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Abstract

By 2020, children of color under 18 outnumbered non-Hispanic white children in the United States (Vespa and Armstrong, 2020). In this paper, we estimate the effect of this historic demographic transition during which the U.S. has seen its Hispanic population almost triple over the last three decades, on US school segregation. Our estimates using fixed-effect panel regressions, standard shift-share instruments, and push-factor instruments that rely on exogenous Mexican state-level out-migration shocks, show that a ten percentage point increase in the Hispanic student share (approximately equal to the average change across districts in the U.S. during the period of study) are associated with a between 0.1 and 0.2 standard deviation increase in segregation of black and Hispanic students from white and Asian students. This effect is driven by school districts without a history of court-ordered desegregation plans. We also present evidence consistent with a "white flight" in response to the arrival of Hispanic students. Ongoing work will attempt to unravel the underlying mechanisms, in particular, the role of policies such as court-ordered desegregation plans or school finance reforms in mitigating the negative effects of racial diversification on school segregation.

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1 Introduction

The United States has recently undergone a dramatic demographic transition, among the largest in its history. The fraction of the population that is foreign-born is approaching its historic peak (see Figure 1), and the fraction of non-Hispanic whites has fallen from 75% in 1990 to less than 60% today (U.S. Census Bureau, 1992, 2020). Among school-age children, the transition is particularly pronounced. According to NCES public school enrollment statistics (Table 203.50 in De Brey et al. (2021)) children of color now outnumber non-Hispanic white students since 2014. More than a quarter of pre-K through grade 12 students in American schools are now Latinx, and these children outnumber African-American students 2 to 1. Grappling with whether (and where) increased diversity is reflected in more integrated schools and whether (and where) increased diversity instead leads to greater racial isolation of black and Hispanic children is a topic of ongoing interest and debate for economists and policymakers alike (Caetano and Maheshri, 2021; Rabinowitz, Emamdjomeh and Meckler, 2019). This paper contributes to this debate by showing that large (exogenous) flows of Mexican immigrants into US school districts increase segregation of black and Hispanic students. We present evidence consistent with histories of court-ordered segregation plans having mitigated these negative effects.

School segregation by race and ethnicity is an important outcome to study. Reardon et al. (2019) argue that it is one of the strongest predictors of achievement gaps, along with parental income and education. A sizeable literature has found a causal link between segregation and worse academic and life outcomes for black students.[1] For instance, Guryan (2004), Reber (2010) and Johnson (2011) use court-ordered desegregation plans after the Brown decision to identify negative effects of segregation on black achievement, dropout rates and later life socioeconomic and health outcomes. Cutler and Glaeser (1997), Card and Rothstein (2007) and Hanushek, Kain and Rivkin (2009) exploit observational variation in segregation and use panel methods to reach similar conclusions. Given the history of racial segregation in the United States, these papers perhaps justifiably focus on a two-group paradigm, studying the behavioral responses of white parents and the pernicious effects of racial isolation on the outcomes of African-American school children. In some cases, this paradigm has been updated to group black and Hispanic children, but rarely has the focus shifted to the multi-group paradigm necessitated by such a dramatic demographic transition. Notable exceptions include Caetano and Maheshri (2021), who find that Hispanic immigration explains more of the rise in school segregation in urban areas between 2002 and 2018 than other factors, and Fuller et al. (2019), who find that in school districts enrolling at least 10% Latinx students, these children have become less exposed to white peers between 1998 and 2010.

Still, we know very little about how migration trends shape school segregation. Cascio and Lewis (2012) use a standard shift-share instrument to show that in California between 1970 and 2000, white parents exited public schools in response to Hispanic immigration inflows in proportions similar to those observed in

[1] See Fryer (2011) for a review.

response to black migrants from the South before 1970. We build on this analysis in two aspects. First, we focus on the period after which the destination patterns of Mexican migrants to the United States shifted dramatically, bringing large migrant inflows into school districts with long and complex histories of backlash against school integration and high-profile legal and legislative strategies to desegregate schools. Before 1990, nearly 80% of Mexican migrants settled in California or Texas. That fraction fell to under 50% by 2000 (Card and Lewis, 2007), generating a diaspora that spread into MSAs across the South, Midwest, Northeast, and Mountain West (see Figure 3b). Focusing on a sample excluding California and Texas and population changes between 2000 and 2010, we study how the arrival of a new identity group affects segregation in a more diverse set of American communities.

Second, we use three kinds of empirical approaches. Baseline point estimates from fixed-effect panel regressions use data across all school districts in the country from 1988 to 2019, a twenty year period over which the mean school district saw the share of students of Hispanic origin rise by 13 percentage points. A ten percentage point change in the share of students who identify as Hispanic is associated with an approximately twenty percent increase in segregation between black and Hispanic students and white and Asian students, as measured by a variance ratio. This approach identifies causal effects under stringent assumptions but requires less in terms of data. Our other two strategies relax some of the identification assumptions but have a higher data demand.

Next, building on Cascio and Lewis (2012) and Fouka and Tabellini (2020), we adopt a shift-share framework using variation at the commuting zone level and outcomes at the school district level where the 1990 distribution of Mexican immigrants across US metropolitan areas and 2000-2010 immigrant inflows are combined in an instrument to predict actual Hispanic student shares in elementary school. These estimates are approximately twice as large as the baseline, and also statistically different from zero. Finally, we pursue a third identification strategy that depends on exogenous push factors across Mexican sending states. Following Boustan (2010) and Derenoncourt (2022) in studying the Great Migration of African-Americans out of the US South, we exploit exogenous changes in destination school district-level Hispanic student shares between 2000 and 2010 using push factor instruments at the Mexican state level to predict total Mexican state level out-migration by year and assigning inflows to cities using information on destination choices of migrants between 1990 and 2000. This third identification strategy advances on a standard shift-share instrument because it does not rely on an assumption that preexisting shares of Hispanic students or Mexican immigrants are exogenous. Instead, identification comes from the exogeneity of economic shocks in Mexican sending states pushing potential migrants to settle in US MSAs according to preexisting network links, which may be endogenous (Borusyak, Hull and Jaravel, 2019). These estimates, using push factor variation at the MSA level, are somewhat noisier, but paint a similar picture. In addition to increases in segregation between underrepresented minorities and white and Asian children, the rising Hispanic student share is also associated with increases in two-way segregation between Hispanic and white children and between black and white children.

The effects we uncover are driven by school districts without a history of court-ordered desegregation plans. In school districts with histories of court-ordered desegregation plans, these point estimates go in the opposite direction, though we are underpowered to precisely estimate decreases in isolation in these districts. We present suggestive evidence that an intermediate mechanism in the districts driving increases in segregation is the exit of white students in response to the arrival of Hispanic students, mirroring the findings of Cascio and Lewis (2012) in California. We are yet to fully explore the ameliorating histories of court-ordered integration plans, though there is an intriguing possibility that historical experience grappling with integration may facilitate the integration of new identity groups (Kaplan, Spenkuch and Tuttle 2021; Billings, Chyn and Haggag 2021).

Whether inflows simply exacerbate white flight as in California in the 80s or reconfigure the racial paradigm in a multi-group setting is an empirical question. Recent work by Fouka and Tabellini (2020) suggests that Mexican migration improves whites' perceptions of blacks, increases support for pro-black policy, and decreases anti-black hate crimes. Related work has found that counties with recent large increases in Hispanic populations had larger Trump vote shares in 2016 (Newman, Shah and Collingwood, 2018). In addition to updating our understanding of racial segregation in American schools for the twenty-first century, this project contributes to our understanding of the social effects of changing population shares in settings with incumbent minority groups.

The rest of the paper is organized as follows. Section 2 summarizes features of the Latinx Great Migration after 1990 underpinning our identification strategy. Section 3 details the three kinds of empirical strategies we apply, while 4 briefly describes the datasets we use. Section 5 discusses the main results, while 6 concludes and outlines ongoing work.

2 The Latinx Great Migration after 1990

The Immigration and Nationality Act of 1965 repealed immigration quotas by origin country, thereby opening U.S. borders to migrants outside of Northwestern Europe. This resulted in a surge of immigration from Mexico, and most recently from China and India, as shown in Figure 1. Currently, the foreign-born share of the U.S. population nearly surpasses the record-high levels at the turn of the 20th century, while the fraction of school-aged Hispanic children more than doubled in the last three decades. This phenomenon is what we refer to as the "Latinx Great Migration," and the effect of which we study in this paper.

More specifically, we narrow down the time span of our research to post-1990. Around this time, a significant shift occurred in the typical destinations of Mexican migrants, potentially due to the amnesty granted by the 1986 Immigration Reform and Control Act (IRCA) to undocumented people who had been living in the U.S. for at least 5 years. As Card and Lewis (2007) observe in Census data, after 1990 the fraction of Mexicans settling down in California or Texas, two traditional gateway states, falls below 50%. Panel A of Figure 2a confirms this shift in destinations in the Mexican Migration Project dataset that we use in the push-factor identification strategy in this paper. The U.S. Census Bureau's maps in Figures 3a-3b also nicely illustrate the result of the shift: while California and Texas remain the two states with the largest shares of Hispanic population in 2010, the 2000 to 2010 *change* is largest in the Midwest and the South. Therefore, we also restrict our focus to communities *outside* of California and Texas.

The new destination locations of Mexican migrants include cities such as Atlanta and Denver, among others. These location choices could hardly be treated as exogenous; it is more likely that workers were "pulled" to these places with strong labor demand in some locally booming industries of manufacturing.[2] We use three empirical strategies that gradually account for the potential endogeneity of these location choices. The third, which is the most sophisticated but also the most data intensive, establishes network links between Mexican sending states and U.S. destination cities. Building on these links, we then exploit arguably exogenous economic and social Mexican state-level "push factors" to predict changes in the Hispanic student population in U.S destination cities.

3 Empirical Strategy

Consider the following thought experiment: some US school districts (or commuting zones or cities) experience a random influx of Hispanic students, increasing the Hispanic student share by ten percentage points. Ideally, the econometrician would observe school segregation changes in places that received the influx and compare them to those that did not, identifying a causal effect of the demographic shift. To approximate the thought experiment, we apply three empirical strategies:

1. Two-Way Fixed Effect (TWFE) panel regressions at the school district level
2. Simple shift-share instrumental variables regressions à la Cascio and Lewis (2012) using migration shock variation at the commuting zone (CZ) level
3. Shift-share instruments augmented with network links and migration push factors à la Derenoncourt (2022) using shock variation at the metropolitan statistical area (MSA) level in the sub-sample of school districts located in an MSA

These strategies become more sophisticated in terms of identification assumptions, but they also gradually require more (and different) data. We'll discuss next each in more detail.

[2]As Card and Lewis (2007) describes, around the same time, migrants became also more likely to take manufacturing jobs, instead of working in agricultural occupations as was most common previously.

3.1 Fixed effect panel regressions

The fixed-effects panel regressions are estimated simply as follows:

$$Y_{it} = \beta_0 + \beta_1 Hisp_{it} + X_{it}'\Gamma + \lambda_i + \eta_t + \epsilon_{it}, \tag{1}$$

where Y_{it} is a measure of racial segregation in school district i and year t and $Hisp_{it}$ is the percentage share of Hispanic students in school district i and year t. In section 3.4, we describe in more detail how we measure racial segregation. X_{it} are time-varying district-level control variables (share of black students, log enrollment, and the number of elementary schools in the district), λ_i are district fixed effects, η_t are year fixed effects, and ϵ_{it} is an error term. We use data between 1988 and 2019 – see more details below in Section 4. For β_1 to identify the (causal) effect of Hispanic share on segregation, it needs to hold that the within-district changes in the Hispanic share are orthogonal to other determinants of segregation contained in the error term. More formally,

$$E(\epsilon_{it}|Hisp_{iT}, ..., Hisp_{i1}, X_{iT}, ..., X_{i1}) = 0. \tag{2}$$

This is most likely violated if, for instance, Hispanic families move into school districts where segregation is declining (rising) for some reason not captured by the controls (possibly due to some concurrent policy reform). In this case, β_1 would be downward (upward) biased.

Such violations of the strict exogeneity assumption may be mitigated by the use of instrumental variables that shock Hispanic student shares without affecting other determinants of racial segregation. We propose two such strategies exploiting migrant network links between Mexico and the US, which are arguably exogenous with respect to other developments in segregation. We describe these next in more detail, in subsections 3.2 and 3.3, including the underlying identification assumptions.

3.2 Simple Shift-Share Instruments

Following Cascio and Lewis (2012), shift-share estimates assign migrant flows from Mexico between 2000 and 2010 to US destination commuting zones (CZs) in proportion to 2000 Mexican-born shares in CZs. 2000 marks the first census year after the period during which US destination choices of Mexican migrants moved away from California and Texas. Therefore, by 2000, Mexican migrant networks in the US had restabilized (see Figures 2b and 2a).

