Is Social Mobility Spatial? Characteristics of Immigrant Metros and Second Generation Outcomes, 1940-70 and 1970-2000

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Abstract

Research on immigrant and second generation outcomes has often examined their locations, following ideas that geographic dispersion facilitates social mobility and that characteristics of the ethnic environment enable or constrain progress. I contend that second generation socioeconomic outcomes depend in part on the location choices and characteristics of a previous immigrant generation. Further, I suggest that this relationship reflects the changing geography of immigrants and labor markets, rather than geographically-unfolding assimilation. Using the 1940, 1970, and 2000 IPUMS files from the US Census I regress second and 1.5 generation wage and educational outcomes in 1970 and 2000 on metro-area characteristics of a previous generation (1940 and 1970, respectively). Current labor market and second generation characteristics are included as controls and to facilitate interpretation. Characteristics of a previous immigrant generation's location were more important for second generation outcomes in the 1940-1970 period, while current place characteristics become more significant in 2000. There is evidence of selection operating through the positive intergenerational effects of places where immigrants' educational levels were high a generation ago. Metro-level immigrant concentration and manufacturing employment also have generally positive effects although variations across generations and by nationality suggest their significance for social mobility is inadequately understood. The historic immigrant geographies of the US, and the ways in which metro labor market conditions intersect with immigrants' locational choices, both within and between generations, are thus a critical piece of the economic and spatial assimilation puzzle.

Introduction

A resurgence of interest in immigrant's residential choices has been precipitated by the post-1990s moves of immigrants to a broader array of US destinations, either as initial or secondary moves (Kandel and Parrado 2005, Singer 2004, Crowley et al 2006, Stamps and Bohon 2006, Fernandez, Howard, and Amastae 2007, Hall 2009, Lichter and Johnson 2009, Goodwin-White 2012). Many of the young children of these immigrants will come of age in locations their parents chose with regard to perceived opportunities and constraints. How will the changing locations of immigrants and their children affect intergenerational outcomes? While the geography of immigrants and their children has not usually been at the forefront of research on integration, a theoretical angle has been provided by spatial assimilation and locational attainment perspectives (Logan et al 1996; Alba, Logan and Stults, 2000) which stress how integration depends upon immigrants' settlement patterns and existing patterns of racial/ethnic residence. Relatedly, segmented assimilation perspectives have sometimes emphasized how ethnic concentrations resulting from discrimination can limit social mobility for non-white immigrant offspring (Portes and Zhou 1993, Portes and Rumbaut 2001).

These issues find a precedent with another American history of intergenerational spatial and social mobility. Vigdor's 2002 analysis of the children of the Great Migration connected parental characteristics to children's education and earnings outcomes, finding that parental characteristics were transmitted selectively through geographic location. This finding provided further evidence for how segregation limited social mobility through the intergenerational settlement patterns of African Americans. In this paper, I follow Vigdor in asking questions about whether and how immigrants' locations affect second generation education and wage outcomes 30 years later. Borjas' analysis of the importance of average immigrant generation wages for second generation outcomes (1992, 1993) provides related theoretical and methodological insights. Have immigrants bequeathed advantageous places to their children through location choice? Conversely, have immigrants' concentrated settlement patterns limited second generation adult outcomes? How does this change between 1970 and 2000, as immigrant geographies change dramatically alongside the national origins of the young adult second generation?

Using the Integrated PUMS and corrected MSA equivalent boundaries (Ruggles et al 2010), I construct metro-level pseudo-cohorts of prime working-age immigrants in 1940 and 1970 and a second/1.5 generation young adult cohort born and resident in the previous generation's MSA in 1970 and 2000. Controlling for current metro characteristics, gender, age, and educational background, I attempt to correlate the average immigrant characteristics and labor market conditions of a previous generation with the educational and wage outcomes of the same metro area's young adult second generation three decades later. Thus, I follow in part the approaches of Vigdor and Borjas mentioned above, as well as others using IPUMS cohorts for intergenerational research. I run models for those of Mexican parentage separately, due to emphases on this group as an outlier experiencing persistently negative selection (Borjas 1992, 1995; Portes and Rumbaut 2001), and their significance in the literature on internal migration, dispersion and spatial assimilation (South, Crowder, and Chavez 2005, Hall 2009, Lichter and Johnson 2009). They are also the largest second generation group in 2000, as well as one that is already large in 1970.

