(The Great) Migration and those Left Behind

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Abstract

We study the economic impact that out-migration imposes on those who remain behind and do not migrate. We build a shift-share instrument for the migration rate of Black Americans out of Southern counties during the Great Migration using shocks to manufacturing employment in Northern cities. We address selection into migration using newly-available longitudinal Census data that allows us to analyze changes in outcomes of non-migrating Black residents. Our results indicate that out-migration increases the income of those who do not migrate. This effect is larger for farming occupations, suggesting that changes in local labor supply are an important mechanism. Our results inform policies to encourage migration away from less productive areas.

1 Introduction

Empirical studies of domestic migration in the United States have examined the effects of migration on outcomes of the migrants, local labor markets, and the housing market (Jia et al. 2023). Though there has been an increasing focus on "left-behind" populations (Austin, Glaeser, and Summers 2018), and in the presence of human capital externalities we would expect out-migration to affect the productivity and employment of those who do not migrate (Moretti 2004), we are not aware of research that studies how out-migration itself directly affects the economic opportunities of those who do not migrate.

The lack of research on this issue may be driven by econometric challenges. Those who do not migrate may be directly affected by both out-migration as well as the push factors that led their neighbors to out-migrate. It is difficult to disentangle these two effects empirically. To address these challenges, we study a time period during which migration patterns shifted sharply - the Great Migration - which allows us to use an instrumental variables approach.

In this paper, we investigate the economic impact that out-migration imposes on incumbent residents using newly-available longitudinal Census data. Using the Great Migration of Black Americans from the South during the 1940s, we aim to estimate the effect of positively-selected out-migration on economic outcomes for Black communities "left-behind" in the South. We examine outcomes including income and occupation status.

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2 Data

Our main data source is the full-count 1940 and 1950 decennial censuses from IPUMS (Ruggles, Fitch, Goeken, et al. 2024). We use this data to construct our instrument by measuring the growth in non-Black manufacturing employment in Northern cities and the migrant network links between Southern counties and Northern cities. Data for our explanatory variable, the net out-migration rates of the Black population from Southern counties between 1940 and 1950, comes from Boustan (2016). We restrict our analysis to Southern counties that experienced net Black out-migration between 1940 and 1950.

We also restrict our analysis to Black Southerners who lived in same Southern county in 1940 and 1950. To link individuals' 1940 and 1950 census records, we use crosswalks constructed by the Multigenerational Longitudinal Panel (MLP) project (Ruggles, Fitch, Helgertz, et al. 2024). In conjunction with 1940 and 1950 full-count censuses, the crosswalks from the MLP project allows us to link individuals, both men and women, across the 1940 and 1950 census waves.

Using these crosswalks, we measure the change in occupational income score (OCCSCORE), wage income, and likelihood of being in a professional occupation among individuals between 1940 and 1950. Occscore is a variable in the census that corresponds to the median total income (in hundreds of 1950 dollars) of all individuals for a given occupation. We use this continuous measure of occupations as a proxy for occupational income. For income, we use the census variable for wage and salary income (INCWAGE), which specifies all earnings received as an employee over the previous year. Lastly, we measure the likelihood of being in a professional occupation using the census variable OCC1950, which categorizes individuals' occupations using the 1950 classification. Using these data sources allow us to address the endogeneity concerns described below.

3 Empirical Strategy

We face two main endogeneity concerns in answering our research question. First, economic conditions in an area may push people to leave that area and directly affect the outcomes of those who don't move. Second, if migrants are positively selected (on ability), we would expect those who stay in places that experience more out-migration to be lower in the ability distribution than those who stay in places with less out-migration.

3.1 Amount of Out-Migration

We create a shift-share instrument for each Southern county's net Black out-migration rate. This instrument aims to isolate net out-migration that is unrelated to changes in economic conditions in the county. The instrument uses two forms of variation: variation in connections between Southern counties and Northern cities in 1940, and variation between Northern cities in the growth of manufacturing employment among non-Black individuals during the 1940s.

We construct the shift-share instrument z_i for net black out-migration from Southern

county i between 1940 and 1950 as follows:

$$z_i = \sum_k s_{ik} g_k \tag{1}$$

where, following the notation of Borusyak, Hull, and Jaravel (2022), s_{ik} (share) is the share of the Black migrant population of county i that moved to city k between 1935 and 1940, and g_k (shift, or shock) is the percent growth in the number of non-Black manufacturing employees in city k between 1940 and 1950.