We now want to estimate a long-differenced version of the school district level panel model we described in equation (1):

$$\Delta Y_{it} = \delta_0 + \delta_1 \Delta Hisp_{it} + X_{it}'\Theta + \Delta\varepsilon_{it}, \tag{3}$$

where, again, Y_{it} is a measure of racial segregation, $Hisp_{it}$ is the percentage share of Hispanic students, X_{it} are time-varying district-level control variables (share of black students, log enrollment and the number of elementary schools in the district), and ε_{it} are random error in school district i and year t. Long differences marked by Δ denote a difference between year t and year 2000. Our main period of interest is 2010-2019 but to provide suggestive evidence for our identification assumption (see below), we will also show pre-trends, 1988-2010. Therefore, note that year t in equation (3) may be either smaller or larger than 2000.

To handle potential violations of the strict exogeneity assumption similar to equation (2), we instrument $\Delta Hisp_{it}$ with the *predicted* change in the Mexican population share in commuting zone (CZ) j between 2000 and 2010:

$$\Delta \hat{Hisp}^{2000-2010} = \frac{{mex_j}^{2000} + \Delta \hat{mex}_j^{2000-2010}}{pop_j^{2000} + \Delta \hat{mex}_j^{2000-2010}} - \frac{{mex_j}^{2000}}{{pop_j}^{2000}}, \tag{4}$$

where pop_j^{2000} (mex_j^{2000}) is size of the (Mexican-born) population in CZ j in 2000, while $\Delta \hat{mex}_j^{2000-2010}$ is the *predicted* number of Mexican immigrants to CZ j between 2000 ad 2010. We define the instrument at the CZ (and not the school district) level because (Mexican-born) population estimates are more easily (and accurately) generated from the US Census at the CZ level than at the school district level. Such aggregation in our instrument does not create any power problems. $\Delta \hat{mex}_j^{2000-2010}$ is created à la Card (2001):

$$\Delta \hat{mex}_j^{2000-2010} = \alpha_j^{2000} \times mig^{2000-2010},$$

where $mig^{2000-2010}$ is the number of all Mexican immigrants into the US between 2000 and 2010, while α_j^{2000} is the proportion of CZ j's Mexican-born population within the whole US's Mexican-born population in 2000:

$$\alpha_j^{2000} = \frac{mex_j^{2000}}{mex^{2000}}.$$

The underlying identification assumption is that the spatial distribution of Mexican-born residents across CZs in 2000 only affects segregation through percentage point increase of the Hispanic student share, i.e. that the 2000 Mexican shares are exogenous with respect to other potential confounders that may affect segregation trends. If, for instance, post-2010 segregation policies respond to 2000 racial shares, as opposed to 2000-2010 changes in them, then the identification assumption is violated. We show pre-2010 trends to provide suggestive evidence that this is not the case. Nevertheless, we also implement a third strategy, also relying on IVs, that has a less strict identification assumption but is more stringent on data. This is described in the next subsection.

3.3 Push Factor Shift Share Instruments

In our final strategy, we will estimate an equation similar to that in equation (3), but at the US city (MSA) – rather than the CZ – level, due to data availability. This time, we instrument for 2000-2010 changes in Hispanic student shares using arguably more exogenous variation in Mexican state-level migration. To do so, we interact variation in location choices of Mexican migrants who moved prior to 2000 with variation in predicted out-migration from Mexican states between 2000 and 2010 using state-level economic and social push factor variables. We then link the resulting prediction of Mexican migration into select U.S. MSAs with school district-level changes in Hispanic student population in our first stage regression. Below, we describe the steps to construct our instrument in more detail.

To construct the Mexican State-U.S. MSA links to establish predetermined migration patterns, we draw on the Mexican Migration Project's (MMP) migrant-level file, as in Munshi (2003) and Chalfin (2013). The questionnaire collects retrospective migration data about Mexican migrants who moved to or took a trip to the U.S. The variables of interest in our analysis include the MSA destinations of Mexican migrants as well as the trip year.

We construct the share of migrants from each Mexican state m who settled in MSA s between 1990 and 2000:

$$\omega_{ms}^{1990-2000} = \frac{mex_{ms}}{mex_m} \tag{5}$$

where mex_{ms} is the number of Mexicans from state m who listed MSA s as their destination between 1990 and 2000, and mex_m is the total number Mexicans migrants from Mexican state m between 1990 and 2000. To illustrate this, Table 1 shows the top US destination cities (MSAs) and their top 3 Mexican sending states from the MMP. Only a subset of US MSAs are ever listed as a destination in the MMP – summary statistics for these MSAs (excluding the ones in California and Texas, to also reflect our sampling choice) and their respective school districts are shown in Table 2.

To predict annual Mexican migration into the U.S., we use the Surveys on Migration at the Borders of Mexico (EMIF Norte) file. This survey has been carried out since 1993 with the objective of knowing the characteristics of the migratory movements at the northern border of Mexico. From this survey, we generate annual migrant counts from each Mexican State (according to the migrant's state of residence) into the United States during our migration period, 2000-2010.

Using the EMIF U.S.-bound migrant counts, we predict out-migration from Mexican states using state-level push factors:

$$mig_{mt} = \phi_0 + Z_{m(t-1)}\phi_1 + \xi_{mt} \tag{6}$$

where mig_{mt} is the out-migration rate for Mexican state m in year t, Z_{mt-1} is a set of push factors (see below) measured in year *t-1* and $\hat{mig}_{mt} = \hat{\phi}_0 + Z_{m(t-1)}\hat{\phi}_1$ is the predicted out-migration rate from Mexican state m in year t.

We then generate predicted migration into U.S. MSAs by multiplying the share of pre-period migrants between each Mexican state and U.S. MSA by the predicted number of migrants leaving that Mexican state between 2000 and 2010:

$$\Delta\hat{mex}_s^{2000-2010} = \sum_{mt} \omega_{ms} \times \hat{mig}_{mt}. \tag{7}$$

Under the assumption that Mexican state-level variation in annual state economic and demographic indicators is uncorrelated with destination MSA characteristics for migrants from those Mexican states, we estimate Mexican state out-migration using a machine learning based procedure. We follow Derenoncourt (2022) and select the set of predictors by applying the Least Absolute Shrinkage and Selection Operator (LASSO) algorithm to a dataset with various Mexican state push factors. Each push factor is measured in year *t-1* and used to predict migration in year *t*. As per equation (6), we obtain the annual predicted number of migrants out of each Mexican state. We then aggregate the total migrants between 2000 and 2010.

The machine selects the best predictors of out-migration from a set of variables documented in the literature to predict Mexican migration. The set of annual variables includes rainfall shocks (Chalfin, 2013; Hunter, Murray and Riosmena, 2013; Munshi, 2003; Pugatch and Yang, 2011; Riosmena, Nawrotzki and Hunter, 2018), state-level Progresa spending (Angelucci, 2004; Parker and Todd, 2017; Stecklov et al., 2005), crime variables (Basu and Pearlman, 2017; Dell, 2015; Orozco-Aleman and Gonzalez-Lozano, 2018), and various proxies for employment, development and poverty (Fernández-Kelly and Massey, 2007; Oliver, 2009; Villarreal and Cid, 2010). We also add up to four lagged versions of each variable to account for delays in migration in response to push factors. LASSO selects the following push factor variables for a given migration year:

- *Progresa Spending in t-2,*
- *Homicide Rates in t-2,*
- *Male Excess Mortality in t-1,*
- *High (1SD) Rainfall Shock in t-2,*
- *High (1SD) Rainfall Shock in t-3,*
- *High (2SD) Rainfall Shock in t-2,*
- *High (2SD) Rainfall Shock in t-3,*

- *Infant Death Female in t-1,*
- *Maternal Mortality Rate in t-1, and*
- *Share Unemployed in t-1.*

We normalize the output from equation (7) by 2000 school district-level population to arrive at our final instrument, as follows:

$$\text{L}\hat{\text{G}}\text{M}_s = \frac{\Delta \hat{mex}_s^{2000-2010}}{pop_s^{2000}} \tag{8}$$

Note that our endogenous variable uses school district level changes in Hispanic (rather than Mexican) student population due to data availability in the NCES. In this strategy, to match the functional form of the instrument in equation (8), we use the percentage – rather than percentage point – change in city-level Hispanic student shares as our endogenous variable:

$$\text{LGM}_s = \frac{\Delta hisp_s^{2000-2010}}{pop_s^{2000}} \tag{9}$$

Together, these constitute our first stage equation, where X_s is a vector of controls:

$$LGM_s = \pi_0 + \pi_1 L\hat{G}M_s + X_s\mu + \nu_s. \tag{10}$$

3.4 Meassures of Segregation: Isolation Index, Variance Ratio and the Theil Index

We measure segregation using a two-group variance ratio, which builds off the more simple idea of an isolation index. The isolation index measures how clustered students from one group are among people like themselves. The question being posed here is "how Hispanic is the average Hispanic student's school?" Or, "how white is the average white student's school?" The isolation index sheds light on a particular aspect of school segregation: the extent to which students in a particular demographic subgroup are isolated from students in other demographic subgroups when attending a particular school, and is calculated as:

$$Isolation = \sum_{i=0}^{n} [\frac{x_i}{X} \times \frac{x_i}{t_i}] \tag{11}$$

However, the isolation index can only be meaningfully interpreted with reference to the racial composition of the district in which the school is located. Therefore, we use the variance ratio (which is simply an adjustment of the isolation index) to account for the racial composition of the school districts.

$$VR = \frac{I - P}{1 - P} \tag{12}$$

where P is the share of the racial group in the district and I is the isolation index. A higher value of the variance ratio VR indicates a higher level of segregation within the school district. The variance ratio ranges from 0 to 100 and is interpreted as the percent segregation in the school district. For example, within districts that had a past court-ordered desegregation plan, the Black-White Variance Ratio is 13.04. This means that the districts are 13 percent as segregated as they could be (Monarrez, 2020).

In the current version of the paper, we use three different variance ratios with the following two groups in each: (i) underrepresented minorities (URM), which includes black and Hispanic students altogether, vs white students; (ii) Hispanic vs white students; and (iii) Black vs White students. This last one will be of particular interest: Regression results with this outcome will show us how the arrival of Hispanic students affects the isolation of an incumbent minority group of students from the majority.

We have also experimented with the Theil Index, which is often used as a measure for multi-group segregation. In our context of schools and cities (school districts or CZs), it measures the "entropic distance" from a perfectly equal distribution of students by comparing the racial composition in the city (school district or CZ) to the schools within that city (district or CZ). In this paper, we have scaled it to range from 0 to 100, where 100 is the least equal distribution of students (full segregation) and 0 is perfect equality (every school in the city has the same shares as the city itself). The mean Theil index in our sample of US cities in 2000 is 6.39, but with substantial variation [0, 74.65]. Although lacking an intuitive interpretation, the appeal of the Theil index is that it is flexible for any number of racial groups which in our paper includes 4 racial groups: White, Blacks, Hispanics, and Asians. As we will see, our results with the Theil index are qualitatively similar to those with the more intuitively interpretable Variance Ratio.

4 Data

Throughout all three empirical strategies, school and district level racial shares and segregation measures are computed using the Common Core Data (CCD) of the National Center for Education Statistics (NCES) collected by the US Department of Education. We use the version cleaned and provided by the Education Data Portal of the Urban Institute. In the present paper, we have restricted our analysis to elementary grade students (Pre-Kindergarden - Grade Five) to abstract away from the potential influence of school choice among middle school and high school students. The simple shift-share, building on Card (2001) and Cascio and Lewis (2012) uses US census data from 1990, 2000, and 2010.

Push-factor estimates also draw on Mexican state-level geolocated rainfall data from the University of Delaware, the Mexican Migration Project community survey, and INEGI (Instituto Nacional de Estadística y Geografía) census data, including the INEGI National Survey of Occupation and Employment (ENOE) and the Population Survey on Mortality. Mexican state-level out-migration counts come from EMIF (Encuestas sobre Migración en las Fronteras Norte, surveys of representative samples of migrants entering the US by land or air). Predetermined links between Mexican origin states and US destination MSAs come from the MMP migrant level file, a survey of households in Mexican states with significant emigration histories covering emigration trips between 1990 and 2000. Finally, records of court-ordered desegregation plans come from the recently updated dataset accompanying Reardon et al. (2012).

5 Results

Table 0 illustrates the results of the fixed effect panel regressions (see equation [1]), our first empirical strategy that is the least data intensive but relies on the most strict identification assumptions. The table shows the key coefficients, $\hat{\beta}_1$, the effect of a percentage point increase in the Hispanic student share in the district on different measures of school segregation displayed in each column header. Using the baseline (1988) means of segregation displayed in the second row, we see that a 1 percentage point inflow of Hispanic students results in a 2.3% increase in the overall segregation, the URM vs White/Asian variance ratio. Breaking this down, this means a larger, 7.7% effect on the isolation of Hispanic students themselves from Whites, but also a significantly positive increase in the segregation of Black students, the incumbent minority groups, from Whites (1.6%). These effects are both statistically and economically significant if we take into account that over the 30-year period we focus on (1988-2019), the Hispanic student share across all US school districts increased by 12%, resulting in a remarkably large, 23%/77%/16% increase in the segregation of URM/Hispanic/Black students from white students on average.

