Immigration and Native Intergenerational Mobility in the United States

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Abstract

Immigration continues to shape the economic and political debate in the United States. Yet, we know surprisingly little about the impact of immigration on the economic mobility of native children. Using recent data on changes in mobility and an identification strategy based on initial settlement patterns of immigrants, I study whether the large increase in the immigrant population between 1980 and 2010 had an impact on native intergenerational mobility. Despite concerns about immigration hurting native children, I find that the impact of immigration on native mobility is statistically insignificant. Moreover, I can rule out economically large effects. I show that this result can be explained by the insignificant impact of immigration on socioeconomic mechanisms previously associated with intergenerational mobility, such as parental employment or incarceration rates.

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1 Introduction

Immigration has been one of the key factors shaping the public debate in the United States for decades. Concerns about immigration take various forms, and its potential impact on children continues to be among the perceived negative effects. A news article from twenty years ago cited complaints that schools were using their resources for non-English-speaking students at the expense of native children (The Wall Street Journal 2005). Headlines in 2024 mirrored those from two decades earlier, with reports describing immigration as hitting America's classrooms (The Wall Street Journal 2024).

In addition to the public concerns about immigrants reducing resources available for native children in schools, recent academic research has shown how major demographic shifts can be detrimental for intergenerational mobility. The importance of childhood location in shaping later-life outcomes has been studied extensively (see Chyn and Katz 2021 for a review), and it is well-known that the intergenerational mobility of poor children varies substantively across space (Chetty and Hendren 2018). Yet, Derenoncourt (2022) has shown in the context of the Great Migration (1940-1970) that large waves of migration can have significant negative impacts on intergenerational mobility in destination locations. Similar to the Great Migration of Black Americans from the South to the North, where the share of Black people in Northern commuting zones studied by Derenoncourt (2022) increased from 4.3% to 8.8%, the large increase in the immigrant population between 1980 and 2010 also represents a profound demographic change, with the share of foreign-born population rising from 6.2% to 12.9% in a timespan of thirty years.

As Zimmerman (2008) explained in a policy review, despite the large literature on the economic impacts of immigration, there remains a gap in our understanding of how immigrants affect native intergenerational mobility. This paper seeks to address this gap in the literature. I bring together data on changes in intergenerational mobility recently made available by Chetty et al. (2024), immigration, local public finances, crime statistics, parental employment rates, and racial composition of schools to assess the impact of immigration on native intergenerational mobility.

My empirical strategy relies on a version of the shift-share design commonly used in the immigration literature to isolate plausibly exogenous variation in the exposure to immigration between 1980 and 2010 across US commuting zones. More specifically, I predict immigrant inflows to a commuting zone by interacting the initial settlement patterns of immigrants from different countries of origin with subsequent flows from each country, excluding the flows to the commuting zone itself. This is in line with the "leave-out" approach in Tabellini (2020). The identifying assumption, following Goldsmith-Pinkham, Sorkin, and Swift (2020), will be interpreted as the exogeneity of the initial settlement patterns with respect to the unobserved determinants of changes in intergenerational mobility, conditional on the set of observables I include in the model.

I find that increased exposure to immigration does not have a statistically significant impact on changes in intergenerational mobility. Admittedly, failure to reject the null of no effects does not rule out the existence of an effect. I compare my results to those of Derenoncourt (2022), as the Great Migration represents a demographic change of comparable magnitude. I show that the estimates are sufficiently precise to rule out even relatively small effects.

In order to establish the validity and robustness of my results, I take several steps. My initial set of controls includes the 1980 share of foreign-born population in a commuting zone. Including this share ensures that the results do not rely on comparisons between commuting zones with high versus low shares of foreign-born population in the baseline year. Instead, the effects are identified from country-of-origin variation within the immigrant population across commuting zones (see Tabellini 2020, Borusyak, Hull, and Jaravel 2022, and Boustan, Cai, and Tseng 2024). In addition to my baseline controls, I follow the procedure in Abramitzky et al. (2023) and Boustan, Cai, and Tseng (2024), and search for additional correlates of initial settlement patterns of large immigrant groups among a broad set of variables using Lasso. I then include the covariates selected by this procedure in an alternative specification to test robustness. As an additional check, I use all covariates, including those not in my baseline covariates and not chosen by Lasso. The results remain qualitatively unchanged across specifications. I also check the sensitivity of my results to alternative choices of sample, functional form, and variable definitions. The main conclusions continue to hold across a broad set of robustness exercises.

Given the conclusion that immigration does not have a statistically significant impact on native intergenerational mobility, I investigate whether this can be rationalized by an absence of an effect on socioeconomic mechanisms that have previously been associated with changes in intergenerational mobility. Chetty et al. (2026) suggest that increasing parental employment rates leads to increases in children's earnings. I show that immigration does not significantly affect parental employment rates.

Similarly, immigration does not have a statistically significant impact on most mechanisms identified in Derenoncourt (2022) as drivers of the decline in intergenerational mobility following the Great Migration. Specifically, I find no significant effects of immigration on incarceration rates, murder rates, police spending, or private school enrollment at the commuting zone level. I also investigate whether immigration leads to increased per-pupil spending, which closely relates to the discussion of the impact of immigration on schools in The Wall Street Journal (2024). Although the point estimate is positive, the effect is statistically insignificant.

Evidence on the impact of immigrants on the intergenerational mobility of natives is scant. Hoen, Markussen, and Røed (2022) examine the effect of immigration on native mobility in the context of Norway, and find negative effects. My work differs from theirs both in terms of the empirical strategy, and also in terms of the object of interest. Hoen, Markussen, and Røed (2022)

use a fixed-effects based approach and focus on the relative mobility of children from different parental backgrounds in the same geographic region. In this paper, I use the canonical shift-share design incorporating the most recent methodological advances, and compare changes in mobility for low-income children across commuting zones exposed to different levels of immigration.[1]

Abramitzky et al. (2021) focus on the intergenerational mobility of immigrants relative to that of natives, and find that both in the past and today, immigrants from nearly all countries have higher intergenerational mobility. This paper shows that the higher intergenerational mobility of immigrants is not coming at the expense of native children.

By exploring whether immigrants have an impact on mechanisms associated with intergenerational mobility, my paper also contributes to the literature on the effects of immigration on local public finances, crime, and segregation. Spenkuch (2014) found that immigration leads to increases in non-violent crimes, but not in violent crimes. In recent work, Abramitzky et al. (2024) showed that, contrary to popular perceptions, immigrants actually have lower incarceration rates than natives. This finding may help explain the lack of an association between immigration and crime statistics in this paper.

As part of the mechanisms studied, I also investigate whether immigration leads to increased school segregation. The previous literature has found evidence of native/White flight in the context of schooling (see, e.g., Betts and Fairlie 2003 or Farré, Ortega, and Tanaka 2018 for the effects of immigrants as a whole; Cascio and Lewis 2012 for the effects of Hispanics; and Boustan, Cai, and Tseng 2024 for the effects of Asians). In this paper I do not find a statistically significant impact in terms of flight to private schools. Several potential reasons could explain this difference, such as variations in empirical strategy (e.g., whether the comparisons are made across geographical units that belong to the same broader region) and differences in the exact research question (e.g., private school enrollment rates versus movements across school districts).

The remainder of the paper is organized as follows. In Section 2, I summarize my data sources. In Section 3 I briefly describe the historical context, and provide comparisons to the case of the Great Migration which I later use as a benchmark. In Section 4, I outline my empirical strategy. In Section 5, I present the results. In Section 6, I investigate the impact of immigration on economic and social mechanisms associated with intergenerational mobility. Section 7 concludes.

[1]There are two recent working papers that also study the impact of immigrants on native mobility in the US, and the results in this paper were reached independently of them. Borgschulte et al. (2025) find that immigration to an area between 1980 and 1990 is associated with higher native mobility. My paper differs from theirs by using data on changes in mobility rather than levels. There are other aspects of design that differ between the two works (such as controlling for the initial shares of immigrants, which allows me to isolate variation based on compositional differences between immigrant populations across commuting zones). The other closely related paper is historical work by Feigenbaum et al. (2025) focusing on the US in the early 20th century. Feigenbaum et al. (2025) use a similar empirical strategy to this paper and study the impact of 1920s immigration acts, which greatly reduced immigration from Southern and Eastern Europe. They find that immigration quotas reduced intergenerational mobility among US-born White men, and had no impact on Black men.

2 Data

I combine data from IPUMS (Schroeder et al. 2026), Opportunity Insights (Chetty et al. 2024), Derenoncourt (2022), and NCES (National Center for Education Statistics 2024). From IPUMS, I obtain data on the number of foreign-born individuals from a given birth country for all the counties across the US in 1980, 1990, 2007 and 2010[2], which I then aggregate at the commuting zone level. A commuting zone represents a local labor market in the US, and is the unit of analysis throughout the paper. I also obtain data on the baseline characteristics of commuting zones using IPUMS, including the share of employment in different industries, income levels, age structure, family composition, racial composition, education levels, urbanization rates, housing markets, and the total numbers of native and immigrant populations. Throughout the paper, I use the terms foreign-born and immigrant interchangeably, and refer to 1980 as the baseline year except in some robustness checks.

From Opportunity Insights, I obtain estimates of intergenerational mobility changes between the 1978 and 1992 birth cohorts for children born to parents at different percentiles of the income distribution. Children's income is measured at age 27, and parental income is measured as the average income when the child is aged 13-17 (Chetty et al. 2026). Percentiles of income for children are then calculated based on their rank relative to all children in the same birth cohort, and similarly, income percentiles for parents are based on their rank relative to all parents who have children in the same birth cohort (Chetty et al. 2026).

Chetty et al. (2026) estimate changes in intergenerational mobility between the 1978 and 1992 birth cohorts in two steps which I summarize here. In the first step, their goal is to estimate children's expected adulthood income given their county of residence from birth, parental income percentile, racial and ethnic group, and birth cohort. In practice, since there are not enough observations to estimate these conditional means non-parametrically, they use a univariate regression to estimate a child's adulthood income as a function of the parental income percentile, separately within each county-by-race-by-cohort cell. Importantly, to account for children moving across counties, they weight their estimates by the number of years a child spends in a county before age 18. They then use the predictions from the first step in a univariate regression on birth cohort within each county-by-race-by-parental income cell to arrive at an estimate of the changes in mobility between the two birth cohorts.

