

# Competitors and Consumers: The Impact of the Great Migration on Employment Outcomes of Black Northerners \*

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## Abstract

Prior to the Great Migration, there were small communities of middle-class blacks living in the North. While research has investigated the importance of migration improving the fortunes of southern-born blacks, less is known about the impact of the Great Migration on existing black communities. I build a new panel dataset of black northerners to study how the arrival of new black residents shaped their economic fortunes. I exploit variation in the extent of in-migration across northern counties and instrument for black inflows by interacting pre-existing demographic patterns in the South with earlier black settlement patterns in the North. I find that in-migration resulted in significantly less employment but better occupational attainment for black northerners in 1930. The evidence shows that the effect of southern black in-migration on northern-born black outcomes is nuanced: low status northern-born blacks experienced more competition in the labor market, while high status northern-born blacks benefited more from occupational upgrading opportunities generated by in-migration. (JEL J15, J21, N32, R23)

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*“Its imprint is everywhere in urban life. The configuration of the cities as we know them, the social geography of black and white neighborhoods, the spread of the housing projects as well as the rise of a well-scrubbed black middle class, along with the alternating waves of white flight and suburbanization - all of these grew, directly or indirectly, from the response of everyone touched by the Great Migration.”*

*-Isabel Wilkerson, The Warmth of Other Suns*

## 1 Introduction

Scholarship tends to view the Great Migration, a movement of approximately 6 million blacks from the agricultural South to the industrial North, as the key mechanism in black economic progress over the twentieth century (e.g., Margo 1995; Smith and Welch 1989; Farley and Allen 1987). Compared to their southern counterparts, blacks in the North were economically and socially better-off at the turn of the century, and some even achieved middle-class status (see Figure 1). For example, in 1910 the median annual earning for southern blacks was \$235, 62 percent less than their white southern counterparts, while the comparable earnings disadvantage for northern blacks, whose median annual earning was \$633, was only 37 percent.<sup>1</sup> Thus poor southern blacks could obtain significant economic returns by migrating north. Though economists have made recent advancements in understanding the importance of the Great Migration on southern-born blacks (e.g., Alexander et al. 2017; Collins and Wanamaker 2017; Collins and Wanamaker 2014), the economic experience of black northerners, who had longstanding roots in the North, with respect to the significantly increased local black populations, remains largely unexplored.<sup>2</sup>

Between 1910 and 1930, the number of black workers in the North almost tripled.<sup>3</sup> The

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<sup>1</sup>The earnings disadvantage is measured as the difference in the median occupational earnings score between blacks and whites using the 1910 complete-count census data.

<sup>2</sup>Several papers explore competition between first and second waves southern blacks in the postwar period, e.g., Deroncourt 2018; Boustan 2009. However, the first and second waves southern blacks are more similar to each other and this paper will specifically look at blacks who already lived in the North and who see themselves as a distinct group.

<sup>3</sup>Calculation is based on counting the black population aged 10 and above in the northern labor force for both census years (Ruggles et al. 2017).

anticipated effect of such a large inflow of migrants on black northerners' employment outcomes is theoretically ambiguous. On the one hand, if black workers from any region are seen as substitutes in the labor market, migration would act as a supply shock, decreasing wages or employment of northerners. Labor market crowding could have also reinforced the traditional racial norms and inflamed already existing racial tensions, further disadvantaging northern black workers. On the other hand, the inflow of southern blacks could have created a new demand for black-owned establishments and so northern blacks, who had more wealth than southern blacks, might have responded to this demand by becoming more entrepreneurial, ultimately increasing their occupational standing. This paper finds support for both impacts.

A natural strategy for studying the effect of in-migration on the labor market opportunities of black northerners is to examine the relationship between employment outcomes and migrant inflow across migration destinations. However, such exercise is subject to three sources of bias. First, migrants may have been attracted to places with economic opportunity, which would cause OLS estimates for both employment rates and earnings to be biased upwards. By contrast, given the discrimination and information barrier faced by migrants in the northern labor market, they may have only been able to settle in declining areas where there are fewer occupational upgrading opportunities, causing OLS estimates for earnings to be biased downwards. Second, northerners may relocate in response to their expected labor market opportunities, causing sample composition bias when analyzing at the geographic aggregation level. Lastly, omitted variables in the cross-sectional data could also cause the OLS estimates to be biased.<sup>4</sup>

Some of these obstacles can be overcome by constructing an individual-level panel dataset of black northerners (Foged and Peri 2016). The availability of the digitized complete-count census data containing personally identifiable information in the prewar era made it possible

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<sup>4</sup>For example, Chetty and Hendren (2016) shows that the neighborhoods in which children grow up shape their adult labor market outcomes; Hout (1984) finds that black men who experienced occupational upgrading during the 1960s tended to come from advantaged social backgrounds in terms of their fathers' occupations.

to follow individuals over time. Using the supervised machine-learning approach introduced in Feigenbaum (2016), I build a new linked sample of northern-born blacks from 1910 to 1930 where I can observe a broad set of pre-migration sociodemographic characteristics to minimize the omitted variable bias. The benefits of having a linked sample also include the elimination of composition bias by comparing the outcomes of black northerners who already lived in migrant-receiving places in 1910 and the accessibility of critical demographic characteristics for investigating the potential mechanisms.

I address the endogeneity of migration inflow by taking advantage of the historical fact that current migrants tend to settle at the same place where early migrants from the same birth state already live, due to social networks and access to railroads.<sup>5</sup> Thus, a county's share of southern-born black residents before the migration is used as an instrument for the current settlement patterns of migrants from that particular southern state (Card 2001). To address the concern that the aggregate inflow of black migrants is also correlated with local labor demand shocks because migrants cluster geographically in certain northern cities, I substitute the total migrant inflow from each southern state by its cohort size of blacks at risk to migrate but still living in the South in 1910. Therefore, the flow component of my instrument rests on the spatial and age distribution of blacks in the South prior to the migration.

I find that in-migration (from 1910-1930) resulted in significantly less employment but better occupational attainment for black northerners in 1930. For both outcomes, my 2SLS estimates are larger in magnitude than the OLS estimates. On the one hand, it is consistent with the historical view that migrants tended to move to places where jobs were relatively more abundant; on the other hand, it suggests that these places migrants chose offered fewer occupational upgrading opportunities to the new black workers.<sup>6</sup> Since my measure

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<sup>5</sup>Carrington, Detragiache, and Vishwanath (1996): "While this chain migration centered on kinship ties, the connections extended beyond family lines. For example, Southern 'migration clubs' would often finance a sequence of trips to the North for their members, and young males were usually the first to go."

<sup>6</sup>From the perspective of southern black migrants, any place in the North might have been better in terms of earnings and safety compared to their southern conditions. In the South, wages were paid in some form other than cash once a year. By contrast, the wages paid in cash by the week or month in the North seemed

of migration inflow compares locations where northern blacks lived in 1910, the observed effects could have come from two sources – the creation of competition and new employment opportunity by migrants and the displacement of employment opportunity by the relocation of northerners between 1910 and 1930. To gain a better understanding of the source of the effects, I restrict the sample to stayers who lived in the same county in both census years. If the effects are indeed due to in-migration, I expect to find similar effects on the stayer sample. The results confirm my expectation; moreover, it suggests that out-migration of northerners is helpful only in securing employment, but not so much in regards to the quality of their employment.

I hypothesize that competition is the channel through which in-migration lower the employment of northern blacks. To investigate, I examine the relationship between in-migration and employment status for both northern-born whites, and northern-born blacks from different economic backgrounds. Since black and white workers were not considered as close substitutes in production, I expect in-migration to have no effect on the likelihood of employment for northern-born whites. Moreover, since migrants were often low-skilled sharecroppers prior to migrating, I expect the competition to be concentrated in the unskilled occupations. My estimates show that in-migration does not have a negative effect on whites regardless of their skill level, and in-migration exerts competitive pressure only on the unskilled northern-born blacks, a closer substitute to southern black migrants. Moreover, I show that in-migration did not disproportionately discourage northern black workers from participating in the labor force. Together, these findings suggest that competition with southern black migrants leads to lower employment for black northerners.

I close by documenting the mechanism through which in-migration increases northern-born blacks' occupational standing. The increasing black population in the segregated black communities created skilled employment opportunities for blacks. Northern-born blacks,

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“fabulous sums promising speedy wealth and success.” Therefore, the most immediate concern for most migrants was whether they could find a job outside the South. Moreover, the ultimate gain from moving to the highest paid place could have been lower than other places when considering the transportation cost.

especially those from more advantaged backgrounds, were able to reallocate their labor from unskilled to skilled occupations because they have the comparative advantage in terms of educational attainment and access to capital.

