first allowed individuals to select more than one racial label in 2000.

My migration estimates divide the population into two groups – ‘Black’ and ‘Non-Black’ – throughout the century. In the southern context, Non-Black is nearly synonymous with White. In 1910, Census enumerators coded only 0.3 percent of the population in the South as a race other than White or Black. By 2000, the South was still predominately divided between these two races; 1.6 percent of the southern population in that year identified with an Asian race and 3.9 percent, the vast majority of whom were Hispanic, checked the Other Race category. Only 2.6 percent of southern residents who selected Black for at least one of their races in the year 2000 also reported being another race. I group all multi-race individuals who report being Black and another race into the ‘Black’ category in 2000. Given the history of sharp racial barriers in

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23 Until 1960, enumerator was responsible for categorizing an individual’s race. Race is now reported by the household head. In 1990 and 2000, the head is specifically asked to report the race that each individual “considers him/herself to be.”
the South, it is likely that these multi-race individuals would have reported themselves as Black before the survey change.

The proper boundaries of the South are nearly as fraught as the definitions of racial groups. Most scholars agree that the 11 states of the former Confederacy belong in the southern region. Disagreement usually arises over how to classify the Border States – Missouri, Kentucky, Delaware and Maryland – and where to place Oklahoma, which entered the union in 1907, long after the abolition of slavery. Throughout the book, I define the South as the 11 (+1) states of the Confederacy, along with Oklahoma and Kentucky. Given that it separated from Virginia during the Civil War, I consider West Virginia to be the “plus one” in the list of Confederate states.

One approach to classifying the Border States is to follow the Census definition of the three southern regions, the South Atlantic, the East South Central and the West South Central. This Census-based definition includes all of the marginal states in the South proper, with the exception of Missouri. I instead rely on the migration history of these states to classify them as either ‘southern’ or ‘non-southern.’ The South as a whole lost a substantial share of its black population between 1900 and 1970. Because Kentucky and Oklahoma also lost black population over the period, I consider these states to be ‘southern.’ By the same token, cities in Missouri, Delaware and Maryland (St. Louis, Baltimore and, to a lesser extent, Wilmington) were all major

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24 The states that make up the former confederacy include the South Atlantic seaboard states of Virginia, the Carolinas (North and South), Georgia and Florida; the new cotton growing regions of Alabama, Mississippi, Louisiana and Texas; and the mountainous states of Arkansas and Tennessee.
destinations of black migration and, as a whole, these states were net receiving areas for black migration over this period. Therefore, I group these Border States with the ‘non-South.’

With these racial and regional categories now in place, I turn to the new migration estimates, which are presented in Figure 3. Figure 3a reports the total number of southern blacks leaving the South for the North and West by decade, along with the total number of non-southern blacks moving to the South; these are considered ‘gross’ migration flows. Figure 3b contains figures for the ‘net’ migration flow, or the number of blacks leaving the South minus the number of blacks arriving into the South in every decade. In both figures, an inverted U-shaped pattern is apparent, with migration rising from 1900 to the peak in the 1940s, and then falling in every subsequent decade.

In quantitative terms, the Great Black Migration was “one of the most significant demographic events to occur in the United States during the twentieth century” (Tolnay, 2003, p. 210). The size of a migration flow can be judged either by the absolute number of migrants who participate in the process or by the out-migration rate – that is, the number of migrants as a share of the total population in the sending region. Both of these measures provide useful information about the social and economic impact of the migration. From the perspective of residents of a destination area (say, the city of Chicago), the absolute number of migrant arrivals may be the more important figure, given that each new arrival will take part in the local economy as a worker, customer or tenant. However, the migration rate provides a better measure of the intensity of the desire to leave a sending area.