Throughout the analysis, I focus on the changes in intergenerational mobility for children born to parents at the 25th percentile of the income distribution, but I also present results for children born to parents at the 50th and 75th percentiles of the distribution. The data I obtain also include information on parental employment rate changes between these two cohorts. [3]

[2]The data for 2007 is based on the 2005-2009 ACS, and the data for 2010 uses the 2008-2012 ACS.

[3]Opportunity Insights also provides an accompanying reliability measure for their estimates of changes in mobility.

Appendix Table 1 contains summary statistics of the main variables used in the analysis. The first two rows summarize the distribution of changes in intergenerational mobility across commuting zones, and echo the findings of overall declining mobility for White children and improving mobility for Black children in Chetty et al. (2026). The third row relates to the distribution of the change in the number of foreign-born residents relative to the initial population. For each commuting zone, I take the difference between the number of foreign-born population in 2010 and 1980 and divide it by the total population in 1980 (and then multiply by 100 so that the units are percentage points). These statistics show the sizeable increase in the number of immigrants between the years studied in US commuting zones, and also reveal that the distribution of increases was highly right-skewed. I interpret the magnitude of these changes in greater detail in Section 3. The remaining rows show the distribution of key baseline characteristics across commuting zones.

I also obtain data on private school enrollment rates, incarceration rates, crime statistics, and local public finances from Derenoncourt (2022). Data on private school enrollment rates are originally from IPUMS NHGIS, and I use data on changes in the total, White, and Black private school enrollment rates. I focus on changes between 1980 and 2000 since data on private school enrollment rates by race is not available in 2010. Data on incarceration rates and murder rates were originally sourced from In Our Backyards Database of Vera Institute of Justice, and I use changes in incarceration rates and murder rates between 1980-2010. Finally, data on local public finances are originally from surveys of states and sub-state level governments conducted by the US Census Bureau. For public finance variables, I focus on changes between 1982 and 2012.

I use data from the NCES Public School Universe Survey to analyze the racial composition of public schools. These data start from the 1987–1988 academic year. I use these data to show that children from the 1978 birth cohort had significantly fewer classmates of Hispanic and Asian origin compared to children from the 1992 birth cohort in areas more exposed to increased immigration between 1980 and 2010. I detail the crosswalks used to map different geographical units to commuting zones in the Appendix.

3 Migration to the United States Between 1980 and 2010

The United States experienced a dramatic increase in the number and share of immigrants between 1980 and 2010. The number of foreign-born people increased from 14.1 to 40.1 million, and their share in the population went up from 6.2% to 12.9% (US Census Bureau 2024). The rise in the share experienced over a span of thirty years is unprecedented since 1850 (US Census Bureau 2024).

This measure is not available for estimates that are based on limited data and/or have high standard error. Throughout my analysis, I drop commuting zones where a reliability estimate is not provided for the outcome of interest.

In order to interpret the magnitudes of my estimates in Section 5, I will draw on similarities with the Great Migration explored in Derenoncourt (2022). As described in Section 1, the increase in the share of foreign-born population in the US from 1980 to 2010 is slightly larger than the increase in the share of Black population during the Great Migration in commuting zones studied by Derenoncourt (2022). As another point of comparison, the average share of the Black population in Derenoncourt (2022)'s sample of commuting zones was around 2.4% in 1940 and went up to 4.2% in 1970. In the context of the recent wave of immigration, the average share of the foreign-born population rose from 2.5% in 1980 to 5.2% in 2010 across commuting zones in the US.[4] These numbers suggest that both shocks are similar in magnitude, and the results reported in Derenoncourt (2022) offer a useful benchmark for interpreting my estimates.

In the main analysis, I focus on the effects of this major episode of immigration on the intergenerational mobility of children born to parents at the 25th percentile of the national income distribution in 1978 and 1992 birth cohorts. One might be concerned about the fact that the time windows for available data on changes in mobility and immigration do not perfectly overlap. However, this approach can still be reasonable, if the children from the 1992 birth cohort were more exposed to immigrants relative to the 1978 cohort in places that had a higher increase in the share of immigrants between 1980 and 2010. It is natural to expect that the difference in exposure would primarily occur during childhood, as the number of immigrants was still rising rapidly during early ages of the 1978 cohort. Figure 1 shows that for the 1992 birth cohort, the average share of Hispanic and Asian students during their school years was much higher than for the 1978 birth cohort in areas more exposed to immigration between 1980 and 2010, supporting the link between my dependent and independent variables.[5]

4 Empirical Strategy

As my main goal is to understand the relationship between exposure to immigration during 1980–2010 and intergenerational mobility changes, I estimate the following equation:

$$\Delta \bar{y}_{CZ}^{1978-1992} = \alpha + \beta Immigration_{CZ}^{1980-2010} + \gamma X_{CZ}^{1980} + \varepsilon_{CZ} \tag{1}$$

where $\Delta \bar{y}_{CZ}^{1978-1992}$ is the estimated change in average adulthood household income rank be-

[4]The reason for the increase in the nation-wide share of foreign-born population being larger than the increase in the average share across commuting zones is that increases in foreign-born population are concentrated in larger commuting zones. (The average population in commuting zones that are in the bottom quartile of the increase in immigration measure described in Section 2 is approximately 131,000, compared with an average population of roughly 695,000 in the top quartile).

[5]When constructing the share of students from different racial backgrounds at the commuting zone level, I drop schools where race data are not available. I also do not include in the analysis school districts that belong to more than a single commuting zone.

tween 1978 and 1992 birth cohorts for children born to parents at the 25th percentile of the income distribution[6]. $Immigration_{CZ}^{1980-2010}$ is the percentile of the change in the number of foreign-born residents between 1980 and 2010 as a share of 1980 population. To construct this variable, I first calculate the change in the number of foreign-born residents in a commuting zone between 1980 and 2010, and then divide it by the total population in 1980. Instead of using this variable directly, which is highly right-skewed, I use its percentiles, following the approach in Sequeira, Nunn, and Qian (2020) and Derenoncourt (2022).[7] Finally, X_{CZ}^{1980} represents the baseline characteristics of the commuting zone in 1980. I control for a comprehensive set of baseline characteristics, including the share of employment in different industries, employment-to-population ratio and unemployment rate, income per capita, share of college graduates, share of the population aged 65 and older, log of total population, and share of foreign-born population. The vector of controls also includes Census division fixed effects.[8] As a result, the effects are estimated through comparisons to other commuting zones in the same division. [9]

A key concern with equation 1 is that the change in the share of foreign-born residents might be correlated with unobserved factors that affect intergenerational mobility. For instance, immigrants might be choosing places with improving economic conditions, which might also positively impact intergenerational mobility. One can think of other forms of endogeneity that might go in the opposite direction, such as the immigrants locating in declining areas, say, due to lower rents.

In order to address these concerns, I adopt the shift-share design, as applied to the immigration setting in Card (2001). The instrument relies on the fact that incoming immigrants are more likely to settle in locations where their ethnic community is larger. As a result, commuting zones with larger initial shares of high-inflow groups receive more immigration. I use a leave-out version of this instrument, as in Tabellini (2020). Specifically, I instrument for the percentile of the change in the number of foreign-born residents between 1980 and 2010 as a share of 1980 population using the percentiles of the following variable:

$$Z_{CZ} = \frac{1}{P_{CZ}^{1980}} \sum_{j} \alpha_{j,CZ}^{1980} \Delta O_{j,-CZ}^{1980-2010} \tag{2}$$

[6] I also provide results in Section 5 where I use individual income rank of the children instead of their household income rank as well as results where I focus on changes for children born to parents at different percentiles of the income distribution.

[7] Appendix Figure 1 depicts the measure of immigration before (y-axis) and after (x-axis) taking the percentiles. To illustrate further how the final measure is calculated, consider Rochester, MN, one of the commuting zones depicted in Appendix Figure 1. I subtract the number of foreign-born individuals in Rochester in 1980 from the number of foreign-born individuals in 2010, and then divide by the commuting zone's total population in 1980. I do this for all commuting zones, and then take the percentiles. In Section 5 I also present results where I use the changes directly.

[8] Census division refers to nine large geographic units used by the US Census Bureau (US Census Bureau, nd). There are, on average, 82 commuting zones in a Census division.

[9] Additional details about the construction of the variables can be found in the Appendix.

where $\alpha_{j,CZ}^{1980}$ is the share of individuals in the US born in country j who were living in commuting zone CZ in 1980; $\Delta O_{j,-CZ}^{1980-2010}$ is the increase between 1980 and 2010 in the number of individuals born in country j who are living in the United States, excluding commuting zone CZ; and P_{CZ}^{1980} represents the population of commuting zone CZ in 1980.

I estimate equation 1 separately for non-Hispanic White and Black residents, using the changes in their intergenerational mobility as the dependent variable. Data on mobility changes that I obtain from Opportunity Insights do not have a breakdown of upward mobility measures by whether the parents were born in the United States or outside. In order to measure intergenerational mobility among natives, I rely on the mobility numbers provided for non-Hispanic White and Black populations. This approach is reasonable since most immigration to the United States between 1980 and 2010 came from Latin America and Asia, and these immigrants are unlikely to self-identify as non-Hispanic White or Black.[10]

As will be shown in Section 5, the relevance condition for the instrument is satisfied as in most of the literature, since historical settlement patterns are strong predictors of later immigrant flows. For exogeneity, following the interpretation in Goldsmith-Pinkham, Sorkin, and Swift (2020), it is assumed that the initial settlement patterns, conditional on the controls, are uncorrelated with unobserved determinants of changes in intergenerational mobility, i.e., ε_{CZ} in equation 1. The controls I include capture key characteristics influencing a location's attractiveness to immigrants, such as income levels and employment structure. Moreover, similar to Boustan et al. (2024), I control for the share of immigrants in 1980, which can be thought of as accounting for historical forces that made a location attractive to the immigrants as a whole. This ensures that the estimates are based on the country-of-origin variation within the immigrant population across commuting zones, rather than on comparisons between commuting zones that had high versus low shares of foreign-born population in 1980.