Figure 5 illustrates the first-stage relationship in our simple shift share identification strategy. It shows a clear, strong and positive association: a 1 percentage point increase in the 2000-2010 predicted change of the Mexican-born population share at the CZ level results in a 1.672 percentage point increase in the 2000-2010 actual change of the Hispanic share at the school district level (F-stat=73.551). Building on the relevance of this shift share instrument, the 2SLS estimates for different racial segregation outcomes are shown by Figures 6-8. In these figures, estimates in the post-2010 ("post-migration") period show the main treatment effects, while pre-2000 ("pre-migration") estimates show pre-trends. Under the exogeneity of the instrument, the pre-trends should fluctuate around 0 ((Borusyak, Hull and Jaravel, 2019)). During the migration period, between 2000 and 2010, as exposure to the larger Hispanic student share increases, coefficients gradually change from 0 to the full magnitude of treatment effects. Overall, a higher Hispanic student share in the district increases within-district school segregation of URM/Hispanic/Black students from Whites.

The main results of the third, push-factor instrument identification strategy are shown in Figures 9-13 and Tables 3-9. The first-stage relationship is now weaker but still above the conventional thumb rule of an F-stat of 10 (F-stat=28.66). It shows that a 1 percentage point increase in the predicted Mexican-born population share at the MSA level is associated with a 0.842 percentage point increase in the Hispanic student share at the school district level.

The key finding from the corresponding 2SLS results is that exogenous increases in the Hispanic student share are associated with increases in segregation. As Figures 10-13 and Tables 4-9 show, this finding is true if we use the multi-group Theil index, the black-white variance ratio , the Hispanic-white variance ratio , and a variance ratio that pools black and Hispanic students as underrepresented minorities and white and Asian students as is common in the literature.

Getting at the mechanisms, we explore the heterogeneity of these results with respect to school districts' history of court-ordered segregation measures. Panels (b) and (c) in each of the Figures 10-13 (and corresponding columns Tables 4-9) illustrate the heterogenous effects: the increase in racial segregation in response to an inflow of Hispanic students is fully driven by school districts with no history of court-ordered desegregation plans.

In Table 10, we show that increases in Hispanic student share lead to decreases in the white student share, consistent with a "white flight" mechanism. This is also supported by the fact that we find little movement on isolation of Hispanic from Asian students and less segregation between black and Hispanic students (tables not reported in the current version). These are consistent with mechanisms driven by the responses of white parents to the inflows of Hispanic children.

6 Concluding Remarks and Future Work

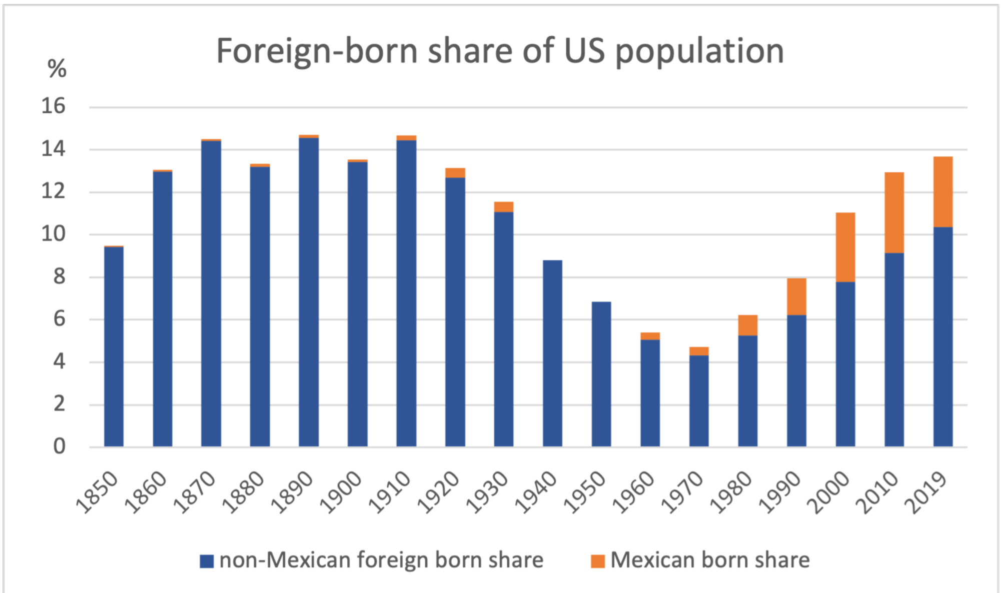
In this paper, we explored the consequences on school segregation of the large demographic transition in the US, which resulted in children of color outnumbering white students in the education system. We pulled together publicly available datasets on race-specific public school enrollment, and migrant counts between Mexican states and US cities to estimate the effect of increases in the share of Hispanic students on the between-school racial segregation in the US. Our estimates using fixed-effect panel regressions, standard shift-share instruments, and push-factor instruments that rely on exogenous Mexican state-level out-migration shocks, showed that a ten percentage point increase in the Hispanic student share (approximately equal to the average change across districts in the U.S. during the period of study) are associated with a between 0.1 and 0.2 standard deviation increase in segregation of black and Hispanic students from white and Asian students. This effect is driven by school districts without a history of court-ordered desegregation plans. We also presented evidence consistent with a "white flight" in response to the arrival of Hispanic students.

There are two strands of ongoing work. First, we are further exploring the "white flight" phenomenon: We are bringing in data on private school enrollment to see if students are actually moving away (ie. out of the district/city) or if they are simply switching out of the public education system. Second, we hope to unpack whether and how histories of court-ordered segregation plans may ameliorate the segregating effects of migrant inflows. The possibility that histories of integration efforts may make it easier to integrate new arrivals is intriguing: As Reardon et al. (2012) documents, many school districts with a history of court-ordered desegregation plans had been released from their orders before our post-period of 2010-2015, and release resulted in a gradual resegregation of black students. Are the effects of court orders more persistent for Latinx students or are our results are driven by districts that had not dismissed their plans?

In addition, in future work, we hope to explore alternative/complementary mechanisms, such as school finance reforms, the effects of English-learner curricular needs, and funding for gifted education as suggestive evidence for potential changes in within-school tracking. Further plans include investigating if increases in segregation documented here translated into lower (higher) test scores for black or Hispanic (white) students.

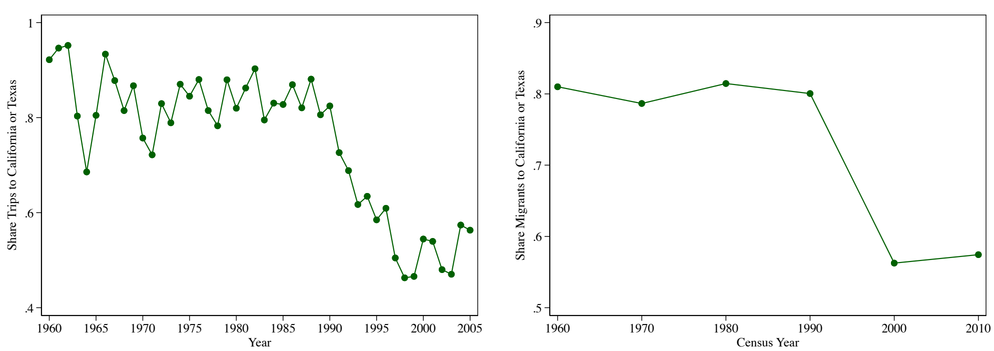
7 Figures

Figure 1: Foreign-Born Share of U.S. population



Notes: This figure illustrates two of the most significant demographic transitions in U.S. history: the large inflows of European migrants at the turn of the 20th century, and the increasing volume of immigration from Latin-America and Asia since 1965. The top country of origin of this second episode has been Mexico, the effect of which we study in this paper. Source: Gibson and Jung (2006), Survey (2010, 2019).

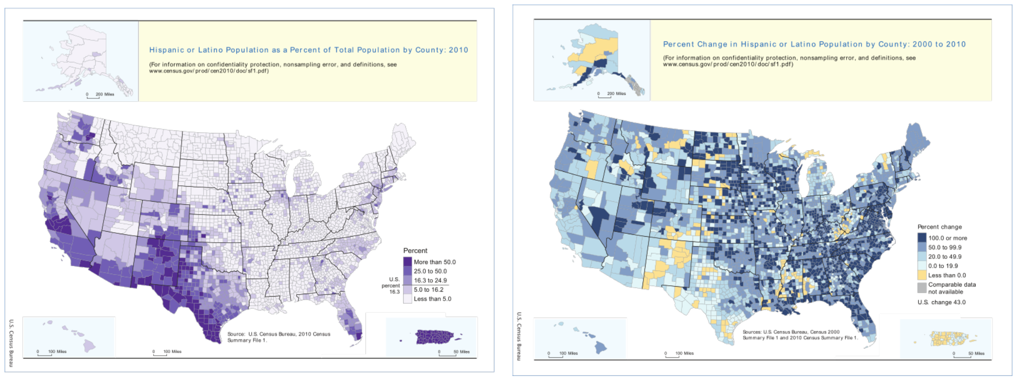
Figure 2: Destination Choice of Mexican Migrants



(a) CA/TX Share (MMP) (b) CA/TX Share (US Census)

Notes: Panel A depicts the fraction of all trips from Mexican sending states to US MSAs with destinations in California or Texas in the Mexican Migration Project's (MMP) migrant file. Panel B depicts the fraction of all US-resident migrants from Mexico in the last five years who are residing in California or Texas at the time of the decadel US Census.

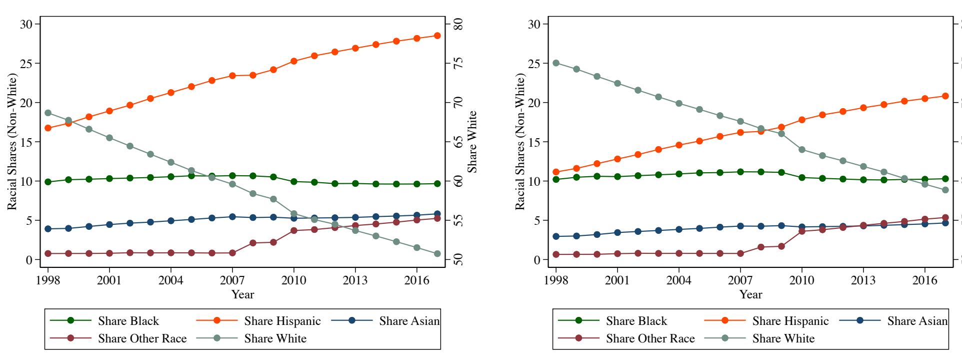
Figure 3: Hispanic Population in the U.S.



(a) Hispanic Population, 2010 (b) Change in Hispanic Population 2000-2010

Notes: This pair of U.S. Census Bureau maps illustrate the shift in Hispanic migrants' destination choices. Before 1990, most Mexican migrants settled down in California and Texas, and still in 2010, these two states have the largest shares of Hispanic population. However, after 1990, Mexican migrants turned more towards cities outside of California and Texas, so that the change in Hispanic shares are now higher in other states. Source: Ennis and Albert (2011).