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25 Kirby (p. 287) follows a similar method of defining the South by its migration history. Kirby excludes Maryland, Delaware and Florida from the South because they were net population-receiving states in the mid-twentieth century. I classify Florida as southern because, even though it did receive large population inflows, it was still a net exporter of black population.
In absolute numbers, 1.4 million blacks left the South in the peak decade of the migration (the 1940s). By this metric, black migration from the South is comparable in magnitude to the decadal inflows from European sending countries during the Age of Mass Migration. Indeed, Italy is the only country that sent a larger absolute number of migrants in a single decade; 1.8 million Italian migrants moved to the United States in the decade of the 1900s. If, instead, we gauge the intensity of the black migration using the out-migration rate, consider that 14.5 percent of blacks living in the South in 1940 left the region over the next decade (1.4 million/9.5 million). This out-migration rate is equivalent to the share of the 8.1 million Irish enumerated in the 1841 Census who migrated to the United States in the decade following the Great Famine (1845-54).

The beginning of the Great Black Migration is typically dated to the 1910s. In that decade, I estimate that 200,000 blacks left the South. The black out-migration rate quadrupled to 800,000 departures by the 1920s. Together, the years 1915 to 1930 are typically referred to as the “first wave” of the black migration. Much of the existing scholarship on black migration focuses on this so-called “first wave,” presumably because of its novelty, especially from the perspective of northerners who would have encountered few black residents in their cities before 1915. Black out-migration from the South slowed in the 1930s, when only 350,000 migrants made the journey northward. Low migration rates in this period were not specific to the black experience;

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26 Another interesting parallel is with white migration from the South. Over 18 million white migrants left the South over the twentieth century, more than twice the absolute number of total black out-migrants. Blacks and whites had similar out-migration rate from South: for blacks, 7.5 million departures over twentieth century from base of 8.9 million in 1910 and, for whites, 18 million departures from base of 20.5 million. Yet Gregory (2005) points out that the white return migration to the South was three to four times higher than comparable black return migration, which suggests that whites faced a lower “southern penalty,” either economic or social/political terms (p. 16-17).

27 The total out-migration rate from Ireland during the hunger decade, including migration to England, Canada and Australia, was closer to 20 percent (Hatton and Williamson, 2004, p. 33).
indeed, overall mobility in the US was at its nadir in the Depression decade.\textsuperscript{28} The Depression lull was followed by the high migration flows of the 1940s, 1950s and 1960s. Around one million blacks left the South in each of these decades. Migration during and after World War II is often described as the “second wave” of the Great Black Migration, implying that the migrants of the 1940s were responding to contemporary economic conditions (such as the renewed labor demand during the war) and were loosely connected to the migration process already underway. Migration then decelerated after 1970. By the 1980s, a sizeable inflow of northern-born blacks began moving to the South, along with the general national gravitation to rising Sunbelt cities, leading to a net migration-induced increase in blacks living in the South.

Rather than subdividing the black migration into two discrete “waves,” I would like to suggest that black out-migration from the South occurred in a single wave, rising from 1915 to 1940, remaining high until 1970, and then declining to the year 2000. In this view, the decade of the 1930s is an anomaly in an otherwise continuous migration process. The inverted-U shape of the black migration flow mirrors the out-migration from many European countries to the United States and, as such, has been identified by Hatton and Williamson (2004) as a common feature of mass migration. Furthermore, this aggregate migration pattern, taking place in one big wave, is consistent with an underlying model of the individual motivations for leaving the South.

In particular, the inverted-U shape can arise from a model of dynamic migration costs, as described in the previous section, coupled with the general equilibrium effect of migration on wage rates in the sending and destination areas. In the first stage of the migration process, little