The exogeneity can still be violated, if, for instance, the historical settlement patterns of groups with a high growth rate after 1980 are correlated with unobserved determinants of future changes in intergenerational mobility; even after accounting for the rich set of baseline characteristics that I include in the model. I conduct further robustness checks to address these concerns. In the spirit of Goldsmith-Pinkham, Sorkin, and Swift (2020), I search for groups of immigrants driving most of the change in the foreign-born population in the US.[11] Then, as in Abramitzky et al. (2023) and Boustan, Cai, and Tseng (2024), I search for additional covariates among a large set of variables

[10] In Section 5, I provide additional results where I use percentiles of the change in the share of population born in Latin America and Asia as the main independent variable as a further check, and obtain similar outcomes.

[11] Immigrants from the categories Mexico, "Other North and Central America", South America, and "Other Asia" collectively account for 56% of the absolute changes among all immigrant groups. This number is obtained by dividing the increase in the number of immigrants from these places by the sum of absolute changes in the number of foreign-born population across all groups included in my analysis (I describe these groups in the Appendix).

detailed in the Appendix using Lasso to find the correlates of the shares of these largest immigrant groups, and include those covariates among my set of controls. Finally, I include all the baseline location characteristics that I have collected. As explained in Section 5, the results are remarkably similar across all specifications. Although one cannot claim to control for all unobservables with this approach, the stability of the estimates can reduce concerns about the importance of remaining unobservables following Altonji, Elder, and Taber (2005) and Oster (2019).

5 Results

Table 1 shows the results from estimating equation 1. Panel A shows the first stage results from IV estimation of equation 1. As expected, the shift-share instrument is highly relevant. Panel B presents OLS estimates, and shows that the relationship between immigration and changes in native intergenerational mobility is statistically insignificant. Panel C presents IV estimates, which shows that the relationship remains insignificant after using predicted immigration inflows as an instrument for the realized inflows.[12]

Figure 2 visualizes the findings that were presented in Table 1. In all plots, I residualize both axes with respect to the control variables in equation 1. The two top panels correspond to Panel B of Table 1. It is difficult to visually detect a meaningful relationship between changes in intergenerational mobility and the endogenous variable of interest. The two bottom panels correspond to the reduced form of the IV, showing that the instrument also does not correlate well with changes in intergenerational mobility.

The failure to reject the null hypothesis does not imply rejecting the possibility of either positive or negative effects. However, the effects that I fail to reject (taking those to be the ones in 95% credible intervals) are fairly small. For comparison, a 1-percentile increase in exposure to the Great Migration between 1940 and 1970 is estimated to reduce intergenerational mobility by approximately 0.125 percentile points (Derenoncourt 2022). In my context, the largest negative impact of a 1-percentile increase in exposure to immigration between 1980 and 2010 that is included in the 95% credible interval for White children in Table 1 is approximately -0.002, while for Black children it is around -0.04. Both are significantly smaller than the estimates reported in Derenoncourt (2022).

To put my estimates further into perspective, it is also helpful to consider the impacts on commuting zones where the influx of immigrants was relatively large. Recalling the concern in the introduction about America's classrooms being hit by immigration (The Wall Street Journal 2024),

[12]It is worth emphasizing that my dependent variable is also an estimate, and in all tables I report credible intervals obtained from a Bayes bootstrap as they retain a useful interpretation even in cases where inference based on local asymptotically normal approximation is not valid (Andrews and Shapiro 2024).

commuting zones that are one standard deviation above the median in the distribution of immigration can be thought of as candidates for locations where the children might be affected the most.[13] The largest possible negative impact of a standard-deviation increase in immigration consistent with the bounds of the credible intervals in Table 1 is -0.052 for White children, and -1.152 for Black children.

In Table 2, I present results where I focus on changes in the foreign-born population using a shorter window between 1990 and 2007. I obtain results that are qualitatively very similar to my baseline estimates using the 1980-2010 window.

As explained in Section 4, I check the sensitivity of my results to additional covariates. Appendix Table 2 presents the results where I add covariates chosen by Lasso that are not present among my baseline controls. Appendix Table 3 presents results where I include all covariates mentioned in the Appendix. The estimates are remarkably similar across all specifications, which is further reinforcing the robustness of the results as explained in Section 4.

In my main estimates, I used percentiles of the change in the number of foreign-born residents as a share of the baseline population as the distribution of changes is highly right-skewed, following Sequeira, Nunn, and Qian (2020) and Derenoncourt (2022). Appendix Table 4 shows the results where I use changes directly instead of percentiles. Although I get qualitatively similar results, the instruments are much less powerful, and the credible intervals are large. Appendix Table 5 shows that just excluding the top five commuting zones with the largest change in the number of foreign-born residents as a share of the baseline population makes the instrument stronger, highlighting the sensitivity of this specification to outliers.

A concern with equation 1 is that, although most of the immigration to the United States between 1980 and 2010 was from Latin America and Asia as I document in Section 4, changes in the intergenerational mobility of White and Black children might still reflect compositional effects due to immigrants from other locations who are more likely to identify themselves as White or Black. In Appendix Table 6 I focus on changes in the share of foreign-born individuals from Latin America and Asia. The results are similar to the baseline specification using all origin locations. In Appendix Table 7, I examine changes in the number of foreign-born individuals specifically from Mexico, the top origin country for immigration to the US during this period. The results for this group are qualitatively similar to those for the full sample.

In Appendix Table 8 I analyze the effects separately by gender. There is a statistically significant positive effect for Black male children; however, as Appendix Table 9 shows, this result is not robust to changes to the period in which immigration is measured. Appendix Table 10 shows

[13] Appendix Figure 1 shows the distribution of immigration across the US along with sample commuting zones at different percentiles. An example commuting zone that is approximately one standard deviation above the median, Rochester, MN, is also depicted.

that the results are not sensitive to using individual income rank instead of household income rank when defining the dependent variable. Throughout the paper the focus was on changes in intergenerational mobility for children born to parents at the 25th percentile of the income distribution. Appendix Tables 11 and 12 show that similar qualitative conclusions hold when examining changes in intergenerational mobility for children born to parents at the 50th and 75th percentiles.

It is also important to document whether immigrants self-select into destination locations based on the intergenerational mobility of the natives. Appendix Table 13 shows that the locations where immigrants settled had lower levels of intergenerational mobility for White children for the 1978 cohort, but Appendix Table 14 reveals that the same does not apply for the 1992 cohort. Abramitzky et al. (2021) showed that immigrants tend to settle in locations offering better prospects for their children. The results here imply that the immigrants in the most recent wave of immigration do not settle in locations that offer better prospects for native children. They also highlight the importance of using a specification in differences rather than a cross section.

6 Mechanisms

The preceding section showed that the large wave of immigration to the United States between 1980 and 2010 does not have a statistically significant impact on the intergenerational mobility of natives. This finding is perhaps surprising, given the widespread media coverage of public concerns about immigration harming native children. It also contrasts with the negative effects of a demographic shock of similar magnitude, the Great Migration between 1940 and 1970, on intergenerational mobility, as documented in Derenoncourt (2022). In order to better understand the results in this paper, it is useful to explore the relationship between this recent wave of immigration and mechanisms commonly associated with changes in intergenerational mobility.

Figure 3 shows the impact of immigration on several socioeconomic outcomes that have been considered important for mobility. The coefficients depict the results from regressions where I replace the dependent variable in equation 1 with the variables in the plot. I standardize these new dependent variables to have zero mean and unit variance.

Chetty et al. (2026) demonstrate that changes in parental employment rates serve as a significant proxy for changes in intergenerational mobility and establish positive causal effects of growing up in an environment with rising parental employment rates on children's outcomes. The first two rows of Figure 3 show the effect of immigration on parental employment rates of Black and White children. The effects are statistically indistinguishable from zero, suggesting that immigration did not change parental employment rates between 1978 and 1992 birth cohorts for children born to parents at the 25th percentile of the income distribution. The lack of a significant impact on one of the most important proxies for factors associated with improved mobility can explain the results

that were presented in Section 5.

Next, I move on to investigating a set of factors that were examined by Derenoncourt (2022) as potential determinants of changes in intergenerational mobility. In the context of the Great Migration, Derenoncourt (2022) argues that the potential mechanisms underlying the declines in intergenerational mobility were increases in violent crime, incarceration rates, residential and school segregation.

Figure 3 shows that immigration does not have a statistically significant impact on incarceration or murder rates at the 95% level. Spenkuch (2014) found previously that immigration is associated with increases in non-violent crimes, but not with increases in violent crimes. Contrary to popular perceptions, Abramitzky et al. (2024) show that immigrants have lower incarceration rates than natives, and the findings in that paper might help rationalize why I do not find an association between immigration and higher incarceration or murder rates.

I also do not find a statistically significant impact of immigration on private school enrollment rates. Betts and Fairlie (2003) previously found that immigration causes native flight to private schools. It is worth highlighting that the time frame, the unit of analysis, and the choices about the empirical strategy differ between the two works. It is also worth emphasizing that flight into private schools is not the only form of native or White flight. Boustan, Cai, and Tseng (2024), for instance, report that White flight in the context of Asian immigration primarily takes the form of departure from districts with increasing Asian presence instead of substitution to private schools. Motivated by the concerns about immigration hitting America's classrooms (The Wall Street Journal 2024), it is also important to look at the impact of immigration on education expenditure per pupil. Although the point estimate is positive, the effect is statistically insignificant in this case, too. Overall, immigration does not have a clear impact on most socioeconomic mechanisms associated with changes in intergenerational mobility, helping to explain the findings of this paper.