Like much of the intergenerational immigrant literature, this study considers social mobility across cohorts rather than between specific parent-child pairs, and takes wages rather than occupations as a dependent variable (see, for example, Borjas 2006). Given the historical importance of manufacturing jobs for intergenerational mobility, and the punitive conditions of many immigrant occupations, it would be interesting to consider how occupational profiles shift across immigrant generations. These have not been extensively researched, especially with regard to geographic variations. However, I chose to consider wages and years of education instead, due to the extreme occupational segmenting and within-occupation heterogeneity of wages, as well as the useful tractability of a well-understood continuous variable.

This analysis adds to work on immigrant economic assimilation through situating the second generation within an internally-differentiated US labor market and immigrant geographies of historical construction. It also allows for some disaggregation of place characteristics and immigrant generation characteristics in their effects upon second generation outcomes. Although not longitudinal, the intergenerational continuity of place and individual characteristics provides a cross-sectional opportunity to examine these questions over a longue durée of America's immigration history. The return to the covariates

allows for the consideration of spatial aspects of social mobility. Are economic differences being transmitted in part through the selectivity of a previous generation's locations? Further, this study responds to Savage's still-true assertion that geographic mobility has been critically neglected in studies of social mobility. Although his study focused on the importance of geographic mobility for intragenerational occupational upgrading in the UK, his conclusion that regional moves were most important for those in the lowest occupational categories could plausibly ring true for US immigrants as well (Savage 1988). In linking spatial mobility and social mobility across time and scale I also herald calls in the mobilities literature to connect internal and international migration, as well as to consider the ways spatial mobility is connected to life courses within as well as across generations (King 2012).

Background

Locations and movement between them have often framed assessments of immigrant and second generation outcomes, across multiple scales. Borjas (1992) extended Sjaastad's 1962 work on migration utility to immigrants, suggesting they select destination countries with regard to the utility of their ethnic capital and prospects for intergenerational mobility. This would involve complex consideration of potential economic opportunities and constraints, and estimating assimilation trajectories of a subsequent generation (Borjas 1992, 1993). While the country-level decision figures prominently in research explaining differences in group outcomes by differences in source cohort skills and labor market premiums (Borjas 1992, 1993; Feliciano 2005), the significance of location choice for immigrants and their children does not end with the international move. The extent to which location and location choice *within* the United States matter for various racial and ethnic groups has traditionally been analyzed at the neighborhood level, and is rooted in discussions of residential segregation and spatial assimilation theory. This literature evaluates the premise that immigrants move into better quality neighborhoods with increasing time in the US and over generations, as well as with increasing human capital characteristics such as language skills, and educational background (Logan et al 1996; Alba, Logan and Stults, 2000).

Spatial assimilation theory's 'locational attainment' is most often assessed as residence in increasingly suburban neighbourhoods, marked by greater concentrations of US-born non-Hispanic whites and lower concentrations of immigrants and their

descendants, co-ethnics, or other non-white ethnic minorities (Logan et al 1999; Rosenbaum and Friedman 2001; Alba, Logan and Stults, 2000). However, Ellis and Goodwin-White (2006) pointed out that a similar logic has guided many studies theorizing larger-scale dispersion across metro areas or states as immigrant progress, or a lack of dispersion as problematic. Their own analysis suggested that ethnic networks are likely to remain important as the 1.5 generation, especially those with university degrees, appear even likelier than their immigrant parents to remain in concentrated immigrant states. South, Crowder, and Chavez also extended spatial assimilation arguments beyond the neighbourhood in suggesting "metro areas with large Hispanic populations are likely to contain more Latino neighborhoods that could serve as potential destinations…" (2005: 584). Although spatial assimilation framed dispersion at a very local scale initially, scholars of immigrant integration have considered immigrant concentrations to matter across scales from neighborhoods to cities to regions.