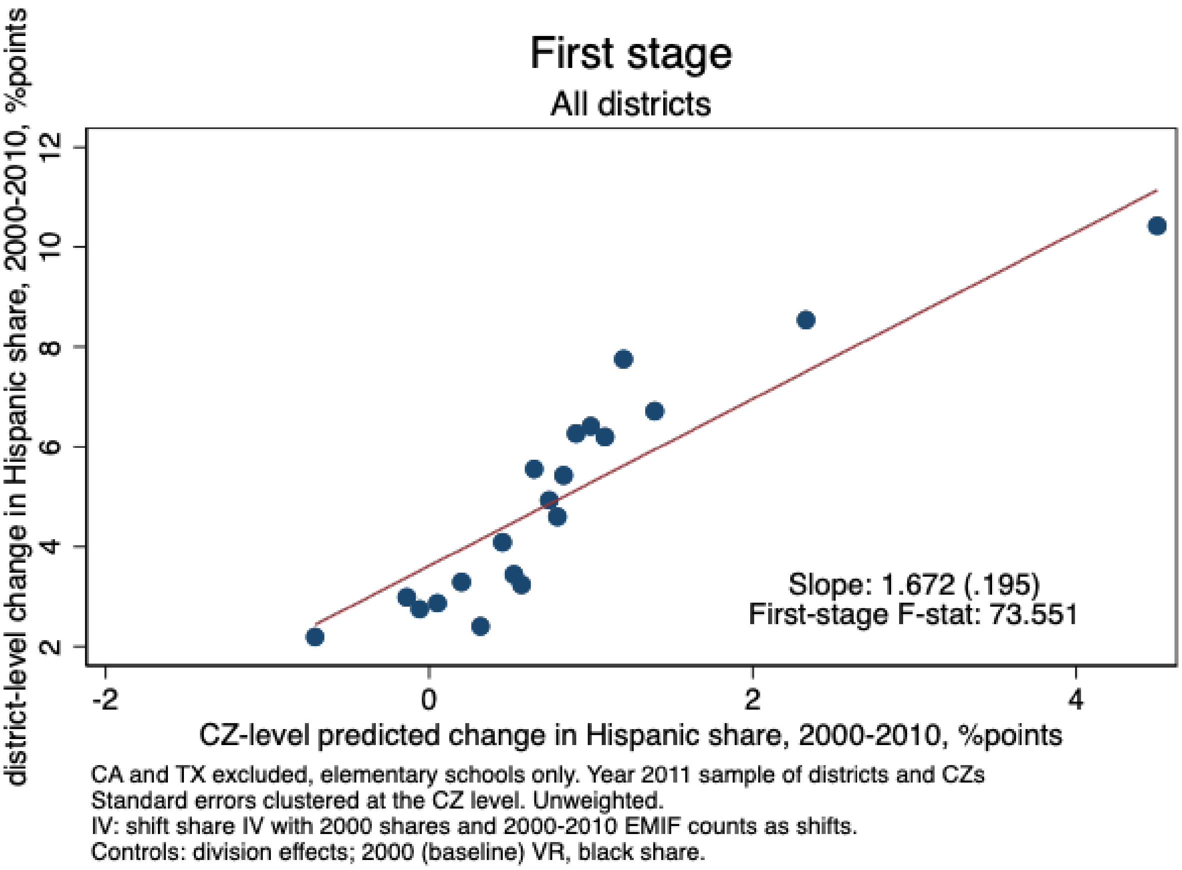
Figure 4: Student Racial Shares



(a) Sample Only (b) All Districts

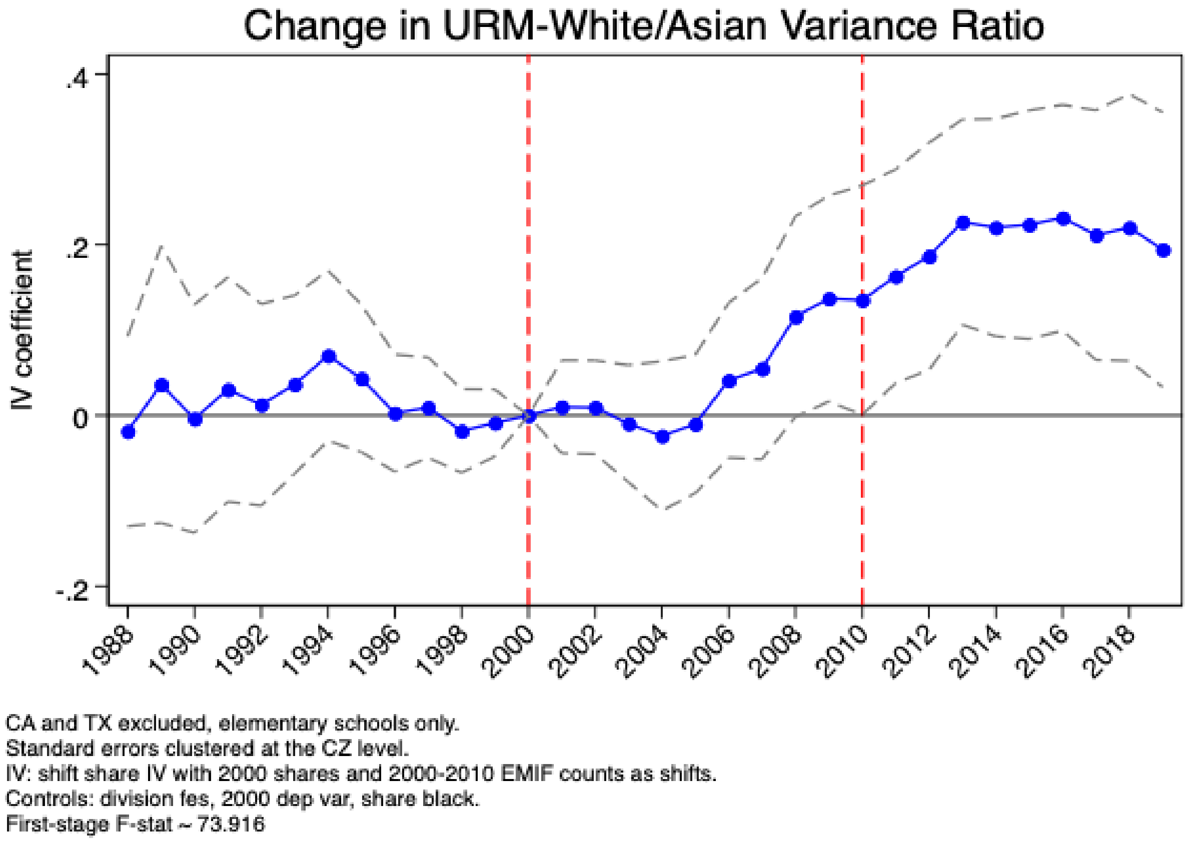
Notes: The figures show the evolution of shares of black/Hispanic/white/Asian/other students over time in our sample of school districts in MSAs outside of California and Texas with MMP representation vs. all school districts. Elementary school (pre-kindergarten to 5th grade) students only. Source: Authors' calculations from NCES CCD 1998-2015. The two panels only show level- but no significant trend differences between our sample vs. all school districts. Both illustrate the steady increase in the share of Hispanic students throughout the period, mirrored by a decline in the white student share. The small jump in the share of other race between 2009 and 2010 is due to the introduction of "2 races" as an additional category in data reporting.

Figure 5:



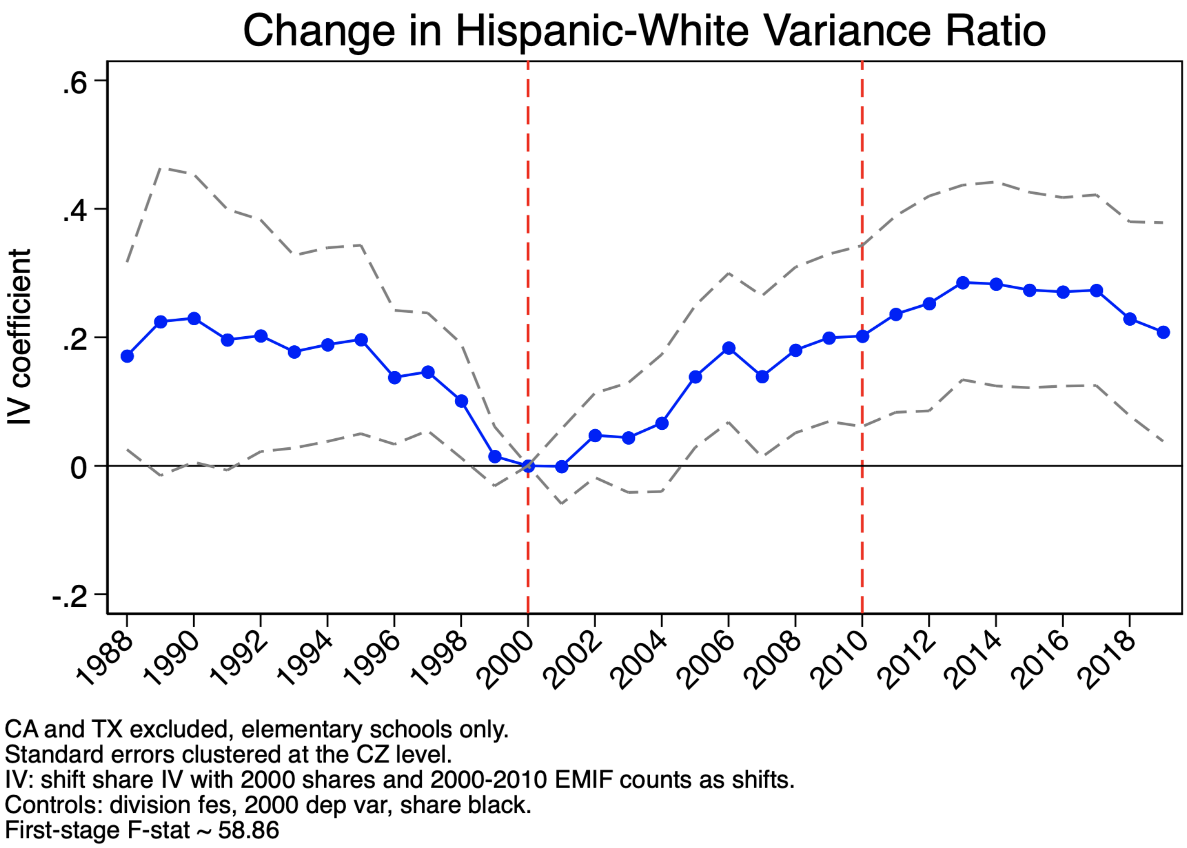
Notes: The figure shows a binned scatter plot of the first stage relationship in the simple shift share strategy. School district level regression with CZ-level right handside variable (instrument). Dep. var.: Percentage point change in Hispanic student share in elementary grades between 2000 and 2010 in school districts. Right handside variable (instrument): predicted Mexican-born population share in CZ assuming population only changed due to predicted Mexican migrant inflows apportioned according to predetermined (2000) shares. See more details in subsection 3.2. First-stage regression statistics show a strong relationship (F-stat=73.551), with a percentage point increase in predicted Mexican-born share resulting in a 1.672 percentage point increase in the share of Hispanic students.

Figure 6:



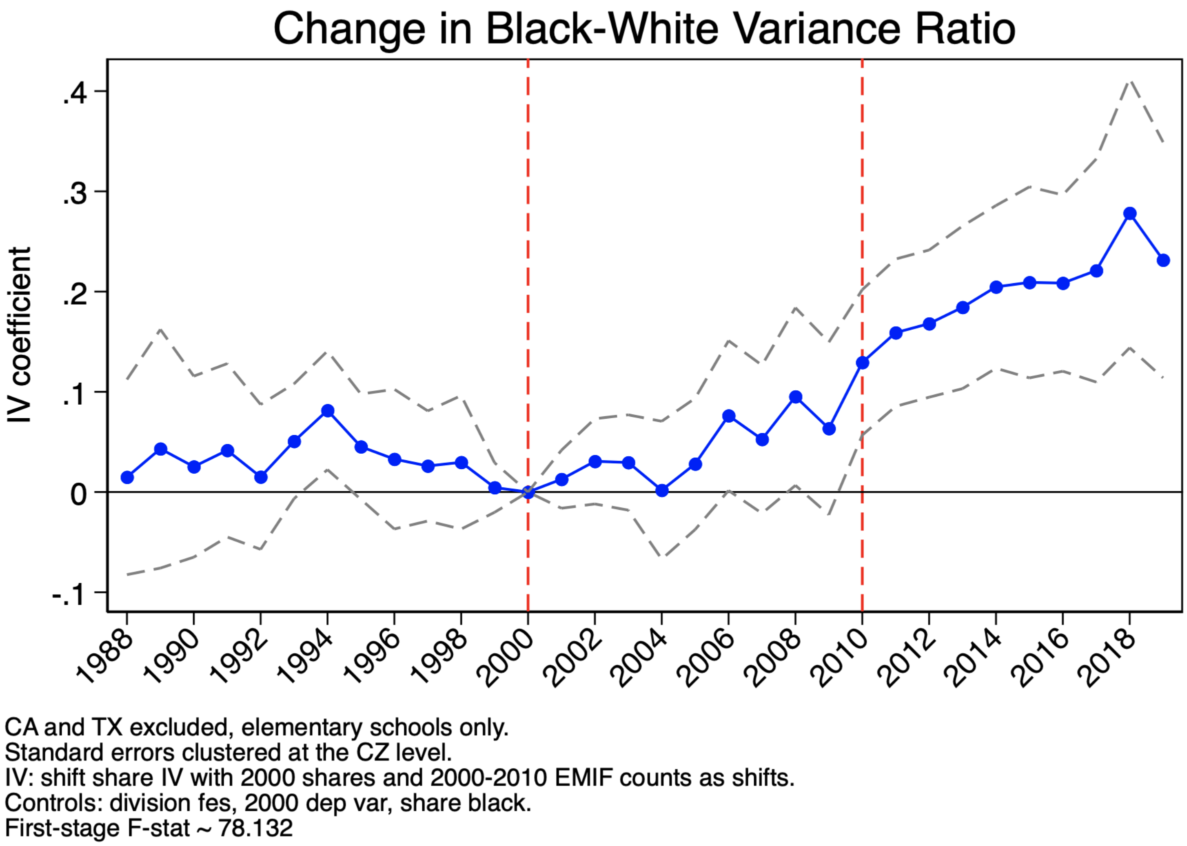
Notes: The figure illustrates the effect of percentage change in Hispanic student share on the change of the URM vs White/Asian variance ratio over time, in the simple shift share strategy. Each dot is a 2SLS coefficient in the IV regression of the URM vs White/Asian variance ratio in the respective year on the percent change in district-level Hispanic student share between 2000 and 2010, instrumented by the percentage point change in CZ-level predicted Mexican population share between 2000 and 2010. Control variables: district-level black student share and census division fixed effects. Dashed lines depict 95% confidence intervals, generated by standard errors clustered at the CZ level. CZ-level predicted Mexican population share between 2000 and 2010 is calculated using predetermined (2000) Mexican-born population share distribution across CZs. See more details in Subsection 3.2. Post-migration period estimates after 2010 measure the causal treatment effects of a 1 percentage point higher increase in Hispanic student share between 2000 and 2010 on school segregation. Pre-period estimates preceding 2000 are placebo treatment effects, which fluctuate around 0 under the exogeneity of our instrument (Borusyak, Hull and Jaravel, 2019). During the migration period, between 2000 and 2010, as exposure to the larger Hispanic student share increases, coefficients gradually change from 0 to the full magnitude of treatment effects. Overall, a higher Hispanic student share in the district increases within-district school segregation.