## 2 Historical Background

### 2.1 The Great Migration

From the introduction of slavery until the Civil War, black Americans mainly resided in the slave-owning South. However, all of the blacks living in the North before the Civil War were free, and some of them had achieved middle-class status. After Emancipation, the deprivation associated with share tenancy farming and the racial oppression of Jim Crow caused northward movement of southern blacks in search of a better life. However, northern cities in the late nineteenth century, the portals of industrial America for millions of European immigrants, had fewer opportunities for African Americans. Low-wage and low-skilled jobs were fulfilled by white Europeans.

Before the Great Migration, the small northern black population gained their livelihood mainly in domestic and personal service (Frazier 1957). Despite restrictions with employment opportunities in industry and white-collar occupations, a few of them were found in a wide range of skilled occupations, such as physicians, dentists, journalists, attorneys, clergymen, and proprietors (e.g., Brady 1996). Though residentially segregated from the whites, they did not suffer much discrimination in utilizing public institutions (Logan et al. 2015; Massey and Denton 1993). The leading blacks were mainly supported by the white community, both economically and politically. They also maintained close social and professional relationships with whites (Katzman 1975).

The outbreak of World War I (1914-1918) led to increased demand for manufactured goods throughout the industrial North. The curtailment of cheap immigrant labor by war and later the enactment of the Immigration Acts made the northern employers turn to do-

mestic workers for factory employment. At the same time, destructive conditions in southern agriculture such as the boll weevil and devastating floods pushed large numbers of black laborers out of cotton farming. As a result of these factors, southern blacks began migrating to the North.<sup>7</sup> This massive movement later became known as the Great Migration, which was slowed down by the Great Depression, then resumed in the 1940s, and lasted until 1970.

## 2.2 How the Great Migration Changed the North

A direct consequence of the Great Migration is that the size of the urban black population in the North significantly increased after 1910. For example, the black population in Wayne County, Michigan, increased from 7,241 to 131,836 between 1910 and 1930, with southern black migrants account for 76% of the change. “With generally minuscule black populations before the Great Migration,” noted in Tolnay (2003), “Northern and Western cities had achieved a relatively stable state of race relations, albeit one characterized by distinct racial inequality. That situation began to change, however, as waves of migrants from the South produced extraordinary growth in local black populations.”

The current view of how black employment in the North was affected is mixed. Gottlieb (1996) describes that “blacks in the North saw their occupations gradually compressed from a heterogeneous range of jobs into a comparatively narrow spectrum of employment.” Blacks in the North were not only confined to the lowest-status jobs, but also consigned to black neighborhoods regardless of their social class and geographic origin, through racial violence, bombing, and white flight. Racial hostility increasingly blocked blacks access to a variety of amenities and necessities, such as theaters and health service (Trotter 1985). By 1930, widespread interracial contact was no longer a phenomenon in American cities.

Despite the competition that underlaid the struggle for jobs and housing, the growing black population in the ghetto formed the demographic and financial foundation for the

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<sup>7</sup>For example, the bleak job prospects and physical violence in the Jim Crow regime, the lure of higher wages in the North, the industrial recruitment campaigns, and the discontent spread by black press such as the *Chicago Defender* (DeSantis 1998).

emergence of a larger black middle class between 1910 and 1930. The new black middle class was owners of small businesses as well as professional elite, who almost exclusively serve the needs of black clientele.<sup>8</sup> For instance, black ministers catered to black congregations, and black writers covered their social interests.<sup>9</sup> The number of blacks engaged in professional, business, and clerical occupations in the North doubled, increased from 55,586 in 1910 to 100,777 by 1930.

Increased black populations in the North also granted blacks more political power, which yielded employment opportunities for blacks in the public sector.<sup>10</sup> For example, the Milwaukee County Board of Supervisors created the position of “Social Worker (For Colored People)” in 1930 in response to political pressure from blacks to serve the increasingly segregated black population. Police, school board, and other public departments followed suit (Trotter 1985).

### 3 Data and Measurement

I use the regression-based, supervised machine-learning approach introduced in Feigenbaum (2016) to link individuals across censuses. Since it is a fairly standard approach, I briefly introduce my linking procedure here and the construction of key variables in this analysis. Details on the matching, representativeness, and sensitivity tests are provided in the

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<sup>8</sup>Higgs (1977) wrote that “Discrimination outside the market sector had an important influence in determining the opportunities open to blacks inside the market sector. [...] A large, concentrated, black community allowed the emergence of a more complex and developed black community with its own merchants, craftsmen, and professional people.”

<sup>9</sup>Urban black churches experienced significant growth during the migration era. For example, Abyssinian Baptist Church is founded in 1910 by Adam Clayton Powell, Sr., in Harlem. This church had become the largest in the nation by 1930, with over twenty thousand members. Other black churches, such as the Mount Olivet Baptist Church in Chicago and the Bethel AME Church (Mother Bethel) in Philadelphia, all had a considerable number of members and became centers of religious activity.

<sup>10</sup>“There was no denial of voting rights in the North, and soon African American politicians were being increasingly elected to office. As early as 1915, blacks served on the city council in Chicago, as they did in 1919 in New York. By 1928, Oscar DePriest of Chicago had become the first northern black congressman and the first Black man to sit in Congress since 1901. In key industrial states like Ohio, New York, Illinois, and Pennsylvania black voters often swayed the balance of power between the Republican and Democratic parties, which gave them state and national influence far out of proportion to their numbers. To serve them a new urban black middle class emerged, out of the growth of black community services.”

Appendix. Lastly, I describe the black northerners in my sample.

### 3.1 Creating the Linked Census Sample for Black Northerners 1910-30

I begin with an initial sample from 1910 that includes all the northern-born black males, aged 0 to 17 inclusive, residing with their parent or step-parent in the North.<sup>11</sup> This restriction results in a total of 60,705 individuals who were young enough to be living with their fathers or household-head mothers in 1910 and were old enough to be participating in the labor force in 1930. They are also at an age where they can change their occupational and educational choices in response to the migrant inflow. I then find each individual in the complete-count 1930 census, limiting the set of possible matches for any given black in 1910 to be the black males in 1930 who meet the following criteria: born in the same state, born in the same year  $\pm 3$  years, have the first letter of first and last names match, and have a Jaro-Winkler string distance in the first and last names of greater than 0.8.<sup>12</sup>

The basic idea of the machine-learning approach is to have the algorithm learn the implicit rules that a careful and well-trained researcher uses to match records across historical samples and replicates these decisions for the full dataset (Feigenbaum 2016). Therefore, I manually build a “ground truth” sample of approximately 5% of the initial sample to guide the algorithm.<sup>13</sup> In the case when an individual has more than one best match, he will have no match to be declared since it is impossible for me to decide which pairing is correct. Similarly, a person from 1930 cannot be matched to more than one individual from 1910.

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<sup>11</sup>Following previous literature, I define the following 14 states as the South: Texas, Oklahoma, Arkansas, Louisiana, Mississippi, Kentucky, Tennessee, Alabama, Florida, Georgia, South Carolina, North Carolina, Virginia, and West Virginia (Collins and Wanamaker 2015; Collins and Wanamaker 2014; Boustan 2009). For convenience, all other parts of the contiguous United States are referred to as the North.

<sup>12</sup>Unlike contemporary dataset where there exists a unique personal identifier such as social security number, the linking of historical datasets have to rely on time-invariant variables such as names and ages. However, due to errors from census respondents, enumerators and digitization workers, information about names and ages are not always accurate. Feigenbaum (2016) examines the matched sample from IPUMS and finds that the linked individuals have birthyear difference less than 3 and name distance less than 0.2.

<sup>13</sup>Sampling from the initial sample to keep all possible matches for a given individual.

For the algorithm to find the best match, I also need to choose a value between 0 and 1 for the absolute threshold and a value between 1 and infinity for the relative threshold. With the goal to minimize both the false match rate and the missed match rate, I set the absolute threshold at 0.36 and the relative threshold at 1.05.<sup>14</sup> The corresponding sample match rate is 40.68%, along with an average false match rate of 4.87% and an average missed match rate of 11.98%. These rates compare favorably with other studies linking across U.S. census files at the beginning of the twentieth century.<sup>15</sup>

### 3.2 Measuring the Occupational Earnings Score and Rank

Because wage data was not collected before 1940, scholars have developed approaches to estimate an individual’s occupational earnings as a proxy for labor market outcomes (e.g., Collins and Wanamaker 2017; Ruggles et al. 2017). Following the approach introduced by Collins and Wanamaker (2017), I construct an occupational earnings score for each occupation-race-gender-region cell based on its average 1940 income. This approach is similar in spirit to the OCCSCORE variable from IPUMS that is based on the median total income of all persons with that particular occupation in 1950 (Ruggles et al. 2017). It has, however, more flexibility to reflect differences by location, race, gender, and farm ownership.<sup>16</sup> Most importantly, the 1940 income matches more closely to my sample period than the 1950 income.