\textsuperscript{28} One metric of mobility is the probability of moving within past five years, as reported by Census respondents. Only 7.5 percent of 30-39 year olds report moving between 1935 and 1940, compared to the 11 to 13 percent who moved between 1955-60 or 1965-70 (Rosenbloom and Sundstrom, 2003). The implied decline in national mobility rates (35 percent) is equivalent to the observed decline in black out-migration from South in the 1930s.
migration occurs despite a large wage gap between the source and destination regions because the cost of being the first migrant in a destination is prohibitively high. After some catalyst sets the migration process into motion, migration takes off at a rapid pace. The peak of the inverted-U shape is reached as the growth of a migrant network sufficiently lowers migration costs and new migrants rush to take advantage of higher wages in the destination economy. Finally, when the migration flow out of the home region gets large enough, the decline in labor supply causes wages in the source economy to rise. As wages between the two regions converge, the benefit of migration is dampened and the migrant flow begins to slacken, thereby generating the downward half of the inverted-U shape. Wage convergence between the North and the South is discussed in more detail in chapter X.

A Micro-economic Approach to the Great Black Migration

The inverted U-shaped pattern of black migration over the twentieth century raises a series of questions about why the migration flow began, peaked and ultimately reversed. The last section of the chapter will analyze the factors contributing to the acceleration and decline of black out-migration at mid-century. However, before delving into these empirical relationships, a discussion is in order about the conceptual models that have been used in the social sciences to understand migration activity and how these models have been applied to the case of the Great Black Migration. The earliest work on the black migration in the 1910s and 1920s described the population flow as the inevitable response to powerful historical forces. Contemporary historians take issue with this deterministic view and instead attempt to place the individual migrant back at the center of the story. In this focus on the individual, modern economists and historians are united; what may divide these disciplines is their underlying models of individual decision
making. Economists rely on the heuristic device of the “rational” individual; I will review this method and its most common critiques below.

Scholarship on the causes of the black migration arose alongside the migration itself. In the 1920s, many contemporary observers documented and analyzed the nascent black migration flows from the South (see, for example, Woodson, 2002 (ori. pub. 1918); Scott, 1969 (ori. pub. 1919); Johnson, 1924). Much in keeping with the intellectual trends in the emerging field of sociology at the time, these authors imagined a mechanistic relationship between an individual and his environment (XX). In this view, migration was the inevitable result of the lure of northern wages and the deteriorating economic conditions in the South. The role of individual decision making, let alone the idiosyncrasies, tastes and perceptions of individual migrants, were subsumed to these larger forces of history.

Contemporary historians reproach the first generation of scholarship, and rightly so, for its disregard for the motives of individual migrants. Gregory (2005), for example, questions the pervasive use of “water metaphors” in this early writing, according to which migration from a low wage to a high wage place is seen as inexorable as water running downhill. Individuals, if they are mentioned at all by these authors, are depicted as indistinct water droplets in a mighty migration stream. Recent historical studies have reinstated the individual at the center of the migration process, privileging questions such as: How did migrants – as individuals, as families or as networks – shape their own migration experience? Phillips (1999), for example, argues that black migrants understood their own mobility to the North in the context of their southern values of self-determination and caring for kin. Trotter (1991) aptly summarizes this intellectual shift as a rejection of the idea that migrants are “passive victims pushed and pulled in a drama beyond their control” (p. xi). Rather, migrants exercised agency and ingenuity in their own relocation,
stealing away from unfair sharecropping arrangements, sending for their own family once they were settled in the North, and spreading information about job opportunities in their new cities.

These criticisms of early scholarship on the black migration are well-taken; however, it would be a mistake to form opinions about the “economic” or “social scientific” approach to migration on the basis of these early writings. I would argue that, much like in modern historical analysis, contemporary economic studies of immigration also start at the individual (or “micro”) level, first analyzing individual or household motivations for moving or staying put, and only then aggregating up the outcomes of this individual analysis to the population (or “macro”) level. However, because individual decisions are always made under a budget constraint, migrants are strongly influenced by broader economic forces that alter prices relevant to the benefits or costs of relocation, such as the price of labor (the wage) in the destination or the source area and the price of transportation.