Concentrating on how discrimination and declining manufacturing jobs might blunt upward mobility for the non-white post-1965 second generation, segmented assimilation's focus on the 'different Americas' one can assimilate into also included the potential disadvantages of concentrated immigrant neighborhoods or regions (Portes and Zhou 1993, Portes and Rumbaut 2001). In noting the considerable constraints that face immigrants and their offspring, segmented assimilation remains a staunch corrective to locational choice perspectives. Research on the immigrant 'ethnic environment' similarly connects research on place effects for all ethnic minorities (Wilson, 1987, Alba, Logan and Stults 2000) and discussions of intergenerational adaptation (Alba, Logan, and Stults 2000, Iceland and Scopilitti 2008, Levental and Brooks-Gunn 2000) across multiple scales. In a study that suggests that second generation behavior depends upon school environment and selective parental responses, Greenman expresses this particularly clearly, arguing that "patterns of assimilation reflect, at least in part, immigrant families' deliberate adaptation to the surrounding context" (2011:62). Urban (2009) connects the poverty or affluence of childhood neighbourhoods in Stockholm with economic outcomes of the adult second generation, although the results are mixed. Similarly, Borjas' earlier work (1992, 1993) argued that 'persons who grow up in high-quality ethnic environments will, on average, be exposed to social, cultural, and economic factors that increase their productivity when they grow up'.

In examining cross-sectional pseudo-cohorts from IPUMS and longitudinal NLSY data, he finds that second generation earnings depend on 'ethnic capital', measured in this case as the average earnings of the immigrant generation. Thus, scholars of immigrant and second generation outcomes have been attentive to how immigrant settlement both responds to and yields relative opportunities and disadvantages.

As much as childhood neighborhoods may matter, the realization that the characteristics of the metro-level labor markets the second generation enters as adults critically shape their outcomes has tipped much research to the metro scale. Like Vigdor's descendants of the Great Migration, the children of immigrants mature in metropolitan labor markets they inherited rather than chose. The characteristics of these locations will shape their economic outcomes, as will those locations they later encounter through their own migration choices. Research on the adult second generation has sometimes voiced concerns that concentrated immigrant locations could constrain second generation progress (Clark 2001, Zhou 2001). In another historical take, Waldinger suggested some benefits of regional concentration for an earlier second generation:

" … the distinctive geographic and industrial social structures established by the immigrant generation turned out to be persistent. Therein lay a significant source of advantage, as the Northeast was a source of high wage employment, rewarding workers of all sorts and all backgrounds more handsomely than their counterparts in other regions" (2007: 33).

Waldinger's central point is that neither spatial assimilation's emphasis on dispersion nor segmented assimilation's emphasis on the importance of manufacturing employment explain why the Italian and Polish 'Catholic urban offspring of stigmatized peasant migrants" fared so differently (2007: 24). He finds deviations that contradict both theories: while the Polish second generation were disadvantaged by ethnic concentration and manufacturing employment, the Italian second generation seems to have prospered without manufacturing jobs or geographic diffusion (Waldinger 2007). The shifting regional agglomerations of immigrants, jobs, and labor market characteristics have similarly occupied center stage in several studies of a more contemporary foreign stock population (Wright and Ellis 1997, Ellis and Wright 1999, Ellis 2001, Waldinger 2001).

New immigrant destinations from the late-1990s provided opportunities to test ideas that dispersion from more traditional immigrant settlements signals integration, as well as to

ask broader questions about what new destinations would mean for the foreign-stock population. In a study focused on what Latino growth and dispersion meant for new destinations, Lichter and Johnson (2009) uncovered the importance of positively-selected counter-streams *away* from new destinations. This suggested that dispersion might not be connected with integration, and also that emerging migration and residence patterns could potentially detach immigrant generations. Increasingly, scholars looked at selection in considering what new destinations might signify. Although some pointed to positive employment outcomes, including the opportunities provided by new manufacturing jobs in non-traditional destinations (Kandel and Parrado 2005, Crowley et al 2006, Donato et al 2008), the general consensus was that selection to new destinations was fairly negative (Donato et al 2008, Fernandez, Howard and Amastae 2007, Hall 2009, Lichter and Johnson 2009, Goodwin-White 2012).[1] Thus, the new destinations research revived issues of how locations tell us something about selection for both immigrant and second generation outcomes, as well as investigating changing patterns of immigrant settlement just as a new second generation comes of working age.