Figure 7:



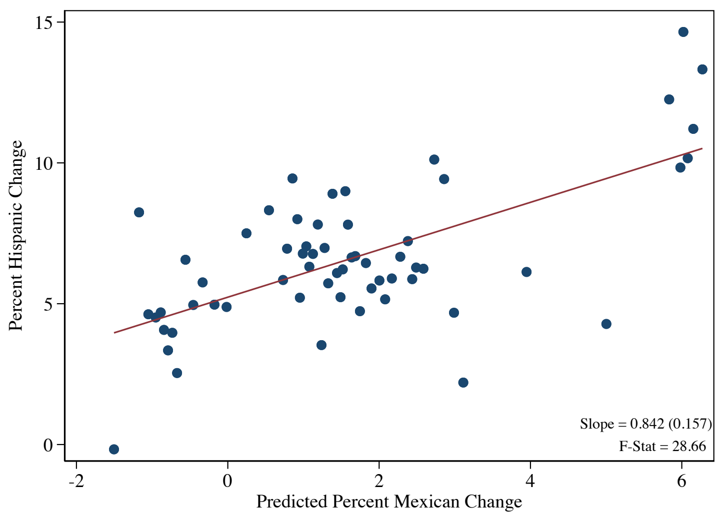
Notes: The figure illustrates the effect of percentage change in Hispanic student share on the change of the Hispanic vs White variance ratio over time, in the simple shift share strategy. Each dot is a 2SLS coefficient in the IV regression of the Hispanic vs White variance ratio in the respective year on the percent change in district-level Hispanic student share between 2000 and 2010, instrumented by the percentage point change in CZ-level predicted Mexican population share between 2000 and 2010. Control variables: district-level black student share and census division fixed effects. Dashed lines depict 95% confidence intervals, generated by standard errors clustered at the CZ level. CZ-level predicted Mexican population share between 2000 and 2010 is calculated using predetermined (2000) Mexican-born population share distribution across CZs. See more details in Subsection 3.2. Post-migration period estimates after 2010 measure the causal treatment effects of a 1 percentage point higher increase in Hispanic student share between 2000 and 2010 on school segregation. Pre-period estimates preceding 2000 are placebo treatment effects, which fluctuate around 0 under the exogeneity of our instrument (Borusyak, Hull and Jaravel, 2019). During the migration period, between 2000 and 2010, as exposure to the larger Hispanic student share increases, coefficients gradually change from 0 to the full magnitude of treatment effects. Overall, a higher Hispanic student share in the district increases within-district school segregation of Hispanic students from Whites.

Figure 8:



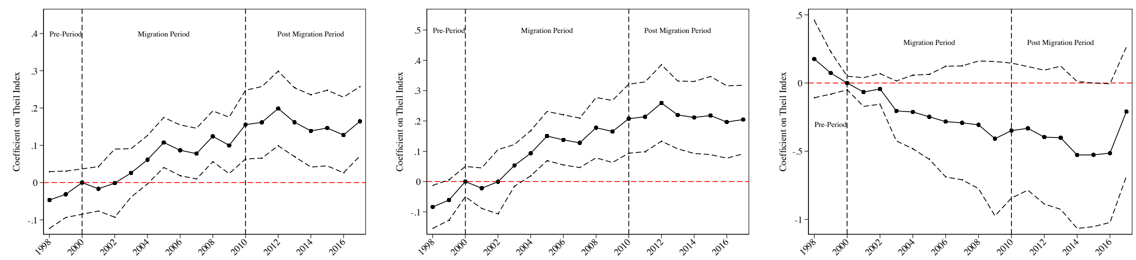
Notes: The figure illustrates the effect of percentage change in Hispanic student share on the change of the Black vs White variance ratio over time, in the simple shift share strategy. Each dot is a 2SLS coefficient in the IV regression of the Black vs White variance ratio in the respective year on the percent change in district-level Hispanic student share between 2000 and 2010, instrumented by the percentage point change in CZ-level predicted Mexican population share between 2000 and 2010. Control variables: district-level black student share and census division fixed effects. Dashed lines depict 95% confidence intervals, generated by standard errors clustered at the CZ level. CZ-level predicted Mexican population share between 2000 and 2010 is calculated using predetermined (2000) Mexican-born population share distribution across CZs. See more details in Subsection 3.2. Post-migration period estimates after 2010 measure the causal treatment effects of a 1 percentage point higher increase in Hispanic student share between 2000 and 2010 on school segregation. Pre-period estimates preceding 2000 are placebo treatment effects, which fluctuate around 0 under the exogeneity of our instrument (Borusyak, Hull and Jaravel, 2019). During the migration period, between 2000 and 2010, as exposure to the larger Hispanic student share increases, coefficients gradually change from 0 to the full magnitude of treatment effects. Overall, a higher Hispanic student share in the district increases within-district school segregation of Black students from Whites.

Figure 9: Push-Factor Instrument First Stage



Notes: The figure shows a binned scatter plot of the first stage relationship in the push factor instrument strategy. The instrument is the predicted change in the Mexican-born population at the MSA-level. The prediction comes from instrumenting for outmigrant counts (from the EMIF) using push factors at the Mexican state level, and apportioning them to US MSAs using preexisting origin-destination links from the MMP data. The endogenous X variable is district-level change in the Hispanic student share between 2000 and 2010. Control variables: district-level black student share and Theil index in 2000, census division fixed effects. Standard errors are clustered at the MSA level in parentheses. City-level predicted Mexican population share between 2000 and 2010 is calculated using 1990-2000 migratory patterns between Mexican sending states and U.S. destination MSAs from the MMP, and LASSO-predicted outmigration from Mexican states as predicted by economic and social ”push factors” (see list in Subsection 3.3). Actual outmigration for the LASSO prediction comes from the EMIF (Norte) border crossing survey.

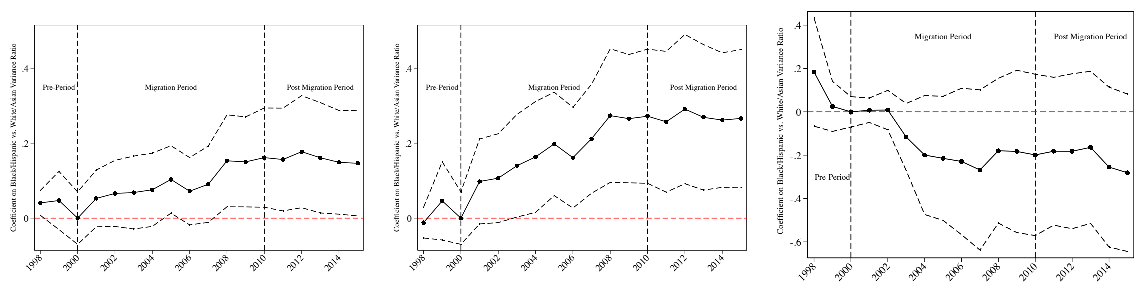
Figure 10: The Effect of 2000-2010 Percent Change in Hispanic Students on the 1998-2015 Theil Index



(a) Full Sample (b) No Court Order (c) Past Court Order

Notes: The three panels in the figure illustrate the effect of percentage change in Hispanic student share on the 4-group Theil index of school segregation over time, on three different samples. Panel (a) includes our full sample of school districts outside of California and Texas in MSAs with MMP representation. Panel (b) is for the subset of these school district that had ever had a court-ordered desegregation plan in place, while Panel (c) is for the subset of these school districts that never had a court-ordered desegregation plan in place. In each panel, each dot is a 2SLS coefficient in the IV regression of the 4-group Theil index in the respective year on the percent change in district-level Hispanic student share between 2000 and 2010, instrumented by the percent change in city-level predicted Mexican population share between 2000 and 2010. Control variables: district-level black student share and Theil index in 2000, census division fixed effects. Dashed lines depict 95% confidence intervals, generated by standard errors clustered at the MSA level. City-level predicted Mexican population share between 2000 and 2010 is calculated using 1990-2000 migratory patterns between Mexican sending states and U.S. destination MSAs from the MMP, and LASSO-predicted outmigration from Mexican states as predicted by economic and social "push factors" (see list in Subsection 3.3). Actual outmigration for the LASSO prediction comes from the EMIF (Norte) border crossing survey. Post-migration period estimates after 2010 measure the causal treatment effects of a 1 percentage point higher increase in Hispanic student share between 2000 and 2010 on multi-group school segregation. Pre-period estimates preceding 2000 are placebo treatment effects, which fluctuate around 0 under the exogeneity of our instrument (Borusyak, Hull and Jaravel, 2019). During the migration period, between 2000 and 2010, as exposure to the larger Hispanic student share increases, coefficients gradually change from 0 to the full magnitude of treatment effects. Overall, a higher Hispanic student share in the district increases within-district school segregation. These effects are largely driven by districts with no court-ordered desegregation plan ever in place, while districts with court-ordered desegregation plans in place mitigate overall effects.

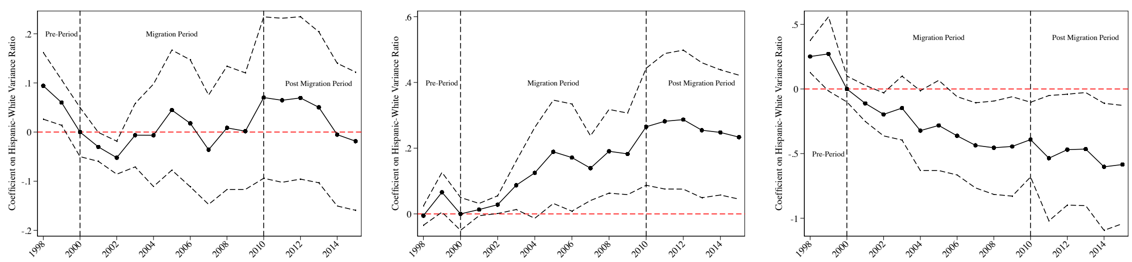
Figure 11: The Effect of 2000-2010 Percent Change in Hispanic Students on the 1998-2015 Black/Hispanic vs. White/Asian Variance Ratio



(a) Full Sample (b) No Court Order (c) Past Court Order

Notes: The three panels in the figure illustrate the effect of percentage change in Hispanic student share on the black and Hispanic vs. white and Asian variance ratio measure of school segregation over time, on three different samples. Panel (a) includes our full sample of school districts outside of California and Texas in MSAs with MMP representation. Panel (b) is for the subset of these school district that had ever had a court-ordered desegregation plan in place, while Panel (c) is for the subset of these school districts that never had a court-ordered desegregation plan in place. In each panel, each dot is a 2SLS coefficient in the IV regression of the black and Hispanic vs. white and Asian variance ratio in the respective year on the percent change in district-level Hispanic student share between 2000 and 2010, instrumented by the percent change in city-level predicted Mexican population share between 2000 and 2010. Control variables: district-level black student share and Theil index in 2000, census division fixed effects. Dashed lines depict 95% confidence intervals, generated by standard errors clustered at the MSA level. City-level predicted Mexican population share between 2000 and 2010 is calculated using 1990-2000 migratory patterns between Mexican sending states and U.S. destination MSAs from the MMP, and LASSO-predicted outmigration from Mexican states as predicted by economic and social "push factors" (see list in Subsection 3.3). Actual outmigration for the LASSO prediction comes from the EMIF (Norte) border crossing survey. Post-migration period estimates after 2010 measure the causal treatment effects of a 1 percentage point higher increase in Hispanic student share between 2000 and 2010 on the isolation of black and Hispanic students. Pre-period estimates preceding 2000 are placebo treatment effects, which fluctuate around 0 under the exogeneity of our instrument (Borusyak, Hull and Jaravel, 2019). During the migration period, between 2000 and 2010, as exposure to the larger Hispanic student share increases, coefficients gradually change from 0 to the full magnitude of treatment effects. Overall, a higher Hispanic student share in the district increases the within-district isolation of black and Hispanic students. These effects are largely driven by districts with no court-ordered desegregation plan ever in place, while districts with court-ordered desegregation plans in place somewhat mitigate overall effects.