Specifically, because income for self-employed workers is not recorded in the 1940 census, I first assign an imputed wage to self-employed as the average 1940 value for wage workers multiplied by the ratio of one to the other in 1960. Then I construct an earnings score for each occupation-race-gender-region cell by calculating the average earnings for everyone with income information in 1940, including both wage earners and self-employed workers,

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<sup>14</sup>False match rate represents the share of algorithm determined matches to be wrong; missed match rate represents the share of true matches failed by the algorithm. Both inaccurate matches and selective linkages could have significant effects on inference (Bailey et al. 2017).

<sup>15</sup>A close comparison is Collins and Wanamaker (2017), where they link southern-residing males aged 0-17, residing with their father or stepfather, from 1910 to 1930. The reported match rate is 27 percent.

<sup>16</sup>Farmers’ earnings are imputed by the product of the average 1940 value in farm laborer cell and the 1960 earning ratio of farmers over farm laborers. The ratio differs by gender and home ownership. Note that within cell differences or changes in earnings cannot be observed.

in that specific cell. Finally, I assign earnings scores to all individuals from both the 1910 census and the 1930 census based on their occupation, race, gender, and census division of residence.

Using the national earnings score distribution as a reference, I convert the assigned earnings score into percentile rank in each year (e.g., Collins and Wanamaker 2017; Chetty, Hendren, et al. 2014). The 1910 national sample includes all household heads (black and white) with sons aged 0 to 17 in 1910. The 1930 national sample includes all black and white males aged 20 to 37 in 1930. Rank is used because it allows a direct comparison of one’s economic status to its peers.

### 3.3 Measuring Migration Inflow 1910-30

The census records an individual’s birthplace and place of residence at the census year. However, migration status is available before 1940. Therefore, I define a “southern black migrant” as any black individual whose birthplace is in one of those 14 southern states and whose place of residence is in the North. Since states are too heterogeneous to reveal migration flows across labor markets, I examine migrant flows at the county level to focus more directly on the relevant labor markets. The *actual* migration inflow (MI) is then measured by the sum of changes in the total number of southern black migrants by state of birth (s) in a northern county (c) between 1910 and 1930.<sup>17</sup>

$$MI_c = \sum_{s=1}^{14} (SB_{sc}^{1930} - SB_{sc}^{1910}) \quad (1)$$

Between 1910 and 1930, the top 3 sending states are Georgia (195,999), South Carolina (133,518), and Virginia (131,117); the top 3 receiving counties are Cook County in Illinois (148,838), Wayne County in Michigan (94,672), and Philadelphia in Pennsylvania (90,741).<sup>18</sup>

Figure 2 Panel A displays a map of all the receiving counties in the North. It is clear from

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<sup>17</sup>I show in the Appendix that counties with migrants inflow were also destinations for northern black migrants. Their correlation is higher than 0.95 and is significant at 1%.

<sup>18</sup>The corresponding cities are Chicago, Detroit, and Philadelphia.

the figure that migrants disproportionately settled in great urban centers.

### 3.4 Describing the Black Northerners in the Sample

While I have linked more than 24,000 individuals, only 12,623 were used in this analysis, all of whom participated in the labor force in 1930.<sup>19</sup> The sample counties are displayed in Figure 2 Panel B. Table 1 shows that the majority of black northerners stayed in their birth state in 1910, and very few of them lived on the farm. More than half of them were attending school; almost one-third of them were considered as light-skinned blacks (enumerated as “mulatto” in 1910 census); more than a fifth of them grew up in owner-occupied housing. They have a relatively stable family structure, and their parents were predominantly literate.

Table 2 splits the sample into two groups for comparison. High-migration includes those whose 1910 county of residence experienced above-median migration inflow. 1910 statistics are based on characteristics of the household head, while 1930 statistics are based on adulthood outcomes of the linked black northerners. There is positive selection into the migration destinations: both the employment and occupational earnings score were higher in high-migration counties in 1910. The high-migration counties are also less agricultural oriented in 1910: less than 2% of the black northerners in high-migration counties were farmers, while the share in low-migration counties is 16%. From 1910 to 1930, more black northerners engaged in the non-agricultural sector. Among all the occupation categories, the share of black northerners in the white-collar jobs saw the most significant expansion in high-migration counties while the most significant increase for the unskilled jobs happened in low-migration counties. Comparing between the two generations, an average black northerner’s absolute economic standing is improving relative to its peers.<sup>20</sup> In 1930, high-migration counties

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<sup>19</sup>First, I lose around 30% (7,430) of the linked individuals by restricting the sample to counties that had southern-born black residents in 1880 (discussed later) and migration inflow between 1910 and 1930. Then, I lose 3,998 individuals when restricting the sample to those in which they and their 1910 household head both had valid occupational information. Last, I lose 645 individuals by restricting the sample to counties where I have at least 10 observations.

<sup>20</sup>Peer to household head is defined as all the household head (black and white) with sons aged 0 to 17 in 1910; Peer to sons is defined as all black and white males aged 20 to 37 in 1930.

were associated with lower employment and higher occupational earnings score for black northerners.

## 4 Empirical Strategy

In this section, I introduce the baseline estimating equation and construct an instrument for migration inflow.

### 4.1 Baseline Estimating Equation

To systematically examine how in-migration affects employment outcomes of black northerners, I estimate

$$y_{ics} = \alpha + \beta \log MI_c + X'_{ics} \gamma + \delta_s + \epsilon_{ics} \quad (2)$$

where  $y_{ics}$  is either the binary variable for employment status or the percentile rank of occupational earnings score in 1930;  $\log MI_c$  represents the natural log of migration inflow between 1910 and 1930 for northern county  $c$  at where individual  $i$  lived in 1910;<sup>21</sup>  $X'_{ics}$  is a vector of baseline controls measured in 1910 at the individual-, family-, and county-level (specified below);  $\delta_s$  is the 1910 state of residence fixed effect. The coefficient of interest,  $\beta$ , thus relates the change in (log) migration inflow to the change in expected likelihood of employment or expected occupational standing of black northerners across counties within the same state. Standard errors are clustered at the county-level to reflect that northern-born blacks growing up in the same county experienced the same level of migration shock.

The set of individual-level controls include skin color (light vs. dark skin), age, literacy (measured by both “can read” and “can write”), school, migration status before 1910 (measured by whether living in the birth state in 1910); family-level controls include his

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<sup>21</sup>A binscatter plot of rank and migration inflow variable shows that the log transformation of migration inflow exhibits a linear relationship with rank and the residual is normally distributed.

household head’s occupation percentile rank, literacy, marriage status, homeownership, farm status, gender, age, and nativity; county-level controls include mean black earnings, total and black population.

## 4.2 Instrument for Migration Inflow

The Great Migration did not accelerate until the WWI led to a labor demand boom in the North. Since employment is fundamental to any migration decision, counties receiving more black migrants could have more jobs offered to black workers to begin with. As we saw in Table 2, high migration counties had better pre-migration labor markets. Therefore, the comparison across high- and low-migration counties will be biased against finding any effect on black northerners’ employment rates. While the OLS estimate for occupational standing could be biased too, the likely direction of bias is unclear. It would be biased upward if migrants were attracted to growing counties with better employment options. Alternatively, the OLS results will be biased downward if migrants were selected into otherwise declining counties that weren’t attracting foreign-born whites (Lemann 2011; Collins 1997).

Although the inclusion of 1910 county characteristics listed above can account for selection to some degree, I construct a modified version of the shift-share instrument to further mitigate the endogeneity concern of migration choice (Boustan 2009; Card 2001; Altonji and Card 1991). The instrument predicts the number of southern blacks received by northern counties between 1910 and 1930 by interacting 1880 settlements of southern blacks in the North with the pool of southern blacks “at risk” to migrate. This counterfactual measure indicates what the migration shock would have been if *all* the southern blacks aged 0-40 living in the South in 1910 had moved North. Literature suggests that younger blacks are more likely to migrate because they experience smaller psychic costs and can collect greater gains from migration over a longer period (Collins 1997; Higgs 1977; Long and Heltman 1975). Moreover, this birth cohort is the freed generations born after the Civil War who have developed a stronger sense of race consciousness and aspirations for social justice. The

intuition behind this instrument is that (1) blacks departing the South tended to follow a settlement pattern that was similar to that of blacks who had left their state in earlier decades, due to the stability of railway routes and enduring social networks; (2) the stock of southern blacks from, for example, Mississippi in 1910 is unlikely to be influenced by the labor market condition in Chicago after 1910, while the *actual* national-level outflow from each southern state between 1910 and 1930 is more plausibly correlated with the local economic conditions in common migration destinations.