The current study, like those above, links the issues of selection and locations, with attention to the array of possible place characteristics immigrant offspring may inherit that affect their adult outcomes. An important focus is how immigrant characteristics, both individually and in the aggregate, are transmitted intergenerationally through locations. Returns to human and ethnic capital and related labor market opportunities are spatially variant, and we commonly theorise that individuals respond to these differences through internal migration. Settlement patterns may reflect not only differential opportunities but also reveal historical shifts in spatially-varying local labor market conditions. Do the location choices of immigrants affect the wages and educational outcomes of the next generation? Has the relationship between spatial and social mobility changed over time? The results presented here shed some light on the processes through which immigrants' locational choices produce the spaces within which their children will experience economic outcomes. They are a preliminary foray, however, and suggest that further exploration of these issues is needed.

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[1] Although Stamps and Bohon (2006) find some evidence of positive selection in terms of education.

Data and Analytical Strategy: Samples, Covariates, Models

Immigrants and locations: 1940, 1970, 2000

The data throughout this paper come from the integrated Public Use Microdata Samples (IPUMS-USA) for 1940, 1970, and 2000, as three years comprising two cohorts with comparable available data for immigrant and second generation populations. The IPUMS are commonly chosen for research on the progress of the foreign-stock population in the US as they have sizeable samples of immigrants across the US. Individual and household-level data are mostly comparable across decades from 1850-2000. Most critically, the IPUMS contains parental birthplace variables until 1970, as well as information on immigrants' year of arrival, useful for considering the second/1.5 generation population as specified below.

Table 1 displays the 20 metropolitan areas with the greatest proportions of 1) foreign-born and 2) Mexican-born populations for each year. The westerly shift of the immigrant population and the east coast prevalence of non-Mexican immigrants are clear, as well as the increasing intensity of immigrant concentration in 2000. Since the locations of immigrants are produced through secondary migration flows as well as an initial destination choice, Table 2 displays the top 10 inter-county internal migration flows of 1) all immigrants and 2) Mexican immigrants in the five years preceding each census. Although the flows here reflect moves that crossed a county boundary, many of the top flows occur *within* a consolidated metropolitan area and thus the top moves are within these metro areas (especially in 1940, when the array was smaller). Here, the bracketed figures indicate what proportion of all moves made by that group in that period were constituted by the particular flow. Again, an earlier East Coast dominance is obvious, although most Mexican flows end in the western US even in 1940. By 2000, most Mexican flows are focused on leaving the Los Angeles metro area or circulation around the LA area and its surrounding counties.[2]

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[2] In a further specification of the models in the next section of this paper, I restricted the averaged immigrant generation characteristics to only those who had made an inter-metro move within the past 5 years, restricting location choice to a recent internal migration. This intensified the relationships discussed below in the presented models, but dramatically reduced the array of 1940s metros. At any rate, US residence in the immigrant generation is evidence of at least one location choice.

Second generation samples

Second generation individuals and current relevant individual and place characteristics are taken from 1970 and 2000. In the 1970 samples it is possible to precisely identify second generation individuals through parental birthplace variables. In subsequent IPUMS samples the parental birthplace variable is no longer available. Thus, in 2000, I identify the 1.5 generation instead, following previous studies in which the foreign-born population who arrived in the US before they were ten years of age is studied as a proxy for the second generation (Portes and Rumbaut 2001, Ellis and Goodwin-White 2006). Many studies have identified a larger 1.5 generation that arrived in the US anytime during childhood (Rumbaut 2004), but I have chosen a more restricted group here to focus on those more comparable to 1970's 'true' second generation. Those who arrived in the US before the age of ten are more likely to have acquired significant experience and education in the US before entering the labor force as adults. The 1.5 generation are identified using the place of birth, age, and year of immigration variables. Since the dependent variables of interest are wages and completed education, both 'second' generation samples are further restricted to those 22-48 year-olds currently in the labor force and not in full-time education, with positive income and hours worked in the previous year. In addition, they were all resident in metro areas with working adult immigrants in 1940 (for the 1970 second generation sample) and in 1970 (for the 2000 1.5 generation sample).