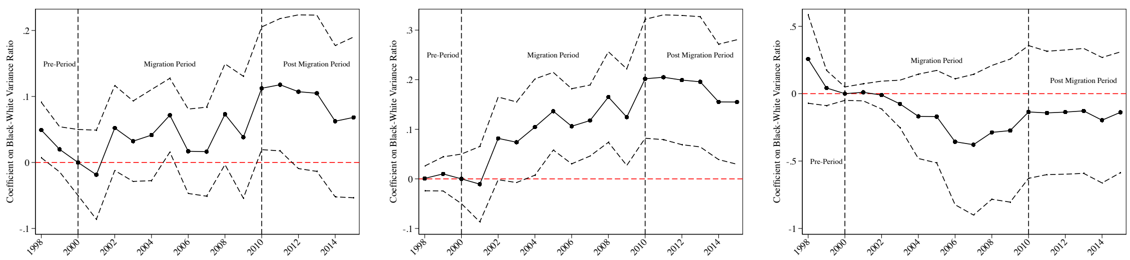
Figure 12: The Effect of 2000-2010 Percent Change in Hispanic Students on the 1998-2015 Hispanic-White Variance Ratio



(a) Full Sample (b) No Court Order (c) Past Court Order

Notes: The three panels in the figure illustrate the effect of percentage change in Hispanic student share on the Hispanic-white variance ratio measure of school segregation over time, on three different samples. Panel (a) includes our full sample of school districts outside of California and Texas in MSAs with MMP representation. Panel (b) is for the subset of these school district that had ever had a court-ordered desegregation plan in place, while Panel (c) is for the subset of these school districts that never had a court-ordered desegregation plan in place. In each panel, each dot is a 2SLS coefficient in the IV regression of the Hispanic-white variance ratio in the respective year on the percent change in district-level Hispanic student share between 2000 and 2010, instrumented by the percent change in city-level predicted Mexican population share between 2000 and 2010. Control variables: district-level black student share and Theil index in 2000, census division fixed effects. Dashed lines depict 95% confidence intervals, generated by standard errors clustered at the MSA level. City-level predicted Mexican population share between 2000 and 2010 is calculated using 1990-2000 migratory patterns between Mexican sending states and U.S. destination MSAs from the MMP, and LASSO-predicted outmigration from Mexican states as predicted by economic and social "push factors" (see list in Subsection 3.3). Actual outmigration for the LASSO prediction comes from the EMIF (Norte) border crossing survey. Post-migration period estimates after 2010 measure the causal treatment effects of a 1 percentage point higher increase in Hispanic student share between 2000 and 2010 on the isolation of Hispanic students. Pre-period estimates preceding 2000 are placebo treatment effects, which fluctuate around 0 under the exogeneity of our instrument (Borusyak, Hull and Jaravel, 2019). During the migration period, between 2000 and 2010, as exposure to the larger Hispanic student share increases, coefficients gradually change from 0 to the full magnitude of treatment effects. Overall, a higher Hispanic student share in the district have an ambiguous effect on the within-district isolation of Hispanic students. However, there is a clean heterogeneity between districts with and without court-ordered desegregation plans, with the latter increasing the isolation of Hispanic students and the former mitigating.

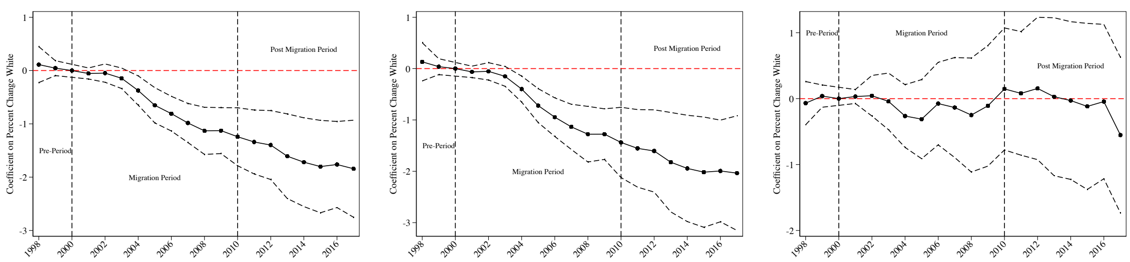
Figure 13: The Effect of 2000-2010 Percent Change in Hispanic Students on the 1998-2015 Black-White Variance Ratio



(a) Full Sample (b) No Court Order (c) Past Court Order

Notes: The three panels in the figure illustrate the effect of percentage change in Hispanic student share on the black-white variance ratio measure of school segregation over time, on three different samples. Panel (a) includes our full sample of school districts outside of California and Texas in MSAs with MMP representation. Panel (b) is for the subset of these school district that had ever had a court-ordered desegregation plan in place, while Panel (c) is for the subset of these school districts that never had a court-ordered desegregation plan in place. In each panel, each dot is a 2SLS coefficient in the IV regression of the black-white variance ratio in the respective year on the percent change in district-level Hispanic student share between 2000 and 2010, instrumented by the percent change in city-level predicted Mexican population share between 2000 and 2010. Control variables: district-level black student share and Theil index in 2000, census division fixed effects. Dashed lines depict 95% confidence intervals, generated by standard errors clustered at the MSA level. City-level predicted Mexican population share between 2000 and 2010 is calculated using 1990-2000 migratory patterns between Mexican sending states and U.S. destination MSAs from the MMP, and LASSO-predicted outmigration from Mexican states as predicted by economic and social "push factors" (see list in Subsection 3.3). Actual outmigration for the LASSO prediction comes from the EMIF (Norte) border crossing survey. Post-migration period estimates after 2010 measure the causal treatment effects of a 1 percentage point higher increase in Hispanic student share between 2000 and 2010 on the isolation of black students. Pre-period estimates preceding 2000 are placebo treatment effects, which fluctuate around 0 under the exogeneity of our instrument (Borusyak, Hull and Jaravel, 2019). During the migration period, between 2000 and 2010, as exposure to the larger Hispanic student share increases, coefficients gradually change from 0 to the full magnitude of treatment effects. Overall, a higher Hispanic student share in the district increases the within-district isolation of black students. These effects are largely driven by districts with no court-ordered desegregation plan ever in place, while districts with court-ordered desegregation plans in place mitigate overall effects.

Figure 14: The Effect of 2000-2010 Percent Change in Hispanic Students on White Flight



(a) Full Sample (b) No Court Order (c) Past Court Order

Notes: The three panels in the figure illustrate the effect of percentage change in Hispanic student share on the percent change in the white student share over time, on three different samples. Panel (a) includes our full sample of school districts outside of California and Texas in MSAs with MMP representation. Panel (b) is for the subset of these school district that had ever had a court-ordered desegregation plan in place, while Panel (c) is for the subset of these school districts that never had a court-ordered desegregation plan in place. In each panel, each dot is a 2SLS coefficient in the IV regression of the percent change in the white student share in the respective year on the percent change in district-level Hispanic student share between 2000 and 2010, instrumented by the percent change in city-level predicted Mexican population share between 2000 and 2010. Control variables: district-level black student share and Theil index in 2000, census division fixed effects. Dashed lines depict 95% confidence intervals, generated by standard errors clustered at the MSA level. City-level predicted Mexican population share between 2000 and 2010 is calculated using 1990-2000 migratory patterns between Mexican sending states and U.S. destination MSAs from the MMP, and LASSO-predicted outmigration from Mexican states as predicted by economic and social "push factors" (see list in Subsection 3.3). Actual outmigration for the LASSO prediction comes from the EMIF (Norte) border crossing survey. Post-migration period estimates after 2010 measure the causal treatment effects of a 1 percentage point higher increase in Hispanic student share between 2000 and 2010 on the percent change in the white student share. Pre-period estimates preceding 2000 are placebo treatment effects, which fluctuate around 0 under the exogeneity of our instrument (Borusyak, Hull and Jaravel, 2019). During the migration period, between 2000 and 2010, as exposure to the larger Hispanic student share increases, coefficients gradually change from 0 to the full magnitude of treatment effects. Overall, a higher Hispanic student share in the district results in a larger percentage increase in the white student share. These effects are largely driven by districts with no court-ordered desegregation plan ever in place, while districts with court-ordered desegregation plans experience no change in their white student share at all.

8 Tables

Table 0: Fixed Effect Panel Estimates

	URM-White/Asian Variance Ratio	Hispanic-White Variance Ratio	Black-White Variance Ratio
District Share Hispanic	0.09***	0.15***	0.06***
	(0.01)	(0.02)	(0.01)
1988 Dep. Var Mean	3.90	1.94	3.73
District FE	X	X	X
Year FE	X	X	X
Observations	113407	113397	113397

CA and TX excluded. Standard errors clustered at the district level.
Time varying covariates include district share black, log total enrollment and number of elementary schools in the district.
Mean change in hispanic share between 1988 and 2019 is 12 percentage points.

Notes: The table shows the fixed effect panel estimates for equation 1. School district level panel regressions between 1988 and 2019. Dependent variables, variance ratios as measures of segregation between different race categories, are shown in each column header. Right handside variable of interest: Hispanic student share in elementary grade levels. The estimates suggest that a 1 percentage point increase in the Hispanic student share results in

Table 1: Top US Destination MSA and their Top Mexican Sending States (1990-2000)

MSA Destination	***Top Sending Mexican States***	***Omega***	***State-MSA Trips***	***Total MSA Trips***
Chicago, IL	Jalisco	0.1704	629	2117
	Guanajuato	0.1714	386	2117
	Mexico	0.3797	319	2117
New York, NY	Puebla	0.3685	416	713
	Morelos	0.1344	150	713
	Tlaxcala	0.2903	41	713
Atlanta, GA	Jalisco	0.0354	130	517
	Guanajuato	0.0467	105	517
	Guerrero	0.2198	52	517
Phoenix-Mesa, AZ	Chihuahua	0.1656	139	482
	Durango	0.0842	73	482
	Guanajuato	0.0312	70	482
Portland-Vancouver, OR-WA	Yucatan	0.2901	314	360
	Morelos	0.0197	22	360
	Mexico	0.0169	14	360
Denver, CO	Yucatan	0.1045	113	352
	Chihuahua	0.0837	70	352
	Guanajuato	0.0167	38	352
Las Vegas, NV-AZ	Jalisco	0.0443	163	342
	Nayarit	0.1009	45	342
	Hidalgo	0.1006	25	342
Minneapolis-St, Paul, MN-WI	Morelos	0.2975	332	332
Philadelphia, PA-NJ	Guanajuato	0.1066	240	285
	Michoacan	0.0222	18	285
	Puebla	0.0121	14	285
Tulsa, OK	Aguascalientes	0.2625	88	88

Notes: The table shows the top 10 MSA destinations in the MMP migrant level file between 1990 and 2000 (outside of California and Texas, which we exclude from our sample). Also depicted are the top sending Mexican states to that MSA, the corresponding Omega/MMP-MSA link, (see Equation 1), the total trips from that Mexican state to the MSA, and the total of trips to that MSA from any sending Mexican state, all between 1990 and 2000.

Table 2: Summary Statistics on MMP Represented MSA (Excluding California and Texas)

			Panel A: MSA Level		
Variable	***Mean***	***SD***	***Min.***	***Max.***	***Observations***
% Mexican 2000	4.395	5.148	0.418	24.550	66
% Mexican 2010	6.689	6.636	0.682	30.485	66
% Black 2000	11.768	8.583	0.367	44.273	66
% Black 2010	12.474	8.798	0.541	46.892	66
Number of School Districts	24.318	33.374	1	198	66
Share in Census Division					
- New England	1.52				66
- Middle Atlantic	18.18				66
- East North Central	19.7				66
- West North Central	9.09				66
- South Atlantic	19.7				66
- East South Central	6.06				66
- West South Central	3.03				66
- Mountain	16.67				66
- Pacific	6.06				66
			Panel B: District Level		
Variable	***Mean***	***SD***	***Min.***	***Max.***	***Observations***
% Hispanic 2000	10.09	16.42	0	99.74	1,252
% Hispanic 2010	16.98	19.69	0	99.65	1,252
% Black 2000	11.98	19.17	0	99.11	1,252
% Black 2010	12.27	18.46	0	98.93	1,252
Multi-Group Theil Index 2000	6.39	7.88	0	74.65	1,252
Multi-Group Theil Index 2010	5.69	7.06	0.03	58.91	1,252
Variance Ratio 2000 (Black/Hispanic vs. White/Asian)	5.11	9.06	0	98.85	1,252
Variance Ratio 2010 (Black/Hispanic vs. White/Asian)	5.42	8.60	0	63.72	1,252
Number of School per District	10.05	20.93	2	475	1,252
Share in Census Division					
- New England	7.59				1,252
- Middle Atlantic	28.91				1,252
- East North Central	32.43				1,252
- West North Central	9.42				1,252
- South Atlantic	7.67				1,252
- East South Central	2.00				1,252
- West South Central	2.00				1,252
- Mountain	6.79				1,252
- Pacific	3.19				1,252

Notes: The table shows descriptive statistics at both the MSA and the school district level. The MSA level observations include MSAs only within our sample i.e excluding California, Texas, and MSAs that do not have representation in the Mexican Migration Project. This leaves us with 66 MSAs that make up 1,252 school districts in our sample. MSA-level racial shares are pulled from the 2000 and 2010 US Census, whereas the district level racial shares are pulled from the NCES.