In mathematical form,  $MI_c$  in equation 1 is instrumented with

$$\hat{M}I_c = \sum_{s=1}^{14} \left[ \left( \frac{SB_{s,c}^{1880}}{SB_{s,North}^{1880}} \right) * CS_{s,South}^{1910} \right] \quad (3)$$

where  $SB_{s,c}^{1880}$  is the total number of blacks from a southern state  $s$  living in the northern county  $c$  in 1880; and  $SB_{s,North}^{1880}$  is the total number of blacks from state  $s$  in the North in 1880.  $CS_{s,South}^{1910}$  is the cohort size of blacks aged 0-40 born in state  $s$  and living in the South in 1910. Due to the log transformation, only the counties with a positive number of southern black residents in 1880 and with a positive migration inflow between 1910 and 1930 are considered in this paper to have consistent sample size across regression analysis.

#### 4.2.1 IV Power

The instrument constructed in equation 3 exploits two sources of variation in migration, which are not driven by other unobservable factors such as labor demand conditions. The first one is the variation in demographic patterns in the South before the migration (see Panel A in Figure 3), and the second one is the variation in the share of southern blacks from each southern state living in different counties within a northern state in 1880. Figure 3 Panel B presents an example of two primary receiving northern states (Illinois and Pennsylvania) and two primary sending states (Georgia and Virginia) to illustrate this variation.

### 4.2.2 First Stage Results and Instrument Validity

For all specifications, the F-stat is very high, and the instrument has a large, positive, and significant effect on the actual migrant change.<sup>22</sup> It indicates that historical settlement patterns of southern blacks in the North are useful in predicting migration destinations more than 30 years later. Given the length of this lag, it is unlikely that the instrument is correlated with current labor demand conditions. Nevertheless, I include white (both immigrant and native) population change in the same county between 1910 and 1930 as a means of controlling for the potentially omitted labor demand shocks. One may still be concerned that counties with larger southern black migrants in 1880 were those having economic supremacy in 1880 and continued their reign in the subsequent decades. To alleviate this concern, I also include 1880 county characteristics such as the size of total and black populations in my preferred specification.

## 5 Results

In this section, I present my main results and a host of robustness checks.

### 5.1 Effects on Employment

In Panel A of Table 3, I study the effect of the Great Migration on black northerners' likelihood of employment. I start by estimating equation 2 with OLS: column 1 includes state fixed effect and a host of individual-, family-, and county-level controls.<sup>23</sup> The point estimate on migration inflow is negative and statistically significant.

From column 2 onwards, I present 2SLS results. Column 2 replicates column 1, instrumenting the migrants change with the modified shift-share instrument introduced in Section

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<sup>22</sup>Full first stage results are reported in the Appendix.

<sup>23</sup>While it is a linear probability model, none of the predicted probabilities lie outside the unit interval. Horrace and Oaxaca (2006) shows that, if no (or very few) predicted probabilities lie outside the unit interval then the LPM is expected to be unbiased and consistent (or largely so).

4.2. As expected, the coefficient is now larger in magnitude and remained statistically significant. Column 3 adds county characteristics in 1880 and the change of white population between 1910 and 1930. Its point estimate implies that a one standard deviation (2.38) increase in the (log) migrant inflow decreases northern-born blacks' employment rates by 2.86 percentage points, or 3.3% of the 1930 mean for a typical recipient county. In the larger recipient county like Wayne, this effect amounts to 5.96 percentage points, or 6.87% of the 1930 mean when compared to its neighboring county Washtenaw.

To account for the possibility that in-migration may lead to an outflow of similarly skilled northern blacks, I run the same specification on the stayers. The result in column 4 remains qualitatively in line with those reported in column 3 but become larger in magnitude, confirming that displacement of northern blacks, if anything, attenuates the baseline results.

## 5.2 Effects on Occupational Standing

I next analyze the effect of the Great Migration on black northerners' occupational standing, measured by national percentile rank. As in Panel A, column 1 in Panel B reports OLS results, while subsequent columns present 2SLS estimates. In all cases, the point estimate is positive and statistically significant. Holding white population change and 1880 county characteristics constant in column 3 does not substantially change the result, suggesting that the different earnings created by the instrument flow were reasonably uncorrelated with the labor demand factors. The inclusion of these two additional controls, however, is a more rigorous way of accounting for potential spurious correlation between local economic activity and the Great Migration, and thus delivers relatively more conservative estimates.

According to my preferred specification, reported in column 3, a one standard deviation increase in (log) migration inflow raises northern-born working blacks' occupational standing by approximately 1.33 percentile ranks, or by 3.96% relative to 1930 mean.<sup>24</sup> By the construction of the occupational earnings score, the northern-born black males in my sample

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<sup>24</sup>Since we cannot observe within-cell wage change, the possibility that in-migration leads to lower black wages, however, must still be borne in mind when interpreting any of the results.

can increase their occupational earnings and thus percentile ranks by holding the same type of jobs but moving to a higher-paid census division, or by obtaining higher-paid jobs within the same division. The county where a northern-born black grew up does not necessarily correspond to the county he lived in as an adult when I measured his occupational earnings in 1930. The result from column 4 using the stayer sample voids the concern that outflow of black northerners drives the impact of in-migration: the effect becomes substantially larger. Therefore, in-migration creates opportunities for black northerners to obtain higher-paid jobs.

The fact that 2SLS estimates are larger in magnitude than the OLS in both Panel A and B implies that migrants were moving to counties with more jobs but with fewer opportunities for skill upgrading.

### 5.3 Robustness Checks

I use an alternative measure OCCSCORE that were used in many other studies for occupational standing.<sup>25</sup> All persons with the same occupation share the same OCCSCORE regardless of his location. It is top coded at 80. The coefficients from a log-log regression of OCCSCORE on migration inflow in Panel A of Table 4 are statistically significant at the expected sign. The estimated elasticity is slightly larger than the one we obtained in 3 Panel C, probably because OCCSCORE fails to capture gaps by gender and home ownership status within an occupation.<sup>26</sup>

The construction of an occupational earnings score assigns the same score to all persons in the same occupational cell regardless of his employment status. Collins and Wanamaker (2014) finds that “black men in the North who were unemployed at the time of enumeration worked approximately 85 percent as many weeks in the previous year as those who were employed at the time of enumeration” in 1930 using the IPUMS data. Therefore, as a

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<sup>25</sup>Examples see Table 1 in Saavedra and Twinam (2018), where a long list of published studies using OCCSCORE is provided.

<sup>26</sup>The elasticity in the linear-log model is calculated as  $\frac{\beta}{\gamma}$

robustness check, I assign *EarningsScore*<sup>b</sup> to everyone where the unemployed workers now has only 85% of the earnings of the employed ones in the same occupational cell. Similar results as to those in Panel A are obtained in Panel B of Table 4.

Rather than distributing the state-level outflow of southern blacks, I use the national outflow of blacks from the South to the North to construct a different instrument flow measure that is purely based on the variation in the share of southern blacks in the North in 1880. The estimated effects, presented in the Appendix, are qualitatively similar and slightly larger in magnitude.

While the linked sample represents the initial linking sample overall, a few variables exhibit statistically significant influence on the probability of linkage. In the Appendix, I show that their presence did not bias my estimates: the weighted regressions deliver almost the same results as the unweighted ones in Table 3. Therefore, all other results in this paper are estimated based on the unweighted sample.

## 6 Mechanisms

In this section, I offer support to the idea that black migrants serve as both competitors and consumers to black northerners in the labor market. I also explore the heterogeneous effect of the Great Migration, in an attempt to distinguish between winners and losers within black northerners.

### 6.1 Competitors

Did counties that experienced a more substantial migrant influx have lower employment rate for blacks to begin with? By comparing the employment status of their fathers in 1910, Figure 4 visually confirms that there is no significant difference in employment rates across these counties before the migration. So then, why did black northerners from high in-migration counties had significantly lower employment rate in 1930? Competition is one

obvious explanation since southern black migrants tend to work in the same types of jobs as did the majority of the northern-born blacks when they enter the labor market in the North.

Given that southern black migrants were disproportionately unskilled workers, the competition should have concentrated in the unskilled occupations. Suggestive evidence in Table 5 supports this argument: the negative effect of in-migration on the likelihood of employment is imposed only on the unskilled northern black workers.<sup>27</sup> On average, northern blacks with skilled occupations have a higher employment rate than those who hold unskilled occupations, and this discrepancy gets larger with in-migration since in-migration made only the unskilled northern blacks to experience a greater risk of unemployment. Additionally, given that the labor market was largely segregated by race, black migrants should have exerted little to none competitive pressure on white workers. This is supported by the evidence provided in column (5) to (8) of Table 5.<sup>28</sup>

The even higher unemployment rate for the stayers suggests that out-migration of black northerners alleviate the competition pressure. Surprisingly, however, Figure 5 shows that unskilled northern black workers from high in-migration counties are no more likely than their counterparts from low in-migration counties to move out, reflecting the power of economic opportunities in the high in-migration counties.