Additional model specifications restrict the samples to those of the second generation born in the state where they currently reside (in 1970), those born of Mexican parents (in 1970), or those of the 1.5 generation born in Mexico (in 2000). The additional 1970s restriction on state nativity is used to test how robust the model results are, under the assumption that those still in the state of their birth are more likely influenced by the place characteristics of the locations they inherited directly from their parents' generation. The additional specifications for Mexican-born parents in 1970 and Mexican birth in 2000 reflect not only that this is the largest single country of origin for working-age immigrants in the IPUMS, but also that previous studies have focused on this group's singularly poor outcomes. It is also an important specification in that the 1.5 generation, no matter how comparable to the second generation as adults, are still immigrants. The difference would be most salient for those who are undocumented, a far more common condition amongst those

of Mexican parentage, and one that affects interpretation of the results in the latter period.

In each case, a previous immigrant generation's averaged group and place characteristics were also collected from an earlier time period (1940, for the 1970 second generation cohort; and 1970 for the 2000 1.5 cohort). These are compiled for working-age immigrants with positive hours and earnings, and appended by metro area to the later second/1.5 generation samples. The pooled samples thus approximate a cohort that could have matured into a metro-level labor force following their immigrant parent generation's residence in it thirty years previously -- an approximation that is optimized given data limitations by the further restrictions on state nativity. Again, this follows in part the methodology established by Vigdor (2001) for assessing similar questions for African Americans in the US, as well as work by Greenman (2011) and Borjas (1995) that used multiple IPUMS samples for considerations of second generation outcomes. The 30-year cohort periods are also designated by the fact that each time point has critical data on nativity, parental birthplace or year of arrival, and internal migration available at a metro level. This approach does not examine individual incorporation trajectories of pairs of immigrants and their own children. Rather, the models that follow assess how the matching of immigrant and labor force characteristics to metro areas relates to the average outcomes of a second generation 30 years later.

Models

In each case, OLS models have the effect of regressing metro-level second generation wage and educational outcomes (in 1970 and 2000) on characteristics of same-metro immigrants and immigrant labor markets 30 years previously. These earlier (1940 and 1970) characteristics include the average level of educational attainment of parent generation immigrants, the proportion of the metro that was foreign-born, and the proportion of employment that was in manufacturing. Current (1970 and 2000) second generation characteristics are individual attributes of age, gender, and completed education,[3] and are mostly included as controls. Current place characteristics include total labor force size,

[3] This covariate is absent from models predicting second/1.5 generation educational outcomes for reasons of collinearity and only used in the wage models. It is a mostly continuous measure of years of completed education taken from the IPUMS *educrec* variable.

proportion of the population that is foreign-born, and proportion of employment in manufacturing. Using a simple variant of the intergenerational models proposed by Vigdor (2001), following Borjas (1995), then, I first estimate the following OLS:

$$y_{ict2} = \alpha + \beta_1 X_{ct2} + \beta_2 X_{ct} + \beta_3 \theta_{ct} + \beta_3 X_{ct} \theta_{ct} \ldots + \varepsilon_{ict},$$

regressing wage and educational outcomes of the second generation resident in city c (y_{ict2}) on current individual and labor market characteristics, and also on characteristics of the city's previous immigrant generation including immigrant share. The average education level of immigrants in the earlier time period (the immigrant 'parent' generation) is included as a measure of intergenerational selection effects[4], following Vigdor. The following metro-level variables are considered at both time periods: immigrant proportion of the population, labor force size, and proportion of employment in manufacturing. As mentioned above, manufacturing employment has often been considered as a critical determinant for immigrant integration, especially in that it once provided suitably-compensated employment for less-educated immigrants to promote the education of their offspring. It has also featured prominently in cross-sectional research due to its presumed positive outcomes and significant decline since the 1970s.[5] In addition to serving as control variables for the current second generation, these place covariates characterize the working immigrant context encountered by a previous generation in the current second generation's city of residence. 'Current' second/1.5 generation individual characteristics in 1970 and 2000 include age, gender, and completed educational level as controls. Robust standard errors are clustered to account for the structure of the data and models.