Table 3. First Stage

	(1)	(2)	(3)	(4)	(5)
	Percent Increase Hispanic Students				
Predicted Percent Increase Mexican	1.201***	1.059***	1.040***	1.064***	1.116***
	(0.338)	(0.128)	(0.141)	(0.136)	(0.343)
Share Black 2000 (School District)			0.044	0.0736	-0.0554*
			(0.036)	(0.059)	(0.030)
Theil 2000 (School District)			-0.0528	-0.0361	0.00134
			(0.061)	(0.069)	(0.055)
Census Division Fixed Effects		Yes	Yes	Yes	Yes
Court Ordered Desegregation Plan				No	Yes
Observations	1,252	1,252	1,252	1032	220
adj. R-sq	0.07	0.15	0.16	0.187	0.085
F-Stat on Instrument	12.60	68.73	54.22	61.09	10.59

Notes: The table shows the first stage relationship between our instrument and the percent change in Hispanic student population. The instrument is the predicted change in the Mexican-Born population at the MSA-level. The prediction comes from instrumenting for out-migration counts (from the EMIF) using push factors at the Mexican state level, and apportioning them to US MSAs using using pre-existing origin-destination links from the MMP data. The endogenous X variable is district-level percent change in the Hispanic student population between 2000 and 2010. Control variables include 2000 district-level black student share, 2000 district-level Theil index and census division fixed effects. Standard errors are clustered at the MSA level and shown in parentheses. City-level predicted Mexican population change between 2000 and 2010 is calculated using 1990-2000 migratory patterns between Mexican sending states and U.S. destination MSAs from the MMP, and LASSO-predicted out-migration from Mexican states as predicted by economic and social ”push factors” (see list in Subsection 3.3). Actual out-migration counts for the LASSO prediction comes from the EMIF (Norte) border crossing survey.

Table 4. IV 2SLS on Multi Group Theil

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
	Multi Group Theil								
	Full Sample			No Court Order Desegregation Plan			Past Court Order Desegregation Plan		
	Reduced Form	***OLS***	***IV 2SLS***	***Reduced Form***	***OLS***	***IV 2SLS***	***Reduced Form***	***OLS***	***IV 2SLS***
Predicted Percent Increase Mexican	0.200***			0.266***			-0.0983		
	(0.051)			(0.065)			(0.133)		
Percent Increase Hispanic Students		0.0165	0.193***		0.0171	0.250***		0.0341	-0.0881
		(0.016)	(0.049)		(0.017)	(0.063)		(0.032)	(0.130)
Share Black 2000	0.0247***	0.0252***	0.0162*	0.00997	0.013	-0.00846	0.0188	0.0204	0.0139
	(0.009)	(0.009)	(0.009)	(0.007)	(0.009)	(0.021)	(0.027)	(0.026)	(0.026)
Multi-Group Theil 2000	0.686***	0.688***	0.696***	0.594***	0.590***	0.603***	0.772***	0.766***	0.772***
	(0.041)	(0.042)	(0.039)	(0.064)	(0.063)	(0.055)	(0.048)	(0.045)	(0.048)
Census Division Fixed Effects	X	X	X	X	X	X	X	X	X
Mean Multi Group Theil	5.53	5.53	5.53	4.43	4.43	4.43	10.69	10.69	10.69
N	1252	1252	1252	1032	1032	1032	220	220	220
adj. R-sq	0.734	0.731	0.668	0.610	0.600	0.374	0.803	0.803	0.793

Notes: The table shows the IV 2SLS relationship between our instrument for increase in Hispanic student population and the 4-Group Theil in the 2011 school year. We show the reduced form, the OLS and IV 2SLS estimates for the full sample of school districts in our analysis (1,252 school districts). We also show a heterogeneity cut that splits our sample into school districts that have had a past court ordered desegregation (columns 7, 8 and 9) plan prior to the year 2000 and those that did not (columns 4, 5 and 6). We always include census division fixed effects and control for the 2000 share black at the district level and the district level 4-group Theil in 2000. Standard errors are clustered at the MSA level and shown in parentheses.

Table 5. IV 2SLS on Black-White Variance Ratio

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
	Black-White Variance Ratio								
	Full Sample			No Court Order Desegregation Plan			Past Court Order Desegregation Plan		
	Reduced Form	***OLS***	***IV 2SLS***	***Reduced Form***	***OLS***	***IV 2SLS***	***Reduced Form***	***OLS***	***IV 2SLS***
Predicted Percent Increase Mexican	0.130**			0.235***			-0.156		
	(0.057)			(0.065)			(0.227)		
Percent Increase Hispanic Students		0.0303	0.125**		0.0291	0.219***		0.0749	-0.143
		(0.020)	(0.054)		(0.022)	(0.061)		(0.052)	(0.234)
Share Black 2000	0.00964	0.00884	0.00446	-0.0129	-0.0123	-0.0304*	0.0163	0.019	0.00764
	(0.015)	(0.014)	(0.012)	(0.010)	(0.010)	(0.017)	(0.033)	(0.031)	(0.031)
Black-White Variance Ratio 2000	0.737***	0.739***	0.740***	0.665***	0.668***	0.677***	0.788***	0.780***	0.791***
	(0.057)	(0.057)	(0.055)	(0.094)	(0.094)	(0.084)	(0.069)	(0.066)	(0.071)
Census Division Fixed Effects	X	X	X	X	X	X	X	X	X
Mean Black-White Variance Ratio	5.05	5.05	5.05	3.35	3.35	3.35	13.04	13.04	13.04
N	1252	1252	1252	1032	1032	1032	220	220	220
adj. R-sq	0.682	0.682	0.673	0.555	0.552	0.479	0.72	0.721	0.705

Notes: Table 5 shows the IV 2SLS relationship between our instrument for increase in Hispanic student population and the Black-White Variance Ratio in the 2011 school year. We show the reduced form, the OLS and IV 2SLS estimates for the full sample of school districts in our analysis (1,252 school districts). We also show a heterogeneity cut that splits our sample into school districts that have had a past court ordered desegregation (columns 7, 8 and 9) plan prior to the year 2000 and those that did not (columns 4, 5 and 6). We always include census division fixed effects and control for the 2000 share black at the district level and the district level Black-White Variance Ratio in 2000. Standard errors are clustered at the MSA level and shown in parentheses.

Table 6. IV 2SLS on Hispanic-White Variance Ratio

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
	Hispanic-White Variance Ratio								
	Full Sample			**No Court Order Desegregation Plan**			**Past Court Order Desegregation Plan**		
	Reduced Form	***OLS***	***IV 2SLS***	***Reduced Form***	***OLS***	***IV 2SLS***	***Reduced Form***	***OLS***	***IV 2SLS***
Predicted Percent Increase Mexican	0.0876			0.332***			-0.778***		
	(0.088)			(0.090)			(0.257)		
Percent Increase Hispanic Students		0.00271	0.0879		0.0188	0.324***		-0.0119	-0.773**
		(0.023)	(0.092)		(0.033)	(0.096)		(0.095)	(0.314)
Share Black 2000	0.0295	0.0297	0.0283	-0.0119	-0.00928	-0.028	0.0884**	0.0817*	0.0253
	(0.026)	(0.025)	(0.025)	(0.018)	(0.019)	(0.032)	(0.037)	(0.048)	(0.050)
Hispanic-White Variance Ratio 2000	0.775***	0.777***	0.766***	0.748***	0.754***	0.700***	0.794***	0.772***	0.888***
	(0.079)	(0.080)	(0.081)	(0.134)	(0.138)	(0.123)	(0.071)	(0.066)	(0.127)
Census Division Fixed Effects	X	X	X	X	X	X	X	X	X
Mean Hispanic-White Variance Ratio	5.71	5.71	5.71	4.42	4.42	4.42	11.78	11.78	11.78
N	1252	1252	1252	1032	1032	1032	220	220	220
adj. R-sq	0.668	0.667	0.659	0.596	0.589	0.43	0.73	0.717	0.479

Notes: Table 6 shows the IV 2SLS relationship between our instrument for increase in Hispanic student population and the Hispanic-White Variance Ratio in the 2011 school year. We show the reduced form, the OLS and IV 2SLS estimates for the full sample of school districts in our analysis (1,252 school districts). We also show a heterogeneity cut that splits our sample into school districts that have had a past court ordered desegregation (columns 7, 8 and 9) plan prior to the year 2000 and those that did not (columns 4, 5 and 6). We always include census division fixed effects and control for the 2000 share black at the district level and the district level Hispanic-White Variance Ratio in 2000. Standard errors are clustered at the MSA level and shown in parentheses.

Table 7. IV 2SLS on Hispanic-Black Variance Ratio

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
	Black-Hispanic Variance Ratio								
	Full Sample			**No Court Order Desegregation Plan**			**Past Court Order Desegregation Plan**		
	Reduced Form	***OLS***	***IV 2SLS***	***Reduced Form***	***OLS***	***IV 2SLS***	***Reduced Form***	***OLS***	***IV 2SLS***
Predicted Percent Increase Mexican	-0.00753			-0.204**			0.175		
	(0.068)			(0.100)			(0.345)		
Percent Increase Hispanic Students		-0.0336	-0.0074		-0.0476*	-0.201**		-0.00132	0.16
		(0.020)	(0.066)		(0.024)	(0.090)		(0.075)	(0.309)
Share Black 2000	0.0933***	0.0946***	0.0935***	0.0319	0.033	0.0450*	0.132**	0.135**	0.141**
	(0.024)	(0.024)	(0.024)	(0.024)	(0.023)	(0.024)	(0.059)	(0.062)	(0.059)
Black-Hispanic Variance Ratio 2000	0.333***	0.331***	0.333***	0.220***	0.221***	0.208***	0.514***	0.518***	0.511***
	(0.070)	(0.070)	(0.070)	(0.049)	(0.051)	(0.047)	(0.170)	(0.170)	(0.166)
Census Division Fixed Effects	X	X	X	X	X	X	X	X	X
Mean Hispanic-Black Variance Ratio	6.52	6.52	6.52	5.59	5.59	5.59	10.87	10.87	10.87
N	1252	1252	1252	1032	1032	1032	220	220	220
adj. R-sq	0.325	0.327	0.326	0.18	0.182	0.135	0.566	0.565	0.553

Notes: Table 7 shows the IV 2SLS relationship between our instrument for increase in Hispanic student population and the Hispanic-Black Variance Ratio in the 2011 school year. We show the reduced form, the OLS and IV 2SLS estimates for the full sample of school districts in our analysis (1,252 school districts). We also show a heterogeneity cut that splits our sample into school districts that have had a past court ordered desegregation (columns 7, 8 and 9) plan prior to the year 2000 and those that did not (columns 4, 5 and 6). We always include census division fixed effects and control for the 2000 share black at the district level and the district level Hispanic-Black Variance Ratio in 2000. Standard errors are clustered at the MSA level and shown in parentheses.

Table 8. IV 2SLS on Hispanic-Asian Variance Ratio

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
	Hispanic-Asian Variance Ratio								
	Full Sample			No Court Order Desegregation Plan			Past Court Order Desegregation Plan		
	Reduced Form	*OLS*	*IV 2SLS*	*Reduced Form*	*OLS*	*IV 2SLS*	*Reduced Form*	*OLS*	*IV 2SLS*
Predicted Percent Increase Mexican	-0.056			-0.0734			-0.202		
	(0.107)			(0.111)			(0.238)		
Percent Increase Hispanic Students		-0.0674***	-0.0591		-0.0482**	-0.0736		-0.0940**	-0.191
		(0.022)	(0.107)		(0.020)	(0.107)		(0.046)	(0.209)
Share Black 2000	0.0812***	0.0852***	0.0846***	0.0159	0.0201	0.0227	0.130**	0.125**	0.124***
	(0.025)	(0.025)	(0.027)	(0.015)	(0.014)	(0.019)	(0.049)	(0.047)	(0.044)
Hispanic-Asian Variance Ratio 2000	0.273***	0.267***	0.268***	0.214***	0.212***	0.209***	0.413***	0.410***	0.402***
	(0.045)	(0.045)	(0.045)	(0.045)	(0.046)	(0.043)	(0.107)	(0.108)	(0.111)
Census Division Fixed Effects	X	X	X	X	X	X	X	X	X
Mean Hispanic-Asian Variance Ratio	7.81	7.81	7.81	6.94	6.94	6.94	11.96	11.96	11.96
N	1239	1239	1239	1025	1025	1025	214	214	214
adj. R-sq	0.247	0.252	0.252	0.163	0.166	0.165	0.392	0.395	0.391

Notes: Table 8 shows the IV 2SLS relationship between our instrument for increase in Hispanic student population and the Hispanic-Asian Variance Ratio in the 2011 school year. We show the reduced form, the OLS and IV 2SLS estimates for the full sample of school districts in our analysis (1,239 school districts). We also show a heterogeneity cut that splits our sample into school districts that have had a past court ordered desegregation (columns 7, 8 and 9) plan prior to the year 2000 and those that did not (columns 4, 5 and 6). We always include census division fixed effects and control for the 2000 share black at the district level and the district level Hispanic-Asian Variance Ratio in 2000. Standard errors are clustered at the MSA level and shown in parentheses.