The modeling of the individual decision to migrate can be traced back at least to Sjaastad (1962), whose dissertation at the University of Chicago was influenced by the nascent concept of “human capital.” Sjaastad argued that one should conceive of the decision to migrate from a low wage to a high wage area in much the same way as one would model other investments that individuals make in their own productivity, such as studying for a college degree. “Migration,” he writes, should be considered “an investment…which has costs and which also renders returns” to the individual (p. 83). He explicitly contrasts this new approach with an earlier focus on the “forces which affect migration,” which ignore the process of individual decision making (p. 80).

The most immediate cost of making the northward trip would have been the price of a train ticket or the cost of car travel. More indirectly, migrants needed to consider the lost work
time during the move itself and while searching for a job in the North. Altogether, migrants may have lost a few weeks of earnings while travelling to and acclimating to the North. Furthermore, migrants faced the psychic costs of leaving a familiar environment and losing their established social networks in the South.\footnote{Add evidence about price of a train ticket and about length of trip and average number of days/weeks to find work (XX)}

Balanced against these costs, the main benefit of moving North was the possibility of earning higher wages in an industrial city. A portion of this wage gain occurred through occupational upgrading. Many southern migrants left low-paid occupations in agricultural labor to enter better-paid factory operative positions. Migrants could also realize wage gains without switching occupations. Because wages in almost every occupation were higher in the North than in the South, a prospective migrant working as, say, a janitor in a southern city could expect to earn a higher wage by moving North even if he remained in janitorial work.

Many southern blacks who made the journey North settled permanently in their new destination. Therefore, when deciding whether or not to move, prospective migrants would have balanced a lifetime stream of higher earnings, discounting the future in some fashion, against the immediate costs of travel and foregone earnings and the longer-run costs of weakening family ties. Of course, of interest to prospective migrants was the possibility of garnering greater purchasing power in the North, not of earning higher nominal wages \textit{per se}. If the higher nominal wage in the North had been entirely counterbalanced by higher prices for essential goods, prospective migrants would have been no better off in the North than in the South.

Migrants also enjoyed some non-pecuniary benefits from their move, including the varied amusements of the big city and the social and political freedoms, however imperfect, available to
black residents outside of the South.³⁰ Moreover, many migrants considered the benefits to their children of moving North, including access to higher quality schools and better job opportunities.³¹

As this short review of the “human capital” framework suggests, the economic and historical approaches are united in their placement of the individual at the center of the migration story; instead, their differences lie in the assumptions about how individuals make their decisions. The economic model of migration, as is standard in economic models of many human endeavors, starts with the concept of a rational individual who, in this case, compares the stream of possible benefits in two (or more) locations and moves only if the potential benefit outweigh the costs.

The power of this analytic framework lies in the concept of revealed preference, which holds that an individual’s choice between two actions reveal information about the underlying costs and benefits of each. In this case, simply by observing the choices of various individuals (or households) who decide to stay in their current location or to move elsewhere, one can learn about the demographic and environmental factors that increase the propensity to migrate. For example, let’s say we observe two otherwise identical black men, one living in Memphis, TN and the other in Washington County, MS in the Mississippi Delta in 1940. If the Memphis resident decides to stay in Memphis until 1950, while the Mississippian decides to leave, we can

³⁰ Baldwin (2007) argues that “part of migrants’… motivation to move [North] included participation in commercialized leisure,” which included black-owned clubs, jazz and blues broadcasts on “race radio,” and other forms of entertainment (p. 39. As Baldwin points out, similar entertainment zones existed in southern cities as well.
³¹ Scott (1919a, 1919b) collects a series of letters written by prospective southern black migrants to northern employers and others who advertised in the Chicago Defender. Only seventeen of the few hundred collected letters identify better schools in the North as a motivation for migration and, of these, most of them mention education briefly, adding a sentence like “i want some places to send my children to school” (Scott, 1919b, p. 432).
infer that some aspect of Washington County either raised the benefit of migration or lowered its
cost. According to the simple model, both men used the same framework to make their decisions,
each comparing his current location to all potential destinations net of the costs of moving.
Because the Tennessean chose to stay put, we can conclude that his current location (Memphis)
is preferable to the alternatives; at the same time, because the Mississippian chose to leave, we
can likewise conclude that his current location (Washington County) is inferior to the
alternatives.