According to the simple supply and demand model, an influx of substitutable workers constitutes an increase in the supply of labor, causing wages to fall for black workers with similar skills. One potential difference between northern-born and southern-born blacks is that they might have different reference points for fair pay. For example, southern migrants tended to compare wages to what they would have expected in the South and accepted jobs not taken by the northern-born blacks (Long and Heltman 1975; Broom and Glenn 1967).

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<sup>27</sup>Note that a person in my sample is classified as an unskilled worker if IPUMS labeled his occupation as: operatives and kindred workers; private household workers; service workers (except private household); farm laborers and foremen; laborers (except farm and mine).

<sup>28</sup>I linked northern-born whites using the same approach described in the data section. Wright(1986) argues that decades of occupational and industrial segregation had resulted in black and white workers occupying “noncompeting jobs,” even at the entry level. Boustan (2009) also provides evidence on racial segregation in employment within skill groups.

While wage changes within an occupation cannot be observed, northern-born blacks from high in-migration counties should have been less likely to participate in the labor force if the new wage scheme indeed discouraged them from working for what is not “respectable” pay. However, I find no evidence in Table 6 that in-migration affects black northerners’ labor force participation rates when expanding the sample to include those not in the labor force.<sup>29</sup>

## 6.2 Consumers

The positive effect on occupational standing estimated in Table 3 is consistent with a recent body of the literature that documents a positive impact of immigrants on natives’ occupational mobility (e.g., Tabellini 2017; Sequeira, Nunn, and Qian 2017; Peri and Sparber 2009). Their intuition is that the complementarity between immigrants and natives induced the latter to reallocate their labor from unskilled to skilled occupations, where they might have a comparative advantage. In line with this, table 7 shows that black northerners from high-migration counties are more likely to become white-collar workers and less likely to become unskilled workers.

What kind of white-collar jobs did they hold? In numbers, clerical workers take the lead, followed by business and professional people and salesmen.<sup>30</sup> How did they obtain these white-collar jobs? One channel of entry, as mentioned in Section 2, is through exerting political pressure on the public sector to create positions for blacks to serve the new black communities.<sup>31</sup> Another channel of entry is through conducting business that caters to the black communities. Jobs such as funeral home owners and real estate agents were

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<sup>29</sup>According to IPUMS, the labor force consists of all persons defined as “employed” or “unemployed”. Discouraged workers are considered not in the labor force. The 1930 census indicates whether or not a person filled out an unemployment schedule. Every person in the EMPSTAT “unemployed” category completed an unemployment schedule, regardless of whether or not they reported an occupation. Persons who did not report occupation and did not fill out an unemployment schedule are in the EMPSTAT “not in the labor force” category.

<sup>30</sup>I group black business and professional people together because the line between them can sometimes be obscured. For example, a dentist could be a professional who also owns the business. This group is what Talcott Parsons has called the “market-oriented business group” (Trotter 1985).

<sup>31</sup>However, they remained restricted to the least profitable and prestigious public positions such as mail carriers and post office clerks.

accessible to potential entrepreneurs before the migration, but their economic variability relies on its demographic base and intra-racial unity. The influx of migrants increased the number of black consumers; at the same time, with migration further intensifying racial discrimination, the ideology of black metropolis, racial solidarity, and self-help (black support of black enterprise) was resurgence among the black elite (cite). Therefore, both the *number* and the *types* of black businesses and professionals are larger in high-migration counties.

Though migration expanded the demand for skilled labor, they did not remove all the barriers that had previously thwarted black business development, such as lack of capital and white support.<sup>32</sup> Therefore, black northerners from the better-off economic background would be more likely to be successful in these ventures. To test this hypothesis, I split the sample by their skin color (light-skinned vs. darker-skinned) and by their fathers' socioeconomic status. Light-skinned blacks were more likely to have family resources, white connections, and the ability to attract customers of both races, all of which would translate into greater success in seizing the employment opportunities created by in-migration.<sup>33</sup> A person is classified into the low SES group if his father's rank in 1910 below the median. Results from Table 8 suggests that, indeed, in-migration had greater positive impact on the occupational standing of mulattos and those from high SES families.

## 7 Conclusion

Peter Gottlieb (1987, p. 2) in his book, *Making Their Own Way: Southern Blacks' Migration to Pittsburgh, 1916-30*, wrote that "Southern blacks movement presaged lasting changes for the migrants, and for racial practices and habits of mind at every level of American society. Given the importance bestowed on blacks' northward migration, it is surprising how little

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<sup>32</sup>For example, C. L. Johnson in 1931 wanted to employ unemployed black men by establishing a car parking service in downtown Milwaukee, but his plan was blocked by a hostile reaction from potential white customers. This example highlighted the importance of white assistance in developing black enterprises as well as the narrowing opportunities to build businesses catering mainly to whites (Trotter 1985).

<sup>33</sup>Census in 1910 allowed individuals to be enumerated as black, white, or mixed. This trichotomous racial classification was abandoned in 1930 (Shertzer 2018).

we know about it.” Today, 30 years later, our knowledge of the Great Migration’s social impact is still far from complete.

This paper contributes to a better understanding of how the Great Migration affects the labor market outcomes of blacks who had been longstanding residents of the North. Most importantly, this paper paints a nuanced picture, in which economically advantaged northern blacks benefited from better opportunity while disadvantaged northern blacks saw higher unemployment.

In contemporary America, blacks, as well as other minority groups, are often treated as a monolithic or homogeneous group. Race is viewed as a Black/White issue. The vast majority of the existing literature makes the erroneous assumption that all blacks share the same experience and background. Little studies explain how within-group heterogeneity affects the experiences of blacks and their interactions with whites. This paper strengthens the importance of distinguishing blacks by their regional origin, socioeconomic status, family backgrounds, and skin tone. To better understand the experience of black Americans, future studies should not overlook critical within-group differences, particularly those examining the link between race and disparities in education, income, health, etc.

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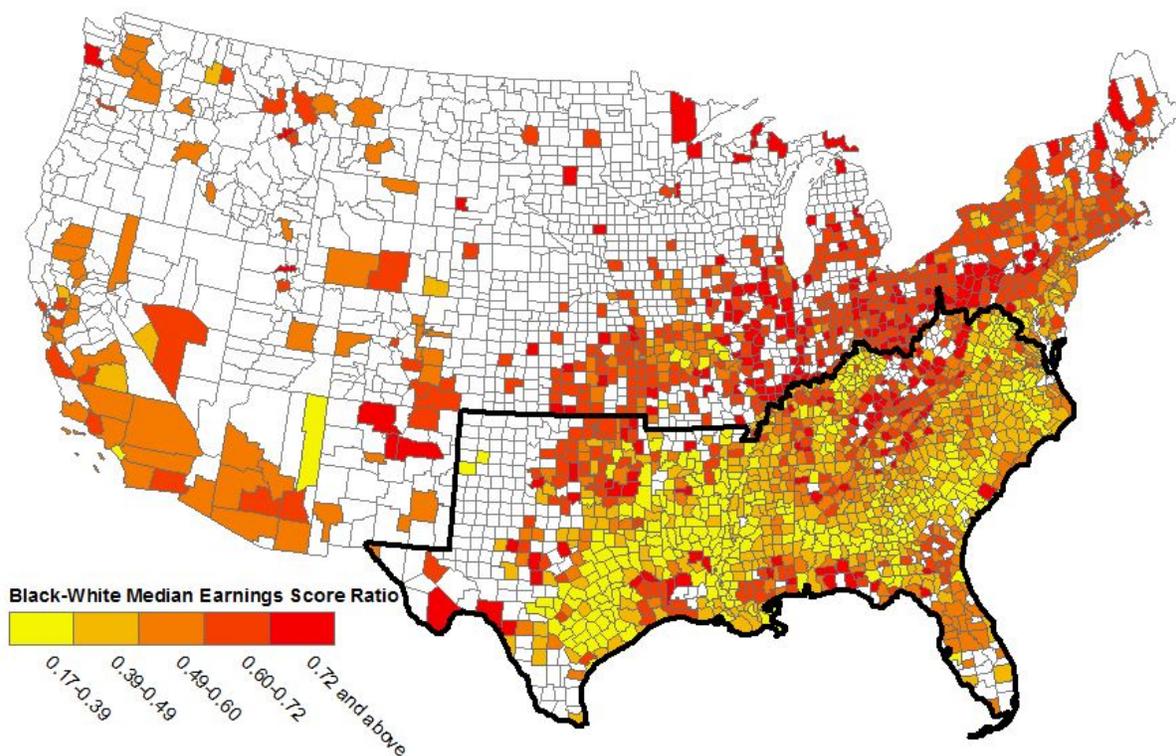
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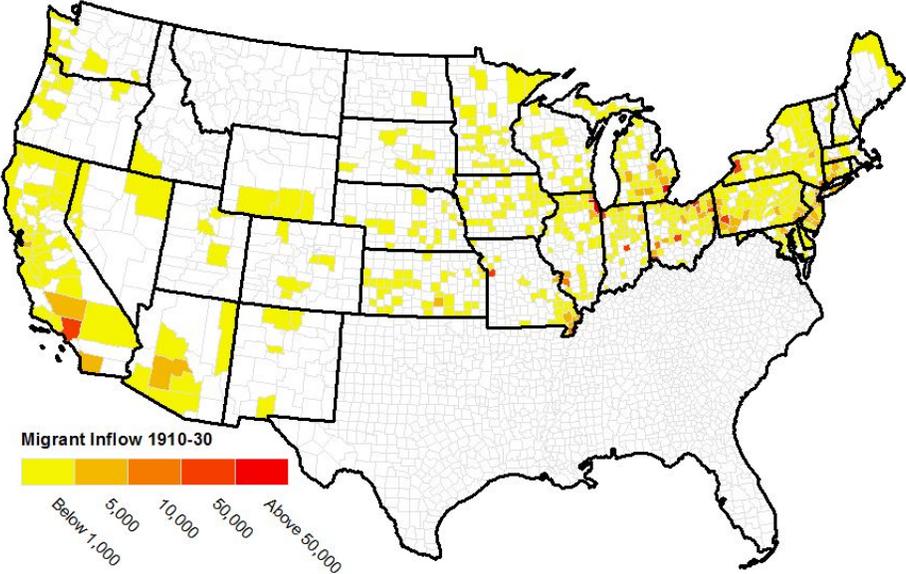
Figure 1: Black and White County Median Occupational Earning Ratio in 1910 (Before the Great Migration)