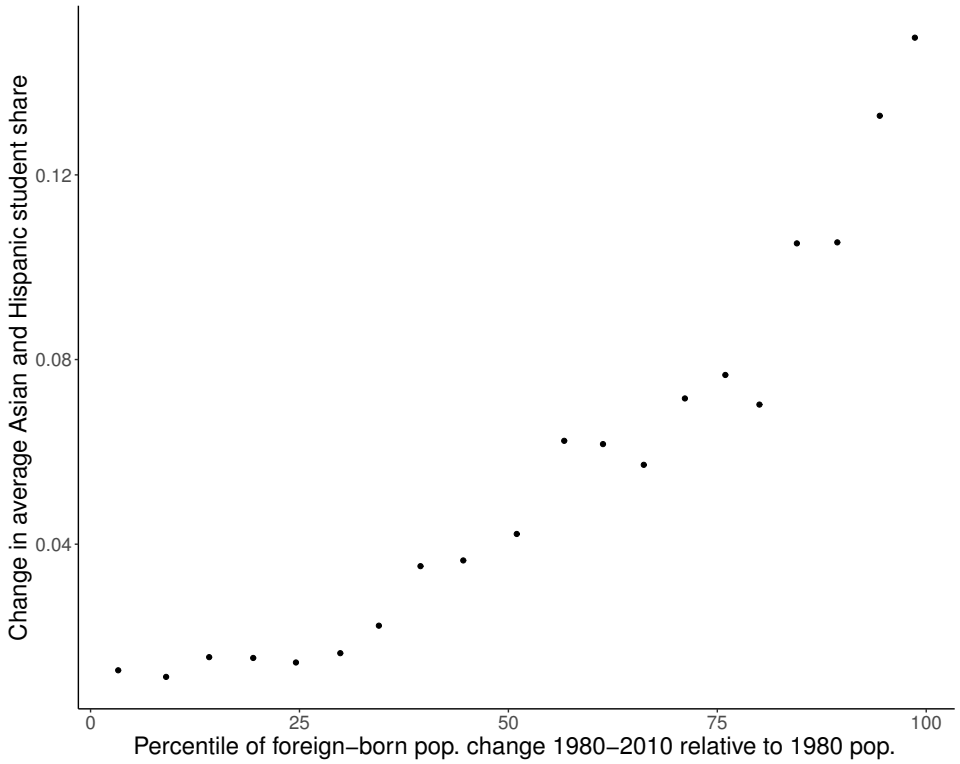
7 Conclusions

Immigration continues to be among the most salient factors shaping policy discussions in the United States. Despite public concerns about immigration harming native children in schools and recently documented negative impacts of large demographic changes on mobility in the context of the Great Migration, I find no evidence of a statistically significant decline in native intergenerational mobility attributable to immigration and show that large impacts can be ruled out. Further analysis reveals that immigration does not significantly affect important mechanisms associated with intergenerational mobility in the literature, which helps explain the findings in this paper.

It is worth emphasizing that this paper does not study the impacts separately by the education level of immigrants, which might be an important channel through which the effects might differ.

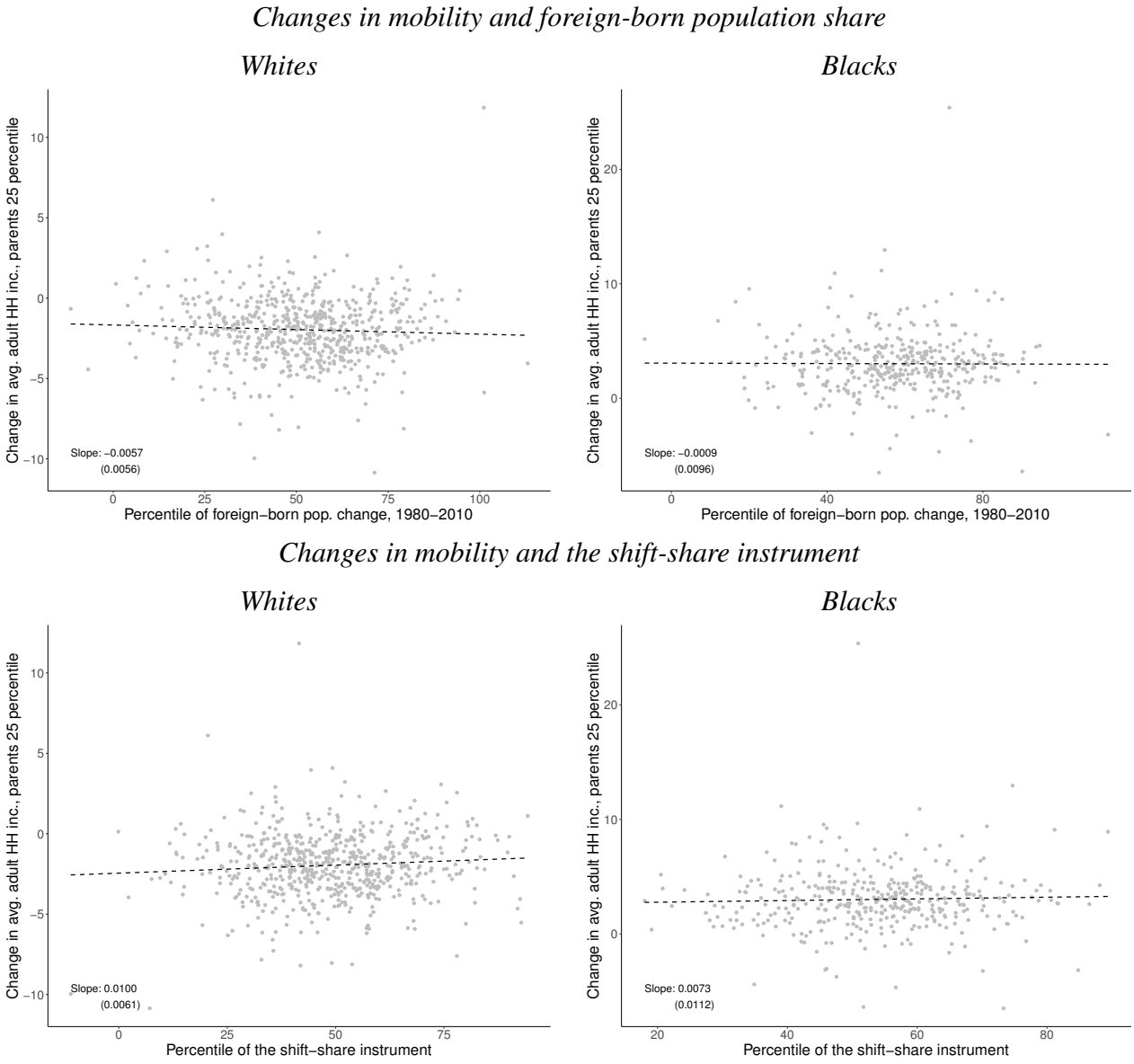
Using a methodology similar to Terry et al. (2026) to answer this question might be a useful direction for future work.

Figure 1: Changes in average share of Asian and Hispanic students during school ages of 1978 and 1992 cohorts



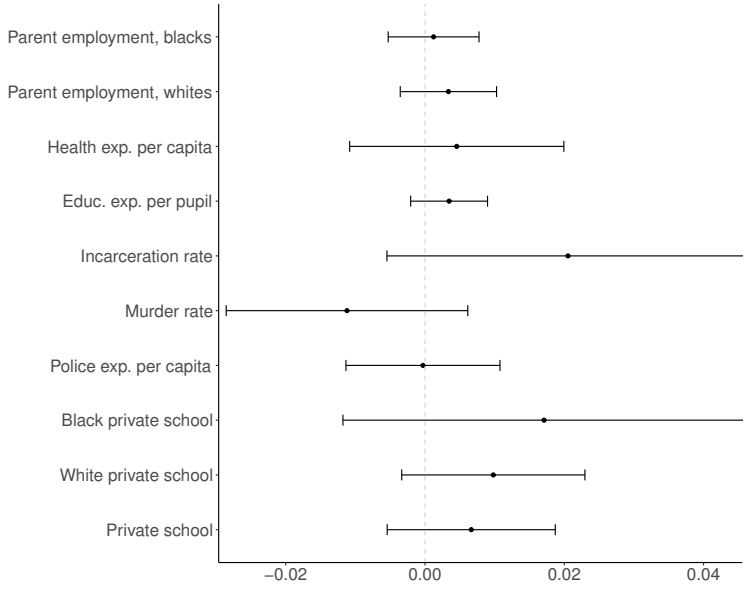
Notes: The figure displays the percentiles of the change in the number of foreign-born residents between 1980 and 2010 as a share of 1980 population on the x-axis, and the change in the average share of Asian and Hispanic students in public schools during the years when the 1978 and 1992 birth cohorts were in school on the y-axis for commuting zones across the United States. Since data on racial composition is available starting with the 1987–1988 school year when the 1978 birth cohort was in fourth grade, I plot changes in the average shares of Asian and Hispanic students between the 1987/88–1995/96 and 2001/02–2009/10 school years. This approach enables a comparison of exposure to Asian and Hispanic students from fourth to twelfth grade for both cohorts. The data is grouped into 20 bins of equal size, and averages within each bin are plotted.

Figure 2: Impact of immigration on the intergenerational mobility of natives



Notes: The figure shows scatter plots where the y-axis represents the estimated change in average adulthood household income rank between 1978 and 1992 birth cohorts for children born to parents at the 25th percentile of the income distribution, and the x-axis corresponds to percentiles of the change in the number of foreign-born residents between 1980 and 2010 as a share of 1980 population or percentiles of the shift-share instrument. The units are commuting zones. In the two top panels, the x-axis variable is the percentile of the change in the number of foreign-born residents between 1980 and 2010 as a share of 1980 population. In the two bottom panels, the x-axis variable corresponds to the percentiles of the leave-out shift-share instrument described in Section 4. In all plots, both axes are residualized with respect to the share of employment in different industries, employment-to-population ratio and unemployment rate, income per capita, share of college graduates, share of the population above 65, log of total population, share of foreign-born population, and Census division fixed effects. The plots on the left represent changes in the outcome for White children, and the plots on the right represent changes for Black children.