Of course, with only two men in two places, we cannot pin down exactly what attributes
of Washington County make it inferior to these northern destinations. Compared to Memphis,
Washington County may have offered lower wages, fewer job opportunities, a stronger local
climate of race-based violence and intimidation, and so on, and it would be impossible to
determine which of these factors contributed to the difference in migration behavior. However,
with a much larger sample of thousands of men living in one of the over 1,000 counties in the US
South, these local conditions, among others, can be ruled in (or ruled out) as important factors in
the individual decisions to migrate.

The economic model of migration, which is based on the abstraction of a “rational
individual,” is subject to a series of common critiques. First, in order to decide where to locate,
prospective migrants need to have good information about the relative benefits of various
locations and about the costs of migration. How, it is often wondered, could prospective black
migrants in the early twentieth century have had accurate information about the wage rates and
job opportunities available to them in the North? Indeed, the first black migrants had only the
sketchiest view of northern economic conditions. But, as the migration continued, the first
generation of migrants sent detailed descriptions of the available wage offers and job openings to
friends and family in the South, thereby reducing the information gap. Even with today’s communication technology, no prospective migrant will have perfect information about the labor market in their potential destination. Yet migrants are able to acquire information at some cost—say, by spending time scanning newspaper ads or corresponding with friends already living in the area—and then will make the best possible decision given the information at hand.

Secondly, while migrants may have some information about typical wage offers in the destination economy, they cannot be certain of finding work at that pay upon arrival. In other words, the typical wage may not apply to an individual’s specific circumstance. Economists address this issue by modeling the benefits of migration as a set of possible outcomes, each with some probability of taking place (Harris and Todaro, 1970). Prospective migrants expect that, by moving north, they have some probability of finding a high-paying job but also face some probability of being unemployed. In 1940, for example, as the nation was pulling out of the Depression, black men in Chicago suffered the high unemployment rate of 17 percent. Migrants in that year may have implicitly assumed that their own probability of unemployment matched the city-wide average for workers in their demographic group or may have recognized that, as newcomers, their own probability of unemployment was likely to be even higher. In general, the expected benefit of migration is a weighted average of high wages multiplied by the probability of employment plus a much lower wage multiplied by the probability of being unemployed.

A third critique of the economic approach to migration is the concern that the simple economic model ignores differences in the costs and benefits of migration across individuals. In other words, the basic economic model tells the story of one prospective migrant who is supposed to stand in for the multitude—one individual cipher—when in fact there were 9 million black southerners, all with their own reasons to leave or to stay. Some southerners, for example,
were closely tied to their family and kin networks, while others were particularly drawn to the bright lights of the big city.

Were it accurate, this critique would be a powerful one. Indeed, an economic model of migration based on a single agent would generate absurdly stark predictions. For example, such a model would suggest that, once the benefits to migration reached a certain threshold, all black residents would leave the South at once. As a result, economists account for variation in individual motivations by modeling a distribution of migration costs and benefits across the population. Adding a distribution of costs and benefits to the model generates new predictions; for example, those individuals with the highest net benefit to migration should be the first to move. Some of the variation in costs and benefits will be idiosyncratic; for example, George Starling, whose story is profiled in Wilkerson (2011), ran afoul of the company while trying to organize an orange grove in Florida and thus had a particularly strong desire to hop a train north. But some of the variation in costs and benefits will instead be systematic, associated with factors like age, gender, educational attainment, previous occupation, and so on. For example, because blacks earned a very low return to education in the southern labor market, blacks with a high school degree often had more to gain by moving North than did blacks with only an eighth-grade education. Systematic variation in the benefit of moving North generates predictions about which subgroups within the black population are most expected to migrate. I will discuss related evidence on the direction of migrant selection in the Great Black Migration in chapter X.