We use the 1940 full count Census to calculate the shares s_{ik}. The 1940 full count Census records where Black individuals who moved to Northern cities lived in both 1935 and 1940. We define

$$s_{ik} = \frac{\text{Number of Black migrants from } i \text{ to } k \text{ between 1935 and 1940}}{\text{Total number of Black migrants from } i \text{ between 1935 and 1940}} \tag{2}$$

The shocks g_k measure the percent growth in the number of non-Black manufacturing employees in city k between 1940 and 1950. Our contention is that growth in this industry attracted Blacks to move from Southern counties to Northern cities, but is otherwise unrelated to economic conditions in Southern sending counties. Our data for g_k comes from the 1940 full count Census and 1950 full count Census.

3.2 Selection of Migrants

We use panel data to address the fact that, if out-migrants are positively selected on ability, non-migrants will be different in places with low versus high levels of out-migration. We use the changes in outcomes among individuals over time as our dependent variables to difference-out the impact of time-invariant individual qualities such as ability.

We find suggestive evidence of selection among non-migrants by analyzing our outcome variables in levels instead of first-differences. In Table 1, we find that out-migration has a negative effect on the level of income in 1940 among those who don't move, and on the level of occupation score in 1940 as well once we control for individual characteristics. We believe these results show evidence of selection in the non-migrant population: income and occupation score (among those who don't move) may be lower in counties with more out-migration because those who remain are lower in the ability distribution than those who remain in counties with less out-migration.

Table 1: Effect of Out-Migration on 1940 Outcomes of Black Stayers

	Occupation score (1940)		Income (1940)	
	(1)	(2)	(3)	(4)
Net Black out-migration rate	-0.071	-0.160**	-5321.454*	-5162.400*
	(0.069)	(0.068)	(3123.892)	(3054.502)
Observations	481	481	481	481
Individual Controls	No	Yes	No	Yes
Effective F-statistic for IV	7.1	7.2	7.1	7.2

Note: The dependent variables are measured at the individual level in 1940 using full count Census data. The county-level net out-migration rate is from Boustan 2016, instrumented for using a shift-share instrument. Following Borusyak, Hull, and Jaravel 2022, these shift-share regressions are run at the city level, for Northern cities that received Black out-migrants from the South in 1940. Individual-level control variables are measured in 1940, and are age, marital status, employment status, and gender. *** indicates significance at the 1% level.

3.3 Estimating equation

Our main estimating equation is:

$$\Delta_{1940,1950}\, y_n = \alpha + \beta x_i + \gamma \mathbf{c_n} + \epsilon_n \tag{3}$$

where Δy_n is the growth in income, occupational score, or professional status for individual n in county i between 1940 and 1950, x_i is the net Black out-migration rate of Southern county i between 1940 and 1950, and $\mathbf{c_n}$ is a vector of individual-level control variables. We instrument for x_i using the shift-share instrument z_i described above. We run our regressions at the level of the shocks as suggested by Borusyak, Hull, and Jaravel 2022.

4 Preliminary Results

We find that out-migration increases income of those who do not migrate, perhaps because it reduces aggregate labor supply. However, out-migration does not seem to promote those who remain to move into higher status occupations (in fact, it may do the opposite). We will continue to investigate mechanisms behind these results in the future.

Table 2: Effect of Out-Migration on Changes in Outcomes of Black Stayers

	Change in occupation score		Change in income		Change in log income		Change in professional	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Net Black out-migration rate	-0.007**	0.002	0.146***	0.121***	0.053***	0.059***	-0.006*	-0.006
	(0.003)	(0.003)	(0.043)	(0.030)	(0.012)	(0.011)	(0.004)	(0.004)
Observations	481	481	481	481	481	481	476	474
Individual Controls	No	Yes	No	Yes	No	Yes	No	Yes
Effective F-statistic for IV	7.1	7.2	7.8	7.9	7.2	7.3	7.6	7.7

Note: Regressions at the shock (city) level, for Northern cities that received Black out-migrants from the South in 1940. The dependent variables are changes measured at the individual level between 1940 and 1950 using full count Census data. The county-level net out-migration rate is from Boustan 2016, instrumented for using a shift-share instrument. Individual-level control variables are measured in 1940, and are age, marital status, employment status, and gender. *** indicates significance at the 1% level.

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