Figure 3: Impact of immigration on social and economic outcomes



Notes: The figure shows the impact of immigration on economic and social outcomes. In all specifications, I standardize the outcome variable of interest to have zero mean and unit variance. The independent variable is the percentile of the change in the number of foreign-born residents between 1980 and 2010 as a share of the 1980 population, instrumented by predicted percentiles. Changes in parental employment rates are measured between 1978 and 1992 birth cohorts for children born to parents at the 25th percentile of the income distribution using data from Chetty et al. (2024). Changes in incarceration rates, and murder rates are measured between 1980 and 2010. Changes in the total, Black and White private school enrollment are measured between 1980 and 2000. Changes in health expenditure per capita, police expenditure per capita, and education expenditure per pupil are measured using data from 1982 and 2012. All regressions include controls for the share of employment in different industries, employment-to-population ratio and unemployment rate, income per capita, share of college graduates, share of the population above 65, log of total population, and share of foreign-born population in 1980, as well as Census division fixed effects. The bars depict 95% confidence intervals based on robust standard errors.

Table 1: Changes in upward mobility from 1978 to 1992 birth cohorts and immigration between 1980-2010

	$\Delta HouseholdIncomeRank$	
	White	Black
Panel A. First stage		
$\widehat{Immigration}$	0.3357	0.4191
	(0.0500)	(0.0756)
	[0.2449, 0.427]	[0.2827, 0.5426]
F-stat	45.09	30.71
Panel B. OLS		
Immigration	-0.0057	-0.0009
	(0.0056)	(0.0096)
	[-0.0167, 0.0036]	[-0.0189, 0.0159]
Panel C. IV		
Immigration	0.0297	0.0174
	(0.0189)	(0.0277)
	[-0.0018, 0.0692]	[-0.0397, 0.0808]
N. obs	632	378
Mean rank for 1992 cohort	47.02	36.37

Notes: The table reports the impact of immigration between 1980 and 2010 on changes in upward mobility from 1978 to 1992 birth cohorts. The unit of analysis is a commuting zone. The dependent variable is the estimated change in the average adulthood household income rank between 1978 and 1992 birth cohorts for children born to parents at the 25th percentile of the income distribution, taken from Chetty et al. (2024). The independent variable is the percentile of the change in the number of foreign-born residents between 1980 and 2010 as a share of 1980 population. The instrument is the percentile of the predicted change in the number of foreign-born residents as a share of 1980 population, constructed by interacting the 1980 shares of foreign-born population from different countries of origin with leave-out aggregate changes in the sizes of these populations between 1980 and 2010. In all specifications I control for the shares of employment in different industries, employment-to-population ratio and unemployment rate, income per capita, share of college graduates, share of the population above 65, log of total population, and share of foreign-born population in 1980, as well as Census division fixed effects. Below each coefficient I report heteroskedasticity-robust asymptotic standard errors in parentheses, and 95% Bayes bootstrap credible intervals based on 500 replicates in brackets. Mean rank for 1992 cohort refers to the mean of the household income rank of children from 1992 birth cohort born to parents at the 25th percentile of the income distribution across commuting zones.

Table 2: Changes in upward mobility from 1978 to 1992 birth cohorts and immigration between 1990-2007

	$\Delta HouseholdIncomeRank$	
	White	Black
Panel A. First stage		
$\widehat{Immigration}$	0.4077	0.5462
	(0.0526)	(0.0767)
	[0.3052, 0.509]	[0.3961, 0.675]
F-stat	60.07	50.66
Panel B. OLS		
Immigration	-0.0056	0.0004
	(0.0062)	(0.0097)
	[-0.0173, 0.0048]	[-0.0199, 0.0178]
Panel C. IV		
Immigration	0.0051	-0.0088
	(0.0139)	(0.0176)
	[-0.0166, 0.0343]	[-0.0427, 0.0261]
N. obs	632	378
Mean rank for 1992 cohort	47.02	36.37

Notes: The table reports the impact of immigration between 1990 and 2007 on changes in upward mobility from 1978 to 1992 birth cohorts. The unit of analysis is a commuting zone. The dependent variable is the estimated change in average adulthood household income rank between 1978 and 1992 birth cohorts for children born to parents at the 25th percentile of the income distribution, taken from Chetty et al. (2024). The independent variable is the percentile of the change in the number of foreign-born residents between 1990 and 2007 as a share of 1990 population. The instrument is the percentile of the predicted change in the number of foreign-born residents as a share of 1990 population, constructed by interacting the 1990 shares of foreign-born population from different countries of origin with leave-out aggregate changes in the size of these populations between 1990 and 2007. In all specifications I control for the share of employment in different industries, employment-to-population ratio and unemployment rate, income per capita, share of college graduates, share of the population above 65, log of total population, and share of foreign-born population in 1990, as well as Census division fixed effects. Below each coefficient I report heteroskedasticity-robust asymptotic standard errors in parentheses, and 95% Bayes bootstrap credible intervals based on 500 replicates in brackets. Mean rank for 1992 cohort refers to the mean of the household income rank of children from 1992 birth cohort born to parents at the 25th percentile of the income distribution across commuting zones.

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Appendix

Construction of the Instrument

In order to construct my instrument, I need initial shares of foreign-born people from different countries of origin in each commuting zone in a baseline year (for instance, in 1980 for my baseline analysis), and I also need aggregate changes in the number of people born in that country between the baseline and end years across the United States.

Possible answers to country of origin questions are not consistent across Censuses. For instance, a large number of countries that were among the options for the birthplace question in the 2008-2012 ACS do not exist among the possible answers to the corresponding question in the 1980 Census. In order to deal with this problem, some aggregation is necessary.

To illustrate the aggregation procedure, it is useful to consider Asian countries, one of the key sources of immigration to the United States in the period studied. Countries from Asia in the 1980 Census are China, India, Japan, Korea, Philippines, and Vietnam. There is also a grouping called "Other Asia". For the 2008-2012 ACS, which has a much more detailed list of countries, I aggregate all country options in Asia except those explicitly listed in the 1980 Census into an "Other Asia" category to match the 1980 classification.

I also face a similar challenge when constructing the mapping between countries of origin that are available in the 1990 Census and the 2005-2009 American Community Survey that I use in my robustness checks. The list of countries in 2005-2009 ACS is in general more granular, except Oceania, which has more countries in the 1990 Census. Except the case of Oceania, I aggregate the options in the 2005-2009 ACS to match the countries in the 1990 Census, and for Oceania, I create aggregate categories for both waves that pool all available options in the continent.

Other Census Variables

In all my specifications, I control for the log of the baseline total population and the share of the foreign-born population in each commuting zone. I also obtain data on initial racial composition which I use in robustness checks.

I define consistent groups of industries for the 1980 and 1990 Censuses as I include these shares as control variables in both my main analyses using the 1980 Census and in robustness analyses using the 1990 Census. The categories I include are "manufacturing", "agriculture and mining", "finance", "retail", "construction", "wholesale", and "transportation and communication". I also obtain data on employment levels of people above the age of 16. I calculate the share of employed people above 16, which I call the employment-to-population ratio, and I also include the unemployment rate.

The data I use for the age structure of commuting zones include shares of population under 18, above 35, and above 65. I also obtain data on educational attainment. I calculate the share of population above 25 that has completed a four-year college or more, the share with one to three years of college education, the share that completed four years of high school, and the share with one to three years of high school education.

I obtain data on family composition as well. The data include the share of husband-wife families with children under the age of 6, between ages 6 and 17, and no children; and corresponding shares for single-father and single-mother families. I also calculate, for each commuting zone, the share of people living in rural areas. Finally, the rent data is provided in bins, and when calculating the median rent in each commuting zone, I take the mid-points of these bins.

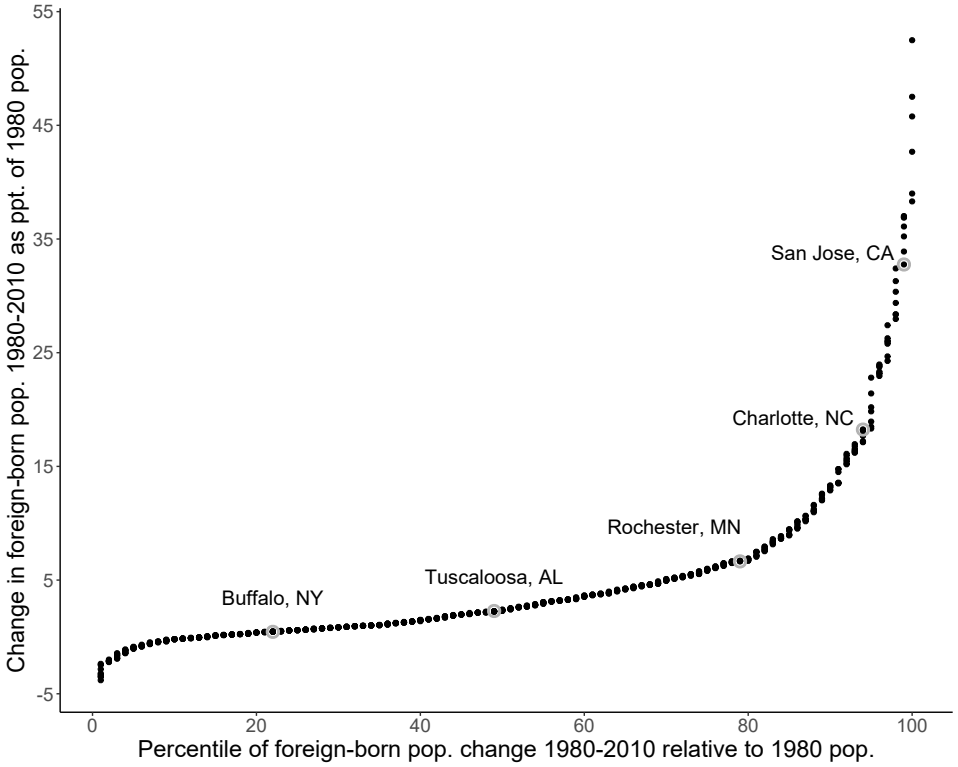
Crosswalks

In order to map different geographies to commuting zones, I rely on several crosswalks. I use the crosswalk kindly provided by Rich (2024) to map school districts to census tracts, and then use NHGIS data to map tracts to counties.

I map counties to commuting zones using data provided by Chetty et al. (2016).[14] I map counties to Census divisions using the crosswalk of Autor and Dorn (2013), obtained from Dorn (2024).