**Explaining Variation in Black Migration in its Peak Years, 1940 to 1970**

Earlier, I attribute the advent of mass black migration from the South circa 1915 to the “triple shock” of plentiful wartime jobs in northern factories, a temporary freeze on out-migration from Europe, and poor cotton harvests in the South. Once the migration began, what
forces can explain the particularly high black out-migration rates in the 1940s and 1950s? Why does the migration begin to fade in the 1960s? Answers to these questions vary across states and even across locations within states.

- Migration during World War II and the subsequent decades was driven both by the pull of economic opportunities in the North and by a push from southern agriculture.
- Blacks left the South in greater numbers as mechanization increasingly replaced hand labor, leading to a relative decline in agricultural wages. Mechanization occurred in different southern crops at different times.
- In particular, high out-migration from cotton counties occurred in the 1940s, with the automation of the planting and weeding stages of cotton cultivation, and again in the 1960s, when a viable cotton harvester diffused throughout the South (Grove and Heinicke, 2003; XX). In contrast, agricultural counties in tobacco-growing states, which were slow to mechanize, experienced large black out-flows only in the 1960s (Wright, 1986).
- Explain Table 2. Present underlying regression equation. Outcome is migration rate per 100 in sending county. Explanatory variables = share of land planted in cotton; share of labor force in agriculture (in tobacco states); farm tenancy rate. On industrial side: World War II era factories; mining and oil/gas. Separate models run for 1940s, 50s, 60s.
- Table 2 shows the mean migration rate in each decade and the implied change in migration rate for one standard deviation change in each variable. What share of overall outflow in each decade can be explained by these southern factors? Was the migration in 1940s more responsive to northern pulls while the migration in the 1950s was more responsive to southern pushes? How much variation in black out-flows across states is predicted by the model?
- Add a measure of race relations in the county (the share of voters who supported Strom Thurmond in the 1948 election).
- A related analysis to discuss: Variation in the intensity of local racial violence was an important determinant of out-migration in the 1910s and 1920s. Tolnay and Beck (1995) find a strong relationship between number of lynching victims in a county and net black out-migration.32 By their estimate, one lynching event leads one in every 100 black

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32 The quantitative evidence linking lynchings to out-migration is consistent with migrants’ own recollections of their reasons for moving North. Although low pay and a lack of work in the South are the most commonly cited motives, the climate of fear is also a pervasive theme. This older woman interviewed in Newark, NJ in the 1970s, recalling her departure from the South fifty years earlier, is typical: “The white folks was so mean to us there. If my boy done something they didn’t like, they’d kill him and me too – all of us, you know. They’d blame you because you race bein’ black. They’d catch him and hang ‘em up on a tree… I didn’t come North lookin’ for flower beds, but I did come here not wanting my children to be killed like they was bein’ killed down there” (Faulkner, et al., 1982, p. 22). See also Wilkerson (2011, p. 36-46).
residents to leave the county. In the 1910s, the typical southern county experienced 0.5 lynching episodes. Thus, for the 9 million blacks living in the South, mob violence alone would have generated 45,000 migrants (=9 million * 0.5 victims per county * 0.01 additional migrants). If all of these out-migrants settled in the North (rather than moving within the South to more tolerant county), lynchings alone could explain 10 percent of the black South-to-North migration flow in the 1910s.