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[4] In previous iterations, I also included the metro-level ratio of average immigrant wages to average US-born wages as an independent variable. It was slightly positive in terms of predicting second generation outcomes 30 years later, but only significant if replacing the stronger covariate of average educational level of the immigrant generation (and so not reproduced here).

[5] The service jobs that are more likely held by immigrants and their descendants in 2000 were not as prominent in 1940 and 1970, and have seldom been theorized as key to integration, especially intergenerationally.

Results

Tables 3 and 4 show the results of the models regressing 1970 second generation and 2000 1.5 generation economic outcomes on the metro-level characteristics of a previous immigrant generation. The three covariates of concern are the immigrant generation's completed education, the proportion of employment in manufacturing, and the foreign-born proportion of the population. I will review both the immigrant-generation and the second generation characteristics in more detail to further assess the spatial aspects of intergenerational mobility, concentrating on evidence of selection and how it evolves. Mindful of research documenting the specifically-disadvantaged conditions of the Mexican second generation, I will also draw some conclusions about how this group differs from the overall second/1.5 generation.

Place characteristics of the immigrant generation: education, manufacturing jobs, immigrant concentration

As expected, the current second generation's wage and educational outcomes are positively and significantly related to the educational levels of immigrants in the same city a generation ago, with the effect increasing between cohorts. By 2000, graduation rates increase about 10% for each metro-averaged year of education in the previous immigrant generation. This is the strongest evidence of selection working through parent generation location choice. Cities with more educated immigrant populations were places where the second generation experienced better outcomes 30 years later (and vice versa). The Mexican second generation experiences stronger selection for wages (this is very strong indeed in 1970) but less positive selection for university completion, compared with the second generation overall. For this group, parent generation location selection increased earnings first and foremost.

Manufacturing employment had similar positive intergenerational effects, although not for second generation Mexicans in 1970.[6] It is possible that Mexicans found it harder to obtain good manufacturing jobs in 1940, with resulting poorer outcomes for their offspring. Table 1 also points to the importance of Waldinger's (2007) finding that good manufacturing jobs were concentrated in the Northeast, a region where Mexican immigrants had no major urban concentrations. By the second time period, parent generation manufacturing jobs have

[6] 1940 metro-level manufacturing jobs were associated with increased second generation Mexican university completion in 1970 (although this number would have been quite small).

positive consequences for all of the 1.5 generation, although they are associated with lower rates of high school graduation for 1.5 Mexicans in 2000.

Finally, the immigrant concentration covariates are theoretically interesting, given their importance to the spatial assimilation debate. Metros with high proportions of immigrants historically have more educated current second generation populations decades later. The effect is strong for all groups but more so for second generation Mexicans in 1970 and less so for 1.5 Mexicans in 2000. This resonates with Vigdor's similar finding for the 1970s children of northward-migrating African Americans (2002). Concentration appears positively related to intergenerational mobility in terms of educational outcomes, especially for non-whites in the 1940-70 period. Immigrant generation concentration also increased the wages of 1970's second generation Mexicans, as well as second generation individuals living in their state of birth.[7] However, the 2000 1.5 generation had lower wages in metros that had been 1970's immigrant concentrations, although not significantly for those of Mexican parentage.