[14]For 15 cases where there is not a corresponding commuting zone in this crosswalk, I assign them to the commuting zones that cover the largest share of their areas using the data described in Eckert et al. (2020).

Appendix Figure 1: Quantiles of immigrant share changes, 1980-2010



Notes: The figure shows the quantile function of the change in the number of foreign-born residents between 1980 and 2010 as a share of 1980 population across US commuting zones (multiplied by 100, so the units on the y-axis are percentage points). The plot excludes Las Vegas, NV, where the change in the number of foreign-born population relative to baseline population was around 76%, for scaling purposes.

Appendix Table 1: Summary statistics

	Mean	SD	10th pct.	25th pct.	50th pct.	75th pct.	90th pct.
Panel A: Changes							
$\Delta HouseholdIncomeRank(White)$	-1.96	2.33	-4.81	-3.32	-1.77	-0.45	0.54
$\Delta HouseholdIncomeRank(Black)$	3.02	3.16	-0.39	1.2	2.72	4.43	6.85
$\Delta ImmigrantRelativeToBaseline$	4.79	7.93	-0.21	0.56	2.16	5.64	13.11
Panel B: Baseline Characteristics							
Total population (1000s)	306.14	833.53	12.31	36.32	92.04	247.94	638.44
Foreign-born share (%)	2.52	3.15	0.58	0.93	1.6	2.83	4.96
Income per capita ($1000)	18.72	3.58	14.49	16.34	18.67	20.58	22.86
College graduate share (%)	12.69	4.45	8.07	9.59	11.86	14.78	18.42
Manufacturing emp. share (%)	18.24	11.02	4.15	9.23	17.24	25.64	32.95
Share unemployed (%)	6.6	3.13	2.9	4.48	6.32	8.13	10.7

Notes: The table reports statistics describing the changes in intergenerational mobility and immigration across commuting zones, along with the baseline characteristics of commuting zones. Rows correspond to variables. The means and standard deviations are calculated across commuting zones. The percentiles report the value of the corresponding variable for the commuting zone at the given percentile of the distribution. In Panel A, the first row presents statistics for the change in the average adulthood household income rank between 1978 and 1992 birth cohorts for White children born to parents at the 25th percentile of the income distribution, taken from Chetty et al. (2024). The second row reports the corresponding statistics for Black children. The third row shows the descriptive statistics for the change in the number of foreign-born population between 1980 and 2010 as a share of 1980 population (multiplied by 100 so the units are percentage points). The rows in Panel B show the distribution of baseline characteristics of commuting zones in 1980. Income per capita was measured in 1979, and is expressed in 2010 dollars.

Appendix Table 2: Changes in upward mobility from 1978 to 1992 birth cohorts and immigration between 1980-2010, with additional covariates chosen by Lasso

	$\Delta HouseholdIncomeRank$	
	White	Black
Panel A. First stage		
$\widehat{Immigration}$	0.3224	0.3804
	(0.0501)	(0.0750)
	[0.2349, 0.414]	[0.2437, 0.4998]
F-stat	41.44	25.69
Panel B. OLS		
Immigration	-0.0065	-0.0045
	(0.0064)	(0.0092)
	[-0.0184, 0.0035]	[-0.0219, 0.0128]
Panel C. IV		
Immigration	0.0291	0.0123
	(0.0197)	(0.0315)
	[-0.0039, 0.0675]	[-0.0515, 0.0857]
N. obs	632	378
Mean rank for 1992 cohort	47.02	36.37

Notes: The table reports the impact of immigration between 1980 and 2010 on changes in upward mobility from 1978 to 1992 birth cohorts. The unit of analysis is a commuting zone. The dependent variable is the estimated change in average adulthood household income rank between 1978 and 1992 birth cohorts for children born to parents at the 25th percentile of the income distribution, taken from Chetty et al. (2024). The independent variable is the percentile of the change in the number of foreign-born residents between 1980 and 2010 as a share of 1980 population. The instrument is the percentile of the predicted change in the number of foreign-born residents as a share of 1980 population, constructed by interacting the 1980 shares of foreign-born population from different countries of origin with leave-out aggregate changes in their sizes between 1980 and 2010. In addition to the baseline controls consisting of the share of employment in different industries, employment-to-population ratio and unemployment rate, income per capita, share of college graduates, share of the population above 65, log of total population, and share of foreign-born population in 1980, I also control for the initial Black population, the share of husband-wife households with a child under age 6, and the share of female-headed households without a child in 1980 as covariates chosen by Lasso among a rich set of variables I describe in the Appendix. Controls also include Census division fixed effects. Below each coefficient I report heteroskedasticity-robust asymptotic standard errors in parentheses, and a 95% Bayes bootstrap credible interval based on 500 replicates in brackets. Mean rank for 1992 cohort refers to the mean of the household income rank of children from 1992 birth cohort born to parents at the 25th percentile of the income distribution across commuting zones.

Appendix Table 3: Changes in upward mobility from 1978 to 1992 birth cohorts and immigration between 1980-2010, including all covariates

	$\Delta HouseholdIncomeRank$	
	White	Black
Panel A. First stage		
$\widehat{Immigration}$	0.3009	0.3402
	(0.0546)	(0.0787)
	[0.2039, 0.3944]	[0.2145, 0.4752]
F-stat	30.40	18.67
Panel B. OLS		
Immigration	-0.0065	-0.0058
	(0.0067)	(0.0098)
	[-0.0179, 0.0034]	[-0.0225, 0.0125]
Panel C. IV		
Immigration	0.0269	0.0400
	(0.0239)	(0.0436)
	[-0.0179, 0.0754]	[-0.029, 0.1447]
N. obs	632	378
Mean rank for 1992 cohort	47.02	36.37

Notes: The table reports the impact of immigration between 1980 and 2010 on changes in upward mobility from 1978 to 1992 birth cohorts. The unit of analysis is a commuting zone. The dependent variable is the estimated change in average adulthood household income rank between 1978 and 1992 birth cohorts for children born to parents at the 25th percentile of the income distribution, taken from Chetty et al. (2024). The independent variable is the percentile of the change in the number of foreign-born residents between 1980 and 2010 as a share of 1980 population. The instrument is the percentile of the predicted change in the number of foreign-born residents as a share of 1980 population, constructed by interacting the 1980 shares of foreign-born population from different countries of origin with leave-out aggregate changes in their sizes between 1980 and 2010. In all specifications I control for a large set of commuting zone baseline characteristics described in the Appendix. These are related to employment shares in different industries, age structure, family composition, racial composition, education levels, urbanization rates, housing markets, as well as the log of total population and share of foreign-born population in 1980. I also control for Census division fixed effects. Below each coefficient I report heteroskedasticity-robust asymptotic standard errors in parentheses, and 95% Bayes bootstrap credible intervals based on 500 replicates in brackets. Mean rank for 1992 cohort refers to the mean of the household income rank of children from 1992 birth cohort born to parents at the 25th percentile of the income distribution across commuting zones.

Appendix Table 4: Changes in upward mobility from 1978 to 1992 birth cohorts and immigration between 1980-2010 (uses changes instead of percentiles)

	$\Delta HouseholdIncomeRank$	
	White	Black
Panel A. First stage		
$\widehat{Immigration}$	17.4982	33.4893
	(10.9347)	(11.0348)
	[2.6244, 38.6961]	[16.6477, 59.8376]
F-stat	2.56	9.21
Panel B. OLS		
Immigration	0.0069	-0.0187
	(0.0148)	(0.0212)
	[-0.0233, 0.0334]	[-0.0641, 0.0225]
Panel C. IV		
Immigration	0.0699	0.0996
	(0.1509)	(0.1188)
	[-0.2916, 0.5728]	[-0.0762, 0.4648]
N. obs	632	378
Mean rank for 1992 cohort	47.02	36.37

Notes: The table reports the impact of immigration between 1980 and 2010 on changes in upward mobility from 1978 to 1992 birth cohorts. The unit of analysis is a commuting zone. The dependent variable is the estimated change in average adulthood household income rank between 1978 and 1992 birth cohorts for children born to parents at the 25th percentile of the income distribution, taken from Chetty et al. (2024). The independent variable is the change in the number of foreign-born residents between 1980 and 2010 as a share of 1980 population (in percentage points). The instrument is the predicted change in the number of foreign-born residents as a share of 1980 population, constructed by interacting the 1980 shares of foreign-born population from different countries of origin with leave-out aggregate changes in the sizes of these populations between 1980 and 2010. In all specifications I control for the share of employment in different industries, employment-to-population ratio and unemployment rate, income per capita, share of college graduates, share of the population above 65, log of total population, and share of foreign-born population in 1980, as well as Census division fixed effects. Below each coefficient I report heteroskedasticity-robust asymptotic standard errors in parentheses, and 95% Bayes bootstrap credible intervals based on 500 replicates in brackets. Mean rank for 1992 cohort refers to the mean of the household income rank of children from 1992 birth cohort born to parents at the 25th percentile of the income distribution across commuting zones.

Appendix Table 5: Changes in upward mobility from 1978 to 1992 birth cohorts and immigration between 1980-2010 (uses changes instead of percentiles, drops 5 CZs)

	$\Delta HouseholdIncomeRank$	
	White	Black
Panel A. First stage		
$\widehat{Immigration}$	21.9014	47.7535
	(9.8164)	(11.2615)
	[7.7955, 41.8601]	[29.5466, 70.7343]
F-stat	4.98	17.98
Panel B. OLS		
Immigration	0.0030	-0.0174
	(0.0190)	(0.0300)
	[-0.0342, 0.0388]	[-0.0799, 0.0371]
Panel C. IV		
Immigration	0.1281	0.1591
	(0.1686)	(0.1209)
	[-0.2071, 0.4756]	[-0.0537, 0.4963]
N. obs	627	373
Mean rank for 1992 cohort	47.06	36.37

Notes: The table reports the impact of immigration between 1980 and 2010 on changes in upward mobility from 1978 to 1992 birth cohorts. The unit of analysis is a commuting zone. The dependent variable is the estimated change in average adulthood household income rank between 1978 and 1992 birth cohorts for children born to parents at the 25th percentile of the income distribution, taken from Chetty et al. (2024). The independent variable is the change in the number of foreign-born residents between 1980 and 2010 as a share of 1980 population (in percentage points). In each specification, I drop the five commuting zones with the highest value of the independent variable. The instrument is the predicted change in the number of foreign-born residents as a share of 1980 population, constructed by interacting the 1980 shares of foreign-born population from different countries of origin with leave-out aggregate changes in sizes of these populations between 1980 and 2010. In all specifications I control for the share of employment in different industries, employment-to-population ratio and unemployment rate, income per capita, share of college graduates, share of the population above 65, log of total population, and share of foreign-born population in 1980, as well as Census division fixed effects. Below each coefficient I report heteroskedasticity-robust asymptotic standard errors in parentheses, and 95% Bayes bootstrap credible intervals based on 500 replicates in brackets. Mean rank for 1992 cohort refers to the mean of the household income rank of children from 1992 birth cohort born to parents at the 25th percentile of the income distribution across commuting zones.