Table 9. IV 2SLS on Black & Hispanic vs. White & Asian Variance Ratio

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
	Hispanic & Black vs. White & Asian Variance Ratio								
	Full Sample			No Court Order Desegregation Plan			Past Court Order Desegregation Plan		
	Reduced Form	*OLS*	*IV 2SLS*	*Reduced Form*	*OLS*	*IV 2SLS*	*Reduced Form*	*OLS*	*IV 2SLS*
Predicted Percent Increase Mexican	0.184***			0.315***			-0.227		
	(0.058)			(0.070)			(0.170)		
Percent Increase Hispanic Students		0.0209	0.179***		0.0328	0.299***		0.0318	-0.207
		(0.023)	(0.061)		(0.031)	(0.071)		(0.045)	(0.183)
Share Black 2000	-0.0102	-0.00996	-0.015	-0.0383**	-0.0365**	-0.0561***	0.00719	0.00665	-0.00558
	(0.016)	(0.015)	(0.012)	(0.015)	(0.014)	(0.018)	(0.023)	(0.022)	(0.023)
Black & Hispanic vs. White & Asian Variance Ratio 2000	0.695***	0.697***	0.687***	0.613***	0.615***	0.589***	0.799***	0.791***	0.806***
	(0.085)	(0.085)	(0.082)	(0.123)	(0.124)	(0.108)	(0.057)	(0.054)	(0.060)
Census Division Fixed Effects	X	X	X	X	X	X	X	X	X
Mean Black & Hispanic vs. White & Asian Variance Ratio	5.30	5.30	5.30	4.17	4.17	4.17	10.63	10.63	10.63
N	1252	1252	1252	1032	1032	1032	220	220	220
adj. R-sq	0.658	0.656	0.623	0.559	0.553	0.398	0.751	0.75	0.721

Notes: Table 9 shows the IV 2SLS relationship between our instrument for increase in Hispanic student population and the Black/Hispanic vs.Asian/White Variance Ratio in the 2011 school year. We show the reduced form, the OLS and IV 2SLS estimates for the full sample of school districts in our analysis (1,252 school districts). We also show a heterogeneity cut that splits our sample into school districts that have had a past court ordered desegregation (columns 7, 8 and 9) plan prior to the year 2000 and those that did not (columns 4, 5 and 6). We always include census division fixed effects and control for the 2000 share black at the district level and the district level Black/Hispanic vs.Asian/White Variance Ratio in 2000. Standard errors are clustered at the MSA level and shown in parentheses.

Table 10. White Flight

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
	Percent Change White Students 2000-2010								
	Full Sample			No Court Order Desegregation Plan			Past Court Order Desegregation Plan		
	Reduced Form	*OLS*	*IV 2SLS*	*Reduced Form*	*OLS*	*IV 2SLS*	*Reduced Form*	*OLS*	*IV 2SLS*
Predicted Percent Increase Mexican	-0.906***			-1.247***			0.05		
	(0.306)			(0.339)			(0.409)		
Percent Increase Hispanic Students		0.266	-0.871***		0.369*	-1.171***		-0.267***	0.0449
		(0.196)	(0.266)		(0.195)	(0.333)		(0.077)	(0.365)
Share Black 2000	-0.0790*	-0.0987**	-0.0406	-0.0842	-0.140**	0.00203	-0.0752	-0.0894*	-0.0727
	(0.043)	(0.049)	(0.051)	(0.055)	(0.064)	(0.094)	(0.059)	(0.051)	(0.051)
Multi-Group Theil 2000	-0.00246	0.00728	-0.0484	-0.0417	0.00728	-0.0839	0.0351	0.0521	0.035
	(0.061)	(0.069)	(0.085)	(0.111)	(0.120)	(0.134)	(0.073)	(0.072)	(0.071)
Census Division Fixed Effects	X	X	X	X	X	X	X	X	X
Mean Percent Change White Students	-5.03	-5.03	-5.03	-5.05	-5.05	-5.05	-4.94	-4.94	-4.94
N	1252	1252	1252	1032	1032	1032	220	220	220
adj. R-sq	0.064	0.072	0.045	0.075	0.089	0.076	0.012	0.046	0.046

Notes: The table shows the IV 2SLS relationship between our instrument for increase in Hispanic student population and the percent change in white students between 2000 and 2010. We show the reduced form, the OLS and IV 2SLS estimates for the full sample of school districts in our analysis (1,252 school districts). We also show a heterogeneity cut that splits our sample into school districts that have had a past court ordered desegregation (columns 7, 8 and 9) plan prior to the year 2000 and those that did not (columns 4, 5 and 6). We always include census division fixed effects and control for the 2000 share black at the district level and the district level 4-Group Theil Index in 2000. Standard errors are clustered at the MSA level and shown in parentheses.

References

Angelucci, M. 2004. "Aid and Migration: An Analysis of the Impact of Progresa on the Timing and Size of Labour Migration."

Basu, Sukanya, and Sarah Pearlman. 2017. "Violence and migration: evidence from Mexico's drug war." *IZA Journal of Development and Migration*, 7(1): 18.

Borusyak, Kirill, Peter Hull, and Xavier Jaravel. 2019. "Quasi-Experimental Shift-share Research Designs."

Boustan, Leah Platt. 2010. "Was Postwar Suburbanization "White Flight"? Evidence from the Black Migration*." *The Quarterly Journal of Economics*, 125(1): 417–443.

Caetano, Greg, and Vikram Maheshri. 2021. "Explaining Recent Trends in US School Segregation."

Card, David. 2001. "Immigrant Inflows, Native Outflows, and the Local Labor Market Impacts of Higher Immigration." *Journal of Labor Economics*, 19(1): 22–64.

Card, David, and Ethan G. Lewis. 2007. "The Diffusion of Mexican Immigrants During the 1990s: Explanations and Impacts." *Mexican Immigration to the United States*, 193–228. University of Chicago Press.

Card, David, and Jesse Rothstein. 2007. "Racial segregation and the black–white test score gap." *Journal of Public Economics*, 91(11): 2158–2184.

Cascio, Elizabeth U., and Ethan G. Lewis. 2012. "Cracks in the Melting Pot: Immigration, School Choice, and Segregation." *American Economic Journal: Economic Policy*, 4(3): 91–117.

Chalfin, Aaron. 2013. "What is the Contribution of Mexican Immigration to U.S. Crime Rates? Evidence from Rainfall Shocks in Mexico." *American Law and Economics Review*, 16(1): 220–268.

Cutler, David M., and Edward L. Glaeser. 1997. "Are Ghettos Good or Bad?*." *The Quarterly Journal of Economics*, 112(3): 827–872.

De Brey, C., T.D. Snyder, A. Zhang, and S.A. Dillow. 2021. "Digest of Education Statistics 2019." National Center for Education Statistics, Institute of Education Sciences, U.S. Department of Education.

Dell, Melissa. 2015. "Trafficking Networks and the Mexican Drug War." *American Economic Review*, 105(6): 1738–79.

Derenoncourt, E. 2022. "Can you move to opportunity? Evidence from the Great Migration." *American Economic Review*, 112(2): 369–408.

Ennis, S. R., Ríos-Vargas M., and N. A. Albert. 2011. "The Hispanic Population: 2010." U.S. Census Bureau 2010 Census Briefs.

Fernández-Kelly, Patricia, and Douglas S. Massey. 2007. "Borders for Whom? The Role of NAFTA in Mexico-U.S. Migration." *The ANNALS of the American Academy of Political and Social Science*, 610(1): 98–118.

Fouka, V, Mazumder S, and M. Tabellini. 2020. "Changing In-Group Boundaries: The Effect of Immigration on Race Relations in the US." Centre for Economic Policy Research Discussion Paper 14590, https://cepr.org/active/publications/discussion$_{p}apers/dp.php?dpno = 14590$.

Fryer, Roland G. 2011. "The Importance of Segregation, Discrimination, Peer Dynamics, and Identity in Explaining Trends in the Racial Achievement Gap." In . Vol. 1 of *Handbook of Social Economics*, , ed. Jess Benhabib, Alberto Bisin and Matthew O. Jackson, Chapter 21, 1165–1191. North-Holland.

Fuller, Bruce, Yoonjeon Kim, Claudia Galindo, Shruti Bathia, Margaret Bridges, Greg J. Duncan, and Isabel García Valdivia. 2019. "Worsening School Segregation for Latino Children?" *Educational Researcher*, 48(7): 407–420.

Gibson, C., and K. Jung. 2006. "Historical Census Statistics on the Foreign-Born Population of the United States: 1850 to 2000." U.S. Census Bureau Population Division Working Paper 81, https://www.census.gov/content/dam/Census/library/working-papers/2006/demo/POP-twps0081.pdf.

Guryan, Jonathan. 2004. "Desegregation and Black Dropout Rates." *American Economic Review*, 94(4): 919–943.

Hanushek, Eric A., John F. Kain, and Steven G. Rivkin. 2009. "New Evidence about Brown v. Board of Education: The Complex Effects of School Racial Composition on Achievement." *Journal of Labor Economics*, 27(3): 349–383.

Hunter, Lori M., Sheena Murray, and Fernando Riosmena. 2013. "Rainfall Patterns and U.S. Migration from Rural Mexico." *International Migration Review*, 47(4): 874–909.

Johnson, Rucker C. 2011. "Long-run Impacts of School Desegregation School Quality on Adult Attainments." National Bureau of Economic Research Working Paper 16664.

Monarrez, T. 2020. "School Attendance Boundaries and the Segregation of Schools in the US."

Munshi, Kaivan. 2003. "Networks in the Modern Economy: Mexican Migrants in the U. S. Labor Market*." *The Quarterly Journal of Economics*, 118(2): 549–599.

Newman, Benjamin J, Sono Shah, and Loren Collingwood. 2018. "Race, Place, and Building a Base: Latino Population Growth and the Nascent Trump Campaign for President." *Public Opinion Quarterly*, 82(1): 122–134.

Oliver, Azuara. 2009. "Does Poverty Alleviation Increase Migration? Evidence from Mexico." University Library of Munich, Germany MPRA Paper 17599.

Orozco-Aleman, S., and H. Gonzalez-Lozano. 2018. "Drug Violence and Migration Flows: Lessons from the Mexican Drug War." *Journal of Human Resources*, 53(3): 717–749.

Parker, Susan W., and Petra E. Todd. 2017. "Conditional Cash Transfers: The Case of Progresa/Oportunidades." *Journal of Economic Literature*, 55(3): 866–915.

Pugatch, T., and D. Yang. 2011. "The Impact of Mexican Immigration on US Labor Markets: Evidence From Migrant Flows Driven by Rainfall Shocks."

Rabinowitz, Kate, Armand Emamdjomeh, and Laura Meckler. 2019. "How the nation's growing racial diversity is changing our schools." *The Washington post.*

Reardon, Sean, Erika Weathers, Erin Fahle, Heewon Jang, and Demetra Kalogrides. 2019. "Is Separate Still Unequal? New Evidence on School Segregation and Racial Academic Achievement Gaps." Stanford Center for Education Policy Analysis Working Paper 19-06, https://cepa.stanford.edu/sites/default/files/wp19-06-v092019.pdf.

Reardon, Sean F., Elena Tej Grewal, Demetra Kalogrides, and Erica Greenberg. 2012. "Brown Fades: The End of Court-Ordered School Desegregation and the Resegregation of American Public Schools." *Journal of Policy Analysis and Management*, 31(4): 876–904.

Reber, Sarah J. 2010. "School Desegregation and Educational Attainment for Blacks." *Journal of Human Resources*, 45(4): 893–914.

Riosmena, Fernando, Raphael Nawrotzki, and Lori Hunter. 2018. "Climate Migration at the Height and End of the Great Mexican Emigration Era." *Popul Dev Rev*, 44(3): 455–488.

Stecklov, Guy, Paul Winters, Marco Stampini, and Benjamin Davis. 2005. "Do conditional cash transfers influence migration? A study using experimental data from the Mexican progresa program." *Demography*, 42(4): 769–790.

Survey, American Community. 2010, 2019. "Selected Characteristics of the Foreign-Born Population by Region of Birth: Latin-America." U.S. Census Bureau Table S0506, https://data.census.gov/cedsci/table?q=S05d=ACS

U.S. Census Bureau. 1992. "1990 Census of Population – General Population Characteristics, United States." https://www2.census.gov/library/publications/decennial/1990/cp-1/cp-1-1.pdf.

U.S. Census Bureau. 2020. "Annual Estimates of the Resident Population by Sex, Age, Race, and Hispanic Origin for the United States: April 1, 2010 to July 1, 2019." https://www2.census.gov/programs-surveys/popest/tables/2010-2019/national/asrh/nc-est2019-asr6h.xlsx.

Vespa, J., Medina L., and D. M. Armstrong. 2020. "Demographic Turning Points for the United States: Population Projections for 2020 to 2060." U.S. Census Bureau Population Estimates and Projections – Current Population Reports, https://www.census.gov/content/dam/Census/library/publications/2020/demo/p25-1144.pdf.

Villarreal, M. A, and M. Cid. 2010. "NAFTA and the Mexican Economy."