Thus, the place characteristics of a previous immigrant generation are generally positively related to the wages and educational outcomes of a second generation 30 years later, even when controlling for current individual and place characteristics. The only exceptions are that manufacturing jobs are not always positive for second generation Mexicans, and that 1970's concentrations are associated with lower wages for the non-Mexican 1.5 generation in 2000. At first glance, this suggests that segmented assimilation's suggestion that manufacturing jobs benefitted immigrants in this period in terms of aiding their offspring was only true for some second generation groups. It also suggests that historic immigrant concentrations, while benefitting 1970's second generation, had some detrimental effects for a subsequent generation in 2000. The curious relationship is not the expected positive selection variable of average metro-level immigrant generation education throughout, but the changed direction of the relationship between immigrant concentration in one generation and a subsequent generation's outcomes. Looking to the place

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[7] It is not surprising that this intensifies the beneficial effect as the importance of immigrant concentration is experienced more directly and in place. The state native restriction also increases the probability that the metro-level generations relate to each other and thus that the second generation directly inherited the location choice of an immigrant parent.

characteristics experienced directly by the current second/1.5 generation provides some further clues.

Current covariates: gender, education, immigrant concentration, manufacturing jobs

Although current characteristics are intended as control variables they help to elucidate the continuing significance of the contours of immigrant and second generation labor markets. Individual covariates conform to expected relationships, with wages increasing with age and education. Women's wage disadvantages diminish between cohorts, and are lessened for those of Mexican parentage. Each additional year of education was related to a 10-11% increase in wages in 1970, although by 2000 one's own educational attainment does not translate as effectively into higher wages amongst those who are Mexican-born. This echoes some of the findings on manufacturing employment's effects in the previous section, and may point to the ethnic segmenting of second generation labor markets from the 1970s, such that those of Mexican-origin benefit less than others.

Cities with higher levels of manufacturing employment have less educated second generations in 1970, especially in terms of university completion, and especially for second generation Mexicans. Manufacturing employment may have incentivized earlier school leaving in this period, especially since there is evidence it is associated with higher wages. By 2000, cities with manufacturing jobs have higher wages for everyone except 1.5 generation Mexicans. Whereas manufacturing employment may have provided a viable alternative to higher education for the second generation in 1970, it does not seem to do so for 1.5 generation Mexicans in 2000. This could be because the 1.5 generation, however young at arrival, still face the limitations of immigrant status (especially if undocumented). However, it can also indicate, as suggested for parent generation manufacturing jobs in the earlier cohort, a nationality-based discrepancy in who benefits from these jobs. This may be evidence of a stratified relationship between manufacturing employment and educational outcomes by nationality for members of the 1.5 generation, one that has emerged since 1970.

Most importantly, it appears that the significance of *current* immigrant concentration has changed. While 1970 immigrant concentrations had significantly lower second

generation wages overall, 2000 immigrant concentrations yielded significantly lower wages for the Mexican 1.5 generation but significantly higher wages for others. Given the dominance of the Mexican 1.5 generation group, competition from co-ethnics may increase discrimination or diminish wages, even as their presence benefits other groups. Since other outcomes also differ significantly for those of Mexican parentage or birth, this seems more evidence of increasingly ethnically-stratified labor markets. Although the new immigrant destinations in non-traditional areas are not yet visible among top concentrations, they begin to show up as Mexican destinations in Table 2 and certainly register higher in concentration than before. It will be interesting to see how they affect second generation wages in future.

Discussion

The model results have demonstrated the significance of historical immigrant geographies on educational and wage outcomes in a subsequent generation, controlling for current labor market characteristics and city size. It appears that these effects were stronger in the 1940-1970 period,[8] especially in terms of wages and especially for those of Mexican descent. 1940 and 1970 immigrant concentrations were associated with improved second generation educational outcomes in 1970 and 2000, respectively, and with increased 1970 wages. However, they were associated with reduced wages in 2000. Parental location was clearly positively selected for social mobility in the earlier time period, as also evidenced by the positive effects of metro-averaged immigrant generation education. It was far less clearly so in the second time period. Current place characteristics become relatively more significant for the second generation by 2000. So the immigrant generation bequeathed positive outcomes for the second generation with their location choices in the earlier cohort, but not in the more recent one, in terms of choosing immigrant-concentrated metros, and geographic selection for parental characteristics (while remaining positive) also declined across cohorts. It is critical to remember, however, that positive selection also means that cities with less educated immigrant populations in 1940 and 1970 also had less educated and lower-waged second generation populations 30 years later. The significance of location selection over time means that the advantages or disadvantages of residence for social mobility are persistent.