Appendix Table 6: Changes in upward mobility from 1978 to 1992 birth cohorts and immigration from Latin America and Asia between 1980-2010

	$\Delta HouseholdIncomeRank$	
	White	Black
Panel A. First stage		
$\widehat{Immigration}$	0.3924	0.4721
	(0.0511)	(0.0753)
	[0.2996, 0.4842]	[0.3308, 0.6069]
F-stat	58.86	39.26
Panel B. OLS		
Immigration	-0.0048	-0.0063
	(0.0055)	(0.0098)
	[-0.0154, 0.0038]	[-0.0237, 0.0116]
Panel C. IV		
Immigration	0.0147	0.0148
	(0.0163)	(0.0250)
	[-0.0124, 0.045]	[-0.031, 0.0733]
N. obs	632	378
Mean rank for 1992 cohort	47.02	36.37

Notes: The table reports the impact of immigration from Latin America and Asia between 1980 and 2010 on changes in upward mobility from 1978 to 1992 birth cohorts. The unit of analysis is a commuting zone. The dependent variable is the estimated change in average adulthood household income rank between 1978 and 1992 birth cohorts for children born to parents at the 25th percentile of the income distribution, taken from Chetty et al. (2024). The independent variable is the percentile of the change in the number of foreign-born residents from Latin America and Asia between 1980 and 2010 as a share of 1980 population. The instrument is the percentile of the predicted change in the number of foreign-born residents as a share of 1980 population, constructed by interacting the 1980 shares of foreign-born population from different countries of origin with leave-out aggregate changes in the sizes of these populations between 1980 and 2010. In all specifications I control for the share of employment in different industries, employment-to-population ratio and unemployment rate, income per capita, share of college graduates, share of the population above 65, log of total population, and share of foreign-born population in 1980, as well as Census division fixed effects. Below each coefficient I report heteroskedasticity-robust asymptotic standard errors in parentheses, and 95% Bayes bootstrap credible intervals based on 500 replicates in brackets. Mean rank for 1992 cohort refers to the mean of the household income rank of children from 1992 birth cohort born to parents at the 25th percentile of the income distribution across commuting zones.

Appendix Table 7: Changes in upward mobility from 1978 to 1992 birth cohorts and immigration from Mexico between 1980-2010

	$\Delta HouseholdIncomeRank$	
	White	Black
Panel A. First stage		
$\widehat{Immigration}$	0.4344	0.4527
	(0.0477)	(0.0698)
	[0.3335, 0.5237]	[0.3192, 0.566]
F-stat	82.90	42.03
Panel B. OLS		
Immigration	-0.0066	-0.0123
	(0.0042)	(0.0074)
	[-0.0146, 0.0004]	[-0.0269, -0.0002]
Panel C. IV		
Immigration	0.0216	0.0167
	(0.0131)	(0.0201)
	[0.0006, 0.0487]	[-0.0221, 0.0608]
N. obs	632	378
Mean rank for 1992 cohort	47.02	36.37

Notes: The table reports the impact of immigration from Mexico between 1980 and 2010 on changes in upward mobility from 1978 to 1992 birth cohorts. The unit of analysis is a commuting zone. The dependent variable is the estimated change in average adulthood household income rank between 1978 and 1992 birth cohorts for children born to parents at the 25th percentile of the income distribution, taken from Chetty et al. (2024). The independent variable is the percentile of the change in the number of foreign-born residents from Mexico between 1980 and 2010 as a share of 1980 population. The instrument is the percentile of the predicted change in the number of foreign-born residents as a share of 1980 population, constructed by interacting the 1980 shares of foreign-born population from different countries of origin with leave-out aggregate changes in the sizes of these populations between 1980 and 2010. In all specifications I control for the share of employment in different industries, employment-to-population ratio and unemployment rate, income per capita, share of college graduates, share of the population above 65, log of total population, and share of foreign-born population in 1980, as well as Census division fixed effects. Below each coefficient I report heteroskedasticity-robust asymptotic standard errors in parentheses, and 95% Bayes bootstrap credible intervals based on 500 replicates in brackets. Mean rank for 1992 cohort refers to the mean of the household income rank of children from 1992 birth cohort born to parents at the 25th percentile of the income distribution across commuting zones.

Appendix Table 8: Changes in upward mobility by gender from 1978 to 1992 birth cohorts and immigration between 1980-2010

	$\Delta HouseholdIncomeRank$			
	Female		Male	
	White	Black	White	Black
Panel A. First stage				
$\widehat{Immigration}$	0.3368	0.3589	0.3668	0.3717
	(0.0509)	(0.0694)	(0.0480)	(0.0691)
	[0.2315, 0.4341]	[0.221, 0.4925]	[0.2783, 0.4593]	[0.2443, 0.5002]
F-stat	43.84	26.73	58.28	28.96
Panel B. OLS				
Immigration	-0.0081	0.0066	-0.0149	0.0218
	(0.0061)	(0.0096)	(0.0059)	(0.0119)
	[-0.0197, 0.0037]	[-0.0105, 0.0237]	[-0.0257, -0.0035]	[0.0023, 0.0428]
Panel C. IV				
Immigration	0.0207	-0.0279	0.0051	0.0832
	(0.0224)	(0.0341)	(0.0192)	(0.0406)
	[-0.0213, 0.0673]	[-0.1108, 0.0256]	[-0.03, 0.0441]	[0.0146, 0.179]
N. obs	625	327	622	327
Mean rank for 1992 cohort	47.33	37.63	46.63	34.32

Notes: The table reports the impact of immigration between 1980 and 2010 on changes in upward mobility from 1978 to 1992 birth cohorts separately by race and gender. The unit of analysis is a commuting zone. The dependent variable is the estimated change in average adulthood household income rank between 1978 and 1992 birth cohorts for children born to parents at the 25th percentile of the income distribution, taken from Chetty et al. (2024). The independent variable is the percentile of the change in the number of foreign-born residents between 1980 and 2010 as a share of 1980 population. The instrument is the percentile of the predicted change in the number of foreign-born residents as a share of 1980 population, constructed by interacting the 1980 shares of foreign-born population from different countries of origin with leave-out aggregate changes in the sizes of these populations between 1980 and 2010. In all specifications I control for the share of employment in different industries, employment-to-population ratio and unemployment rate, income per capita, share of college graduates, share of the population above 65, log of total population, and share of foreign-born population in 1980, as well as Census division fixed effects. Below each coefficient I report heteroskedasticity-robust asymptotic standard errors in parentheses, and 95% Bayes bootstrap credible intervals based on 500 replicates in brackets. Mean rank for 1992 cohort refers to the mean of the household income rank of children from 1992 birth cohort born to parents at the 25th percentile of the income distribution across commuting zones.

Appendix Table 9: Changes in upward mobility by gender from 1978 to 1992 birth cohorts and immigration between 1990-2007

	$\Delta HouseholdIncomeRank$			
	Female		Male	
	White	Black	White	Black
Panel A. First stage				
$\widehat{Immigration}$	0.4268	0.4263	0.4241	0.4661
	(0.0523)	(0.0806)	(0.0522)	(0.0780)
	[0.322, 0.5216]	[0.2765, 0.565]	[0.3272, 0.5244]	[0.3122, 0.5903]
F-stat	66.59	27.95	65.91	35.68
Panel B. OLS				
Immigration	-0.0105	0.0115	-0.0112	0.0198
	(0.0061)	(0.0092)	(0.0058)	(0.0123)
	[-0.0223, 0.0004]	[-0.0049, 0.0287]	[-0.0211, 0.0001]	[-0.0002, 0.0416]
Panel C. IV				
Immigration	0.0206	-0.0395	-0.0111	0.0462
	(0.0158)	(0.0269)	(0.0160)	(0.0332)
	[-0.0069, 0.0519]	[-0.1034, 0.0079]	[-0.0412, 0.0206]	[-0.008, 0.1251]
N. obs	625	327	622	327
Mean rank for 1992 cohort	47.33	37.63	46.63	34.32

Notes: The table reports the impact of immigration between 1990 and 2007 on changes in upward mobility from 1978 to 1992 birth cohorts separately by race and gender. The unit of analysis is a commuting zone. The dependent variable is the estimated change in average adulthood household income rank between 1978 and 1992 birth cohorts for children born to parents at the 25th percentile of the income distribution, taken from Chetty et al. (2024). The independent variable is the percentile of the change in the number of foreign-born residents between 1990 and 2007 as a share of 1990 population. The instrument is the percentile of the predicted change in the number of foreign-born residents as a share of 1990 population, constructed by interacting the 1990 shares of foreign-born population from different countries of origin with leave-out aggregate changes in the sizes of these populations between 1990 and 2007. In all specifications I control for the share of employment in different industries, employment-to-population ratio and unemployment rate, income per capita, share of college graduates, share of the population above 65, log of total population, and share of foreign-born population in 1990, as well as Census division fixed effects. Below each coefficient I report heteroskedasticity-robust asymptotic standard errors in parentheses, and 95% Bayes bootstrap credible intervals based on 500 replicates in brackets. Mean rank for 1992 cohort refers to the mean of the household income rank of children from 1992 birth cohort born to parents at the 25th percentile of the income distribution across commuting zones.