Conclusion

< To be added >

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33 Tolnay and Beck’s estimate is derived from a simultaneous equation model whereby lynchings can encourage migration but out-migration can also affect the number of lynchings. Excluded variables from the first equation are used as instruments for the key endogenous variable in the second equation, and vice versa, leading to questionable exclusion restrictions.
Table 1: Regional Distribution of the Population by Race and Nativity, 1900 to 1970

<table>
<thead>
<tr>
<th></th>
<th>White, native-born</th>
<th>White, foreign-born</th>
<th>Black</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>1900</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Northeast</td>
<td>30.4</td>
<td>48.1</td>
<td>7.4</td>
</tr>
<tr>
<td>Midwest</td>
<td>38.3</td>
<td>41.0</td>
<td>5.5</td>
</tr>
<tr>
<td>South</td>
<td>26.4</td>
<td>4.4</td>
<td>86.8</td>
</tr>
<tr>
<td>West</td>
<td>4.9</td>
<td>6.5</td>
<td>0.3</td>
</tr>
<tr>
<td><strong>1940</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Northeast</td>
<td>29.7</td>
<td>54.4</td>
<td>13.0</td>
</tr>
<tr>
<td>Midwest</td>
<td>33.1</td>
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<td>South</td>
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<td>5.8</td>
<td>75.0</td>
</tr>
<tr>
<td>West</td>
<td>9.3</td>
<td>10.4</td>
<td>1.3</td>
</tr>
<tr>
<td><strong>1970</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Northeast</td>
<td>28.3</td>
<td>47.1</td>
<td>23.5</td>
</tr>
<tr>
<td>Midwest</td>
<td>29.6</td>
<td>19.4</td>
<td>21.1</td>
</tr>
<tr>
<td>South</td>
<td>25.6</td>
<td>13.1</td>
<td>47.6</td>
</tr>
<tr>
<td>West</td>
<td>16.5</td>
<td>20.4</td>
<td>7.7</td>
</tr>
</tbody>
</table>

Note: The black share of the total population ranges between 10 and 12 percent in every year. The white foreign-born share falls from 13.6 percent in 1900 to 5.3 percent in 1970, made up by an increase in the white, native-born share. A residual “other” category (non-white, non-black) is less than 1.5 percent of the population in all years.
Table 2: Implied effect of county-level economic conditions on black out-migration rates, 1940 to 1970

<table>
<thead>
<tr>
<th>Effect of one standard deviation change in southern county-level variable</th>
<th>1940s</th>
<th>1950s</th>
<th>1960s</th>
</tr>
</thead>
<tbody>
<tr>
<td>Share land in cotton</td>
<td>-25.24</td>
<td>-3.84</td>
<td>-19.80</td>
</tr>
<tr>
<td>Share LF in agriculture (tobacco state)</td>
<td>-4.11</td>
<td>7.58</td>
<td>-12.92</td>
</tr>
<tr>
<td>Share farm operators as tenants</td>
<td>-14.29</td>
<td>-4.45</td>
<td>-14.86</td>
</tr>
<tr>
<td>Defense spending per capita, 1940-45</td>
<td>11.86</td>
<td>1.28</td>
<td>1.62</td>
</tr>
<tr>
<td>Share LF in mining (oil state)</td>
<td>12.16</td>
<td>15.09</td>
<td>-4.98</td>
</tr>
</tbody>
</table>

Note: This is a draft of the table. See associated section of the chapter which is in bullet point form.
Figure 1: Share of southern-born living outside state of birth by cohort and race

Notes: Each dot represents the predicted lifetime migration rate for a 30-year old individual in a given migration cohort according to equation (1) in the text. Migration cohorts are defined as birth cohorts plus thirty years. The sample is restricted to individuals who were born in the South.
Figure 2: Share moving within or between states from 1935 to 1940 by race, occupation and ownership status

Notes: Sample restricted to men living in the South in 1940 who were between the ages of 18 and 90 and who did not live abroad or in an unknown location five years ago. Farm owners (tenants) are men who report their occupation as ‘farmer’ and who live on a farm that they do (do not) own. Farm laborers report their occupation as ‘farm laborer, wage worker’ but need not reside on a farm.
Figure 3: Estimated number of black migrants to and from the South by decade

3a. Gross migration flows

3b. Net migration flows

Notes: XX