*Notes:* Occupational earnings is constructed by averaging 1940 income based on occupation-race-gender-region cell (Collins and Wanamaker 2017). States with thick border are defined as the South. Only counties with at least 50 blacks and whites are considered. Data divided into five quantiles with the top quantile further divided by value 1. Source: Author's calculations using IPUMS data (Ruggles et al. 2017).

Figure 2: Migration Inflow in Northern Counties Between 1910 and 1930

Panel A. All Counties



Panel B. Sample Counties

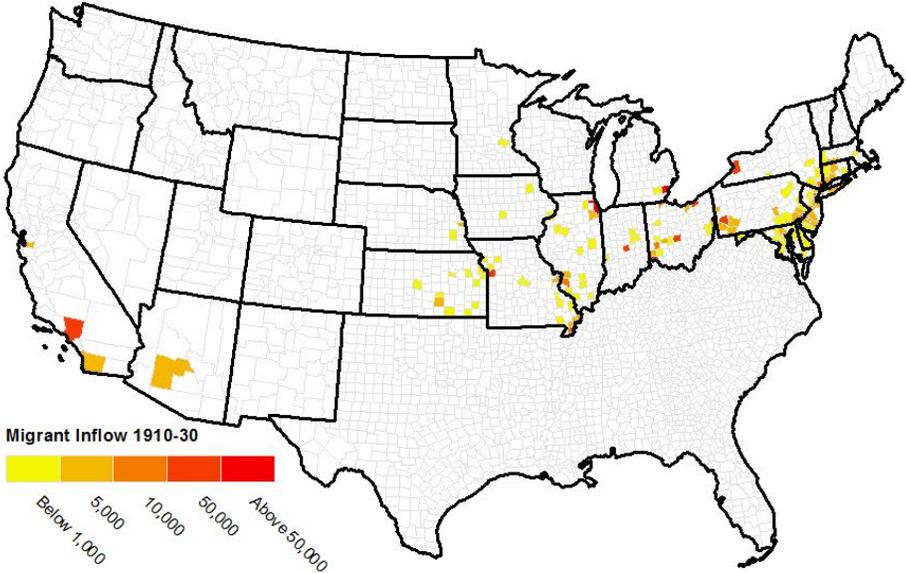
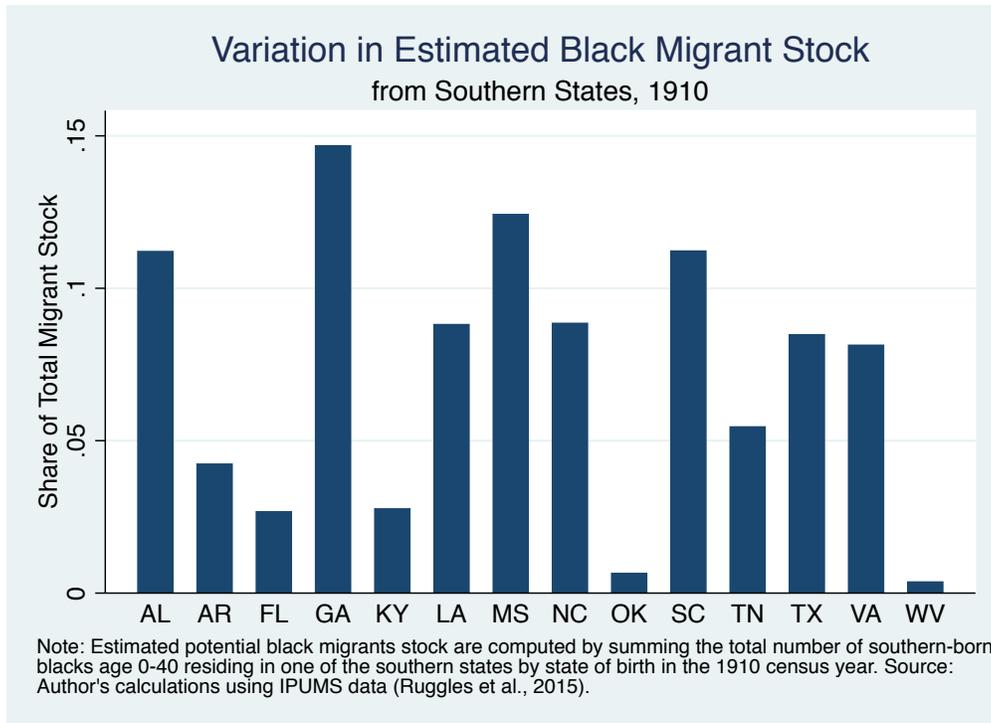