Appendix Table 10: Changes in upward mobility from 1978 to 1992 birth cohorts and immigration between 1980-2010 (uses individual income rank)

	$\Delta IndividualIncomeRank$	
	White	Black
Panel A. First stage		
$\widehat{Immigration}$	0.3418	0.3793
	(0.0495)	(0.0745)
	[0.2546, 0.4283]	[0.2296, 0.5077]
F-stat	47.59	25.93
Panel B. OLS		
Immigration	-0.0038	0.0028
	(0.0055)	(0.0098)
	[-0.0135, 0.0055]	[-0.0149, 0.02]
Panel C. IV		
Immigration	0.0136	0.0107
	(0.0174)	(0.0302)
	[-0.0171, 0.0475]	[-0.045, 0.0808]
N. obs	633	379
Mean rank for 1992 cohort	44.29	39.37

Notes: The table reports the impact of immigration between 1980 and 2010 on changes in upward mobility from 1978 to 1992 birth cohorts. The unit of analysis is a commuting zone. The dependent variable is the estimated change in average adulthood individual income rank between 1978 and 1992 birth cohorts for children born to parents at the 25th percentile of the income distribution, taken from Chetty et al. (2024). The independent variable is the percentile of the change in the number of foreign-born residents between 1980 and 2010 as a share of 1980 population. The instrument is the percentile of the predicted change in the number of foreign-born residents as a share of 1980 population, constructed by interacting the 1980 shares of foreign-born population from different countries of origin with leave-out aggregate changes in the sizes of these populations between 1980 and 2010. In all specifications I control for the share of employment in different industries, employment-to-population ratio and unemployment rate, income per capita, share of college graduates, share of the population above 65, log of total population, and share of foreign-born population in 1980, as well as Census division fixed effects. Below each coefficient I report heteroskedasticity-robust asymptotic standard errors in parentheses, and 95% Bayes bootstrap credible intervals based on 500 replicates in brackets. Mean rank for 1992 cohort refers to the mean of the household income rank of children from 1992 birth cohort born to parents at the 25th percentile of the income distribution across commuting zones.

Appendix Table 11: Changes in upward mobility from 1978 to 1992 birth cohorts and immigration between 1980-2010 (children born to parents at the 50th percentile)

	$\Delta HouseholdIncomeRank$	
	White	Black
Panel A. First stage		
$\widehat{Immigration}$	0.3789	0.3858
	(0.0481)	(0.0748)
	[0.2898, 0.4653]	[0.2433, 0.5223]
F-stat	62.14	26.57
Panel B. OLS		
Immigration	-0.0083	-0.0078
	(0.0040)	(0.0117)
	[-0.0159, -0.0017]	[-0.0312, 0.0115]
Panel C. IV		
Immigration	0.0177	0.0073
	(0.0129)	(0.0418)
	[-0.0037, 0.0445]	[-0.0649, 0.0996]
N. obs	632	378
Mean rank for 1992 cohort	54.61	41.16

Notes: The table reports the impact of immigration between 1980 and 2010 on changes in upward mobility from 1978 to 1992 birth cohorts. The unit of analysis is a commuting zone. The dependent variable is the estimated change in average adulthood household income rank between 1978 and 1992 birth cohorts for children born to parents at the 50th percentile of the income distribution, taken from Chetty et al. (2024). The independent variable is the percentile of the change in the number of foreign-born residents between 1980 and 2010 as a share of 1980 population. The instrument is the percentile of the predicted change in the number of foreign-born residents as a share of 1980 population, constructed by interacting the 1980 shares of foreign-born population from different countries of origin with leave-out aggregate changes in the sizes of these populations between 1980 and 2010. In all specifications I control for the share of employment in different industries, employment-to-population ratio and unemployment rate, income per capita, share of college graduates, share of the population above 65, log of total population, and share of foreign-born population in 1980, as well as Census division fixed effects. Below each coefficient I report heteroskedasticity-robust asymptotic standard errors in parentheses, and a 95% Bayes bootstrap credible interval based on 500 replicates in brackets. Mean rank for 1992 cohort refers to the mean of the household income rank of children from 1992 birth cohort born to parents at the 50th percentile of the income distribution across commuting zones.

Appendix Table 12: Changes in upward mobility from 1978 to 1992 birth cohorts and immigration between 1980-2010 (children born to parents at the 75th percentile)

	$\Delta HouseholdIncomeRank$	
	White	Black
Panel A. First stage		
$\widehat{Immigration}$	0.3426	0.3939
	(0.0491)	(0.0745)
	[0.258, 0.4317]	[0.2558, 0.5246]
F-stat	48.63	27.96
Panel B. OLS		
Immigration	-0.0135	-0.0171
	(0.0044)	(0.0164)
	[-0.0217, -0.0046]	[-0.0449, 0.013]
Panel C. IV		
Immigration	0.0338	-0.0336
	(0.0177)	(0.0603)
	[0.0045, 0.0668]	[-0.1403, 0.102]
N. obs	632	378
Mean rank for 1992 cohort	61.90	46.84

Notes: The table reports the impact of immigration between 1980 and 2010 on changes in upward mobility from 1978 to 1992 birth cohorts. The unit of analysis is a commuting zone. The dependent variable is the estimated change in average adulthood household income rank between 1978 and 1992 birth cohorts for children born to parents at the 75th percentile of the income distribution, taken from Chetty et al. (2024). The independent variable is the percentile of the change in the number of foreign-born residents between 1980 and 2010 as a share of 1980 population. The instrument is the percentile of the predicted change in the number of foreign-born residents as a share of 1980 population, constructed by interacting the 1980 shares of foreign-born population from different countries of origin with leave-out aggregate changes in the sizes of these populations between 1980 and 2010. In all specifications I control for the share of employment in different industries, employment-to-population ratio and unemployment rate, income per capita, share of college graduates, share of the population above 65, log of total population, and share of foreign-born population in 1980, as well as Census division fixed effects. Below each coefficient I report heteroskedasticity-robust asymptotic standard errors in parentheses, and 95% Bayes bootstrap credible intervals based on 500 replicates in brackets. Mean rank for 1992 cohort refers to the mean of the household income rank of children from 1992 birth cohort born to parents at the 75th percentile of the income distribution across commuting zones.

Appendix Table 13: Upward mobility of 1978 birth cohort and immigration between 1980-2010

	HouseholdIncomeRank	
	White	Black
Panel A. First stage		
$\widehat{Immigration}$	0.3357	0.4191
	(0.0500)	(0.0756)
	[0.2449, 0.427]	[0.2827, 0.5426]
F-stat	45.09	30.71
Panel B. OLS		
Immigration	-0.0136	0.0042
	(0.0052)	(0.0082)
	[-0.0228, -0.0042]	[-0.0107, 0.0183]
Panel C. IV		
Immigration	-0.0615	-0.0017
	(0.0199)	(0.0212)
	[-0.1064, -0.0299]	[-0.0483, 0.0383]
N. obs	632	378
Mean rank for 1978 cohort	48.99	33.35

Notes: The table reports the relationship between the upward mobility of 1978 cohort and immigration between 1980 and 2010. The unit of analysis is a commuting zone. The dependent variable is the estimated mean household income rank of children from 1978 birth cohort born to parents at the 25th percentile of the income distribution, taken from Chetty et al. (2024). The independent variable is the percentile of the change in the number of foreign-born residents between 1980 and 2010 as a share of 1980 population. The instrument is the percentile of the predicted change in the number of foreign-born residents as a share of 1980 population, constructed by interacting the 1980 shares of foreign-born population from different countries of origin with leave-out aggregate changes in the sizes of these populations between 1980 and 2010. In all specifications I control for the share of employment in different industries, employment-to-population ratio and unemployment rate, income per capita, share of college graduates, share of the population above 65, log of total population, and share of foreign-born population in 1980, and Census division fixed effects. Below each coefficient I report heteroskedasticity-robust asymptotic standard errors in parentheses, and 95% Bayes bootstrap credible intervals based on 500 replicates in brackets. Mean rank for 1978 cohort refers to the mean of the household income rank of children from 1978 birth cohort born to parents at the 25th percentile of the income distribution across commuting zones.

Appendix Table 14: Upward mobility of 1992 birth cohort and immigration between 1980-2010

	HouseholdIncomeRank	
	White	Black
Panel A. First stage		
$\widehat{Immigration}$	0.3357	0.4191
	(0.0500)	(0.0756)
	[0.2449, 0.427]	[0.2827, 0.5426]
F-stat	45.09	30.71
Panel B. OLS		
Immigration	-0.0193	0.0033
	(0.0047)	(0.0071)
	[-0.0287, -0.0102]	[-0.0089, 0.0158]
Panel C. IV		
Immigration	-0.0318	0.0157
	(0.0186)	(0.0234)
	[-0.0695, 0.0012]	[-0.0231, 0.0684]
N. obs	632	378
Mean rank for 1992 cohort	47.02	36.37

Notes: The table reports the relationship between the upward mobility of 1992 cohort and immigration between 1980 and 2010. The unit of analysis is a commuting zone. The dependent variable is the estimated mean household income rank of children from 1992 birth cohort born to parents at the 25th percentile of the income distribution, taken from Chetty et al. (2024). The independent variable is the percentile of the change in the number of foreign-born residents between 1980 and 2010 as a share of 1980 population. The instrument is the percentile of the predicted change in the number of foreign-born residents as a share of 1980 population, constructed by interacting the 1980 shares of foreign-born population from different countries of origin with leave-out aggregate changes in the sizes of these populations between 1980 and 2010. In all specifications I control for the share of employment in different industries, employment-to-population ratio and unemployment rate, income per capita, share of college graduates, share of the population above 65, log of total population, and share of foreign-born population in 1980, as well as Census division fixed effects. Below each coefficient I report heteroskedasticity-robust asymptotic standard errors in parentheses, and a 95% Bayes bootstrap credible interval based on 500 replicates in brackets. Mean rank for 1992 cohort refers to the mean household income rank of children from 1992 birth cohort born to parents at the 25th percentile of the income distribution.

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