Figure 3: IV Power

Panel A



Panel B. Variation in Southern Black Settlement Within a State, 1880

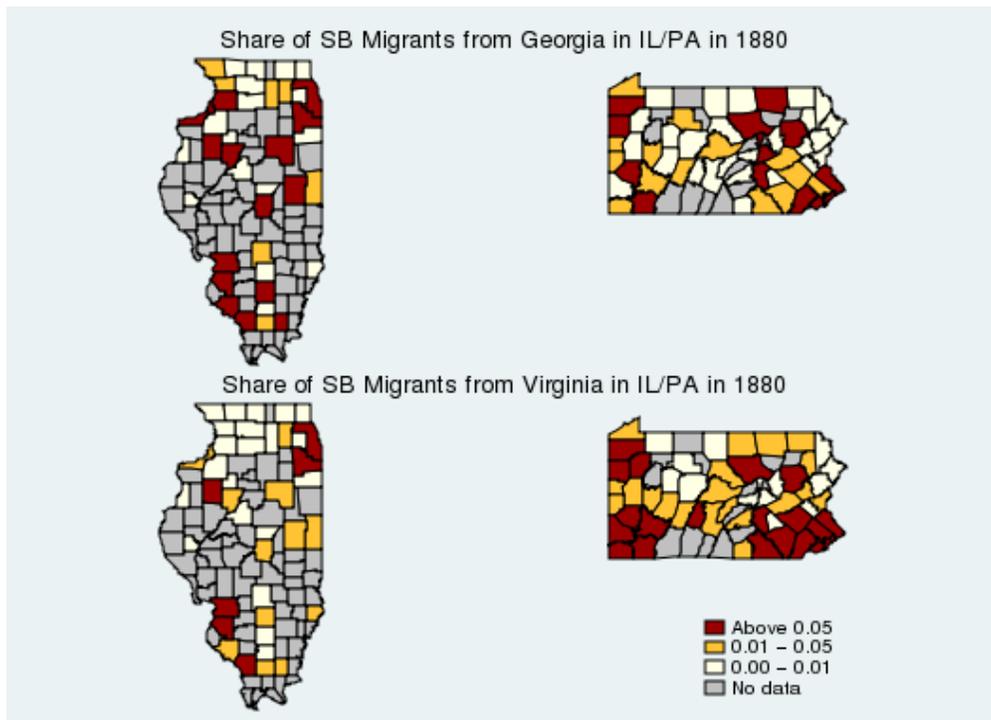
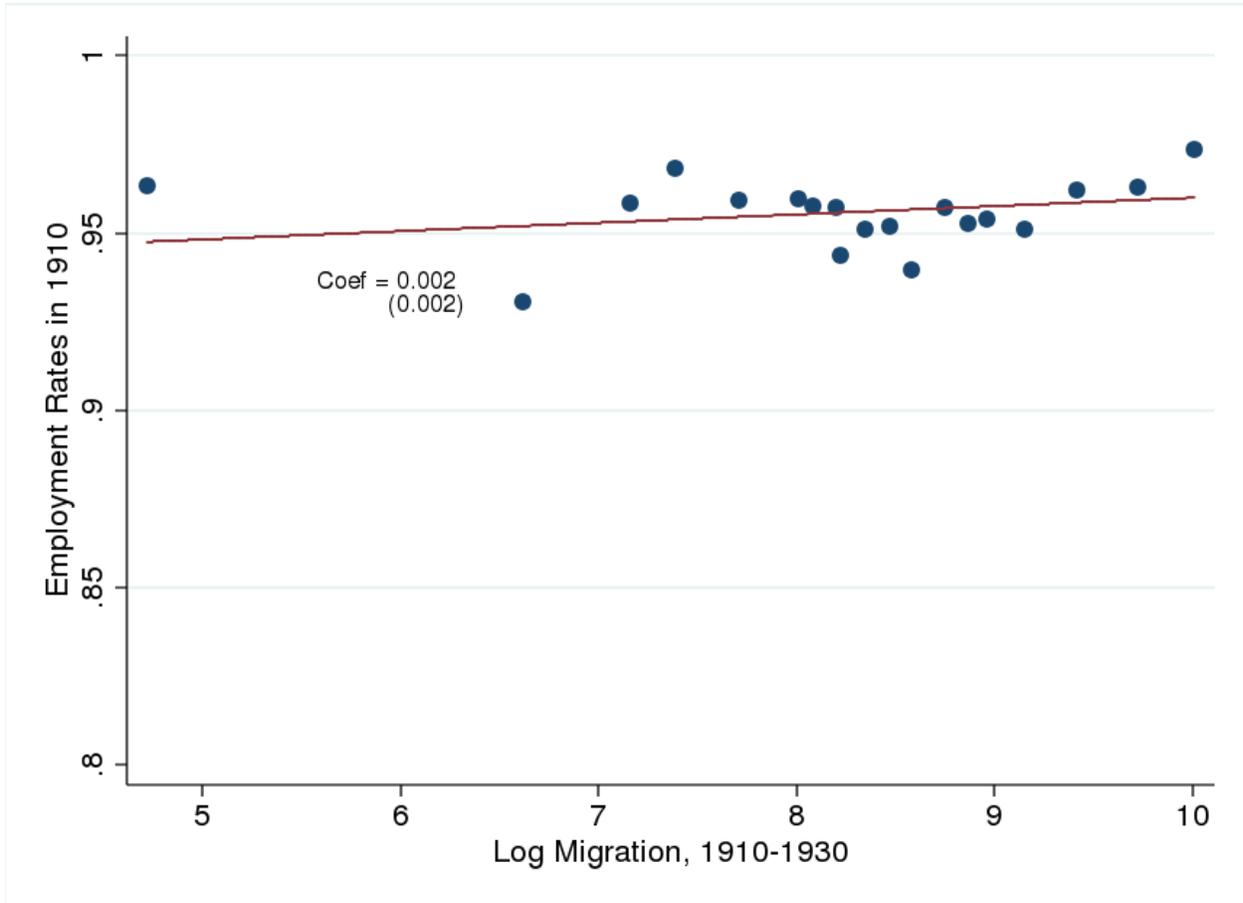
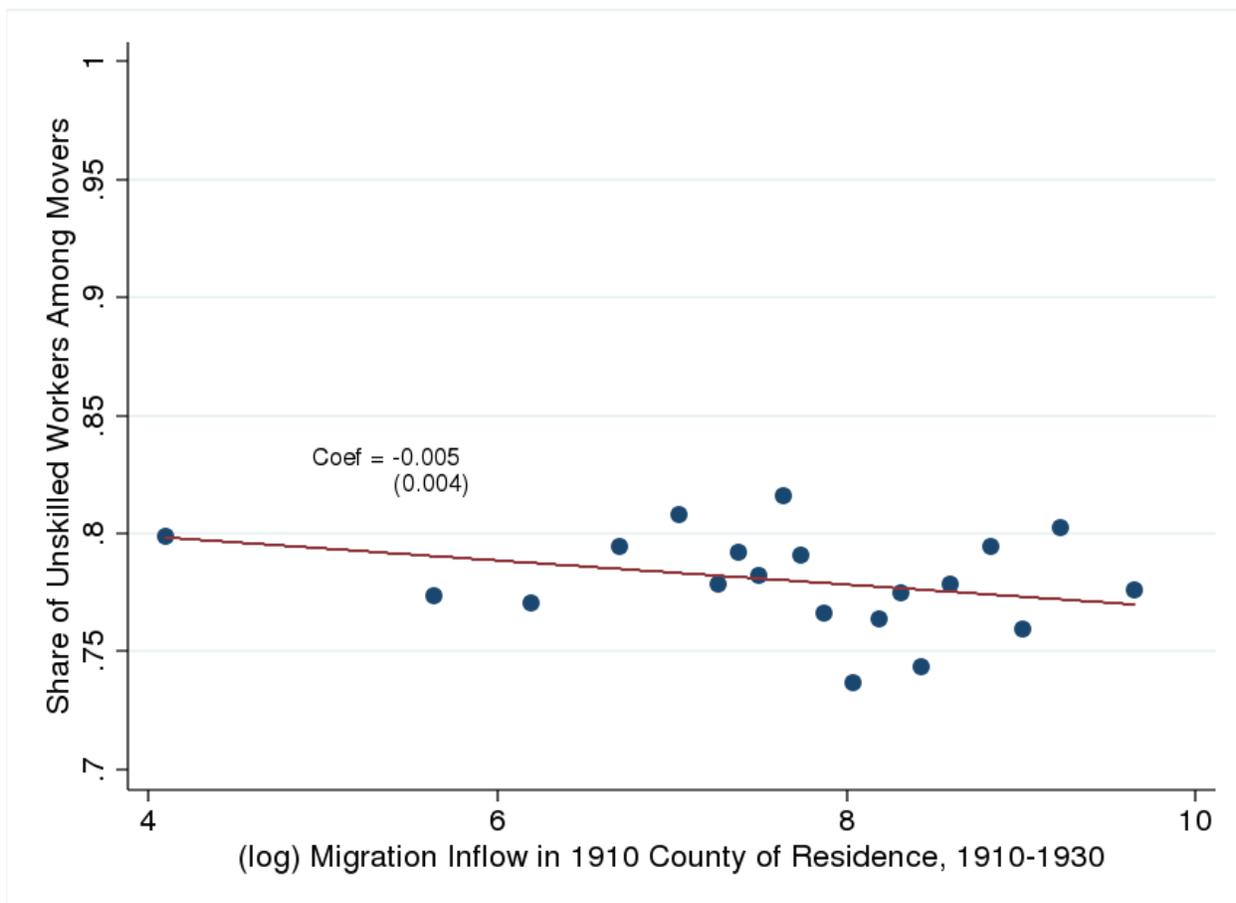


Figure 4: Employment Rates and Migration Inflow



*Notes:* The figure presents a binned scatter plot, grouping northern-born blacks in the sample in (log) migration inflow percentiles and plotting the share employed in the corresponding year. County-level characteristics and 1910 state of residence dummies are controlled. According to IPUMS, persons were considered employed if they were at work on the reference day, which is the day the census was taken for 1910 and the previous regular working day for 1930.

Figure 5: Share of Unskilled Movers vs. Migration Inflow



*Notes:* The figure presents a binned scatter plot, grouping movers in the sample in (log) migration inflow percentiles and plotting the share of movers who are unskilled workers within each group. Individual-, family-, county-level characteristics, and 1910 state of residence dummies are controlled.

Table 1: Descriptive Statistics of Black Northerners, 1910

VARIABLES	Obs.	Mean	Std. Dev.	Min	Max	Median
<b>Panel A. Individual Characteristics</b>						
Age	12,623	7.755	5.068	0	17	7
Mulatto	12,623	0.300	0.458	0	1	0
Attending School	12,623	0.538	0.499	0	1	1
Stayed in Birth State	12,623	0.936	0.245	0	1	1
In Owner-occupied Housing	12,623	0.229	0.420	0	1	0
Live on Farm	12,623	0.085	0.278	0	1	0
<b>Panel B. Head of Household Characteristics</b>						
Age	12,623	40.15	9.451	18	91	39
Literate	12,623	0.848	0.359	0	1	1
Married	12,623	0.908	0.289	0	1	1
Mulatto	12,623	0.261	0.439	0	1	0
Female	12,623	0.091	0.287	0	1	0

Table 2: Summary Statistics by the Degree of Migration Inflow

VARIABLES	All		High-Migration		Low-Migration	
	1910	1930	1910	1930	1910	1930
Employed	0.956	0.867	0.957	0.857	0.954	0.876
Occupational Earnings Score	694.1	777.7	731.2	817.3	657.4	738.4
Percentile Rank	29.58	33.49	32.25	36.20	26.94	30.81
<i>Occupation Categories</i>						
White-collar Jobs	0.072	0.129	0.098	0.169	0.046	0.089
Blue-collar Jobs	0.053	0.073	0.057	0.075	0.049	0.070
Unskilled Jobs	0.786	0.783	0.828	0.750	0.744	0.816
Farmers	0.089	0.015	0.017	0.006	0.161	0.025
Obs.	12,623		6,280		6,343	

Table 3: Migration and Black Northerners' Employment

	(1)	(2)	(3)	(4)
	OLS	2SLS	2SLS	2SLS
<b>Panel A. Prob. of Employment</b>				
(log) Mig. Inflow	-0.006** (0.003)	-0.013* (0.007)	-0.012** (0.006)	-0.027*** (0.010)
Mean DV	0.867	0.867	0.867	0.864
<b>Panel B. Percentile Rank</b>				
(log) Mig. Inflow	0.421*** (0.143)	0.603** (0.275)	0.556** (0.252)	1.293*** (0.460)
Mean DV	33.49	33.49	33.49	33.97
<b>Panel C. (log) <i>EarningsScore</i><sup>a</sup></b>				
(log) Mig. Inflow	0.008*** (0.003)	0.014** (0.006)	0.013** (0.006)	0.030** (0.012)
Mean DV	6.614	6.614	6.614	6.624
<i>Controls:</i>				
White Pop Change			X	X
County Characteristics 1880			X	X
Stayer Only				X
Observations	12,623	12,623	12,623	7,234
County	151	151	151	149
Kleibergen Paap F-stat		30.96	41.59	34.42

county cluster-robust standard errors in parentheses

\*\*\* p<0.01, \*\* p<0.05, \* p<0.1

*Note:* All regressions include individual-level, family-level and county-level controls, as well as state fixed effects.

Table 4: Alternative Measures for Occupational Earnings

	(1)	(2)	(3)	(4)
	OLS	2SLS	2SLS	2SLS
<b>Panel A. (log) Occscore</b>				
(log) Mig. Inflow	0.013*** (0.004)	0.022** (0.008)	0.022*** (0.008)	0.039*** (0.014)
Mean DV	2.953	2.953	2.953	2.961
<b>Panel B. (log) EarningsScore<sup>b</sup></b>				
(log) Mig. Inflow	0.007** (0.003)	0.012** (0.006)	0.011** (0.006)	0.025** (0.011)
Mean DV	6.592	6.592	6.592	6.601
<i>Controls:</i>				
White Pop Change			X	X
County Characteristics 1880			X	X
Stayer Only				X
Observations	12,623	12,623	12,623	7,234
County	151	151	151	149
Kleibergen Paap F-stat		30.96	41.59	34.42

county cluster-robust standard errors in parentheses

\*\*\* p<0.01, \*\* p<0.05, \* p<0.1

*Note:* All regressions include individual-level, family-level and county-level controls, as well as state fixed effects.

Table 5: Migration and Prob. of Employment by Skill Level

	Northern-born Blacks				Northern-born Whites			
	(1) OLS	(2) 2SLS	(3) 2SLS	(4) 2SLS	(5) OLS	(6) 2SLS	(7) 2SLS	(8) 2SLS
<b>Panel A. Unskilled Workers</b>								
(log) Mig. Inflow	-0.009*** (0.003)	-0.015** (0.007)	-0.015** (0.006)	-0.032*** (0.010)	0.008* (0.004)	0.006 (0.007)	0.006 (0.008)	0.015 (0.013)
Mean DV	0.860	0.860	0.860	0.853	0.896	0.896	0.896	0.887
Observations	9,918	9,918	9,918	5,718	3,908	3,908	3,908	2,242
County	150	150	150	148	128	128	128	118
Kleibergen Paap F-stat		33.19	44.02	35.86		26.06	37.92	31.95
<b>Panel B. Skilled Workers</b>								
(log) Mig. Inflow	0.003 (0.005)	-0.003 (0.011)	-0.001 (0.010)	-0.010 (0.020)	-0.001 (0.002)	0.005 (0.007)	0.002 (0.007)	0.003 (0.010)
Mean DV	0.891	0.891	0.891	0.903	0.920	0.920	0.920	0.917
Observations	2,705	2,705	2,705	1,516	6,822	6,822	6,822	3,916
County	145	145	145	123	128	128	128	128
Kleibergen Paap F-stat		18.22	28.86	19.52		22.44	29.94	23.90
<i>Controls:</i>								
White Pop Change			X	X			X	X
County Characteristics 1880			X	X			X	X
Stayer Only				X				X

county cluster-robust standard errors in parentheses

\*\*\* p<0.01, \*\* p<0.05, \* p<0.1

*Note:* Following definition in Ferrie (1996), unskilled includes operatives and kindred workers; private household workers; service workers, except private household; farm laborers and foremen; laborers, except farm and mine. All regressions include individual-level, family-level and county-level controls, as well as state fixed effects.

Table 6: Migration and Labor Force Status

	(1)	(2)	(3)	(4)
	OLS	2SLS	2SLS	2SLS
(log) Mig. Inflow	0.003 (0.002)	-0.006 (0.004)	-0.006 (0.004)	-0.004 (0.005)
Mean DV	0.912	0.912	0.912	0.918
Observations	13,837	13,837	13,837	7,884
County	151	151	151	150
Kleibergen Paap F-stat		31.02	41.96	35.71
<i>Controls:</i>				
White Pop Change			X	X
County Characteristics 1880			X	X
Stayer Only				X

county cluster-robust standard errors in parentheses

\*\*\* p<0.01, \*\* p<0.05, \* p<0.1

*Note:* The same set of counties from Table 3 are used in the white sample. A few counties are dropped because they do not have linked white residents or did not pass the sample restriction. All regressions include individual-level, family-level and county-level controls, as well as state fixed effects.

Table 7: Probability of Black Northerners Holding Certain Occupation in 1930

Dependent Variable	(1) White Collar	(2) Blue Collar	(3) Unskilled	(4) Farmer
<b>Panel A. OLS Estimates</b>				
(log) Mig. Inflow	0.005** (0.003)	-0.002 (0.003)	-0.005 (0.004)	0.001 (0.002)
<b>Panel B. 2SLS Estimates</b>				
(log) Mig. Inflow	0.012** (0.005)	0.003 (0.004)	-0.013** (0.006)	-0.002 (0.003)
Mean DV	0.129	0.073	0.783	0.015
Observations	12,623	12,623	12,623	12,623
County	151	151	151	151
Kleibergen Paap F-stat	41.59	41.59	41.59	41.59
<i>Controls:</i>				
White Pop Change	X	X	X	X
County Characteristics 1880	X	X	X	X

county cluster-robust standard errors in parentheses

\*\*\* p<0.01, \*\* p<0.05, \* p<0.1

*Note:* Following definition in Ferrie (1996), **white collar** workers are professional, technical, and kindred workers; managers, officials, and proprietors, except farm; clerical and kindred workers; sales workers; **blue collar** workers includes craftsmen, foremen, and kindred workers; **unskilled** workers includes operatives and kindred workers; private household workers; service workers, except private household; farm laborers and foremen; laborers, except farm and mine; **farmer** includes farmers and farm managers (including farm tenants).

Table 8: Migration and Rank by Skin color and Father's SES status

	Skin Color		SES Status	
	Dark	Light	Low	High
<b>Panel A. OLS Estimates</b>				
(log) Mig. Inflow	0.399** (0.171)	0.525** (0.257)	0.306** (0.154)	0.552** (0.219)
<b>Panel B. 2SLS Estimates</b>				
(log) Mig. Inflow	0.493* (0.286)	0.972** (0.435)	0.279 (0.258)	0.925** (0.450)
Mean DV	32.27	36.34	30.44	35.88
Observations	8,832	3,791	5,541	7,082
County	150	141	150	147
Kleibergen Paap F-stat	46.10	19.95	29.58	41.57
<b>Panel C. 2SLS Estimates (Stayer Only)</b>				
(log) Mig. Inflow	1.073** (0.504)	2.000** (0.830)	0.896* (0.483)	1.962*** (0.608)
Mean DV	32.48	37.25	29.81	36.75
Observations	4,969	2,265	2,893	4,341
County	147	124	140	135
Kleibergen Paap F-stat	39.08	14.11	26.59	29.31

county cluster-robust standard errors in parentheses

\*\*\* p<0.01, \*\* p<0.05, \* p<0.1

*Note:* All regressions include individual-level, family-level and county-level (including white population change and 1880 county characteristics) controls, as well as state fixed effects.