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[8] With the exception of manufacturing employment, which was only positive for second-generation Mexicans in the second cohort.

The assimilation angle would be confusing: did immigrant concentrations go from being positive things to negative ones for social mobility? The evidence here would suggest the importance of concentrated immigrant settlement in the earlier period, but point to the importance of dispersion (for wages, if not for education) in the later period. Did the parents choosing 1940 immigrant metros better educational and wage outcomes for the next generation in 1970, but parents choosing immigrant metros in 1970 make bad choices for future 1.5 generation wages? Were those immigrants in 1970's concentrations simply more negatively selected than previously, and if so, why? One thing that becomes apparent is that 1940 immigrant concentrations reflected the clusters of northeastern immigrant cities with manufacturing employment mentioned by other scholars as critical, whereas these are replaced by newer immigrant cities further south and west by 1970. Is the story perhaps simply that by 1970 metros with high concentrations of immigrants are different places altogether – ones that drive down second generation wages? Did spatial strategies for social mobility work better once, in the same earlier period when they seemed to work well for African Americans? Or are there simply different spatial strategies over time and space, such that immigrant concentrations provide ethnic capital to a point but promote discrimination thereafter?

As we see in Table 1, 1940 immigrant concentrations are not those of 1970, and 1970 immigrant concentrations are not those of 2000.[9] Examining the coefficients across generations and cohorts reveals that 1970s immigrant concentrations – whether directly in the 1970 cohort or indirectly in the 2000 cohort— were simply not good places for second generation wages. 1970 metro-level immigrant concentration was negatively associated with both current second generation wages in 1970 and future second generation wages in 2000. In 2000, metro-level immigrant concentration is negative for the Mexican 1.5 generation but quite surprisingly positive for non-Mexicans. Given the increasing relative significance of current immigrant concentration in the second cohort, the latent variable in these models may well be the internal migration patterns and selection of the second generation themselves as they respond to the labor markets they inherit. And of course not all locations are chosen, even amongst adults. In related research (2015), I find evidence that the selection

[9] The fact that concentration is a continuous variable (matching most specifications in the existing literature) further complicates assessment of change as the distribution would be different in each time period.

of second generation internal migration itself becomes more important in this later period, and that immigrant concentrations can be positively selected for those moving into them, yet negatively selected for those remaining in them.

The significance of Vigdor's models was that endogeneity was tied up in parental location selection, such that segregated metros' positive effects in 1970 and negative effects in 1990 were attributable in part to skilled migrants' avoidance of segregated metros over time. To varying degrees, others have also suggested that previous immigrant settlement patterns are relevant for newer immigrants and the second generation (Borjas 1992, 1993, 1995, Waldinger 2001, Perlmann 2000, Freeman 2011). The consistently positive coefficients on average city-level education of a previous immigrant generation attest to this spatial intergenerational selection across two time periods. The shifting significance of covariates across generations and over time suggests that the relationship between spatial and social mobility reflects changing immigrant and economic geographies across decades. For his African American sample, Vigdor similarly concluded that "…the relationship between ethnic capital and segregation changed over time…". Although segmented assimilation theorists have suggested that the post-1965 second generation may not experience the same social mobility as previous second generations, the way in which the effects of immigrant geographies on social mobility might evolve over time has received little attention.

There are additional related issues raised by considering how the significance of place for immigrant social mobility changed over time. Although 1940s immigrant generation manufacturing jobs had failed to benefit the Mexican second generation, this group fared better in cities with 1970 manufacturing jobs. By 2000, manufacturing jobs only boosted wages, and only slightly, for the non-Mexican 1.5 generation. In part, the importance of manufacturing jobs for strong wages and social mobility had changed. In part, of course, so had the array of cities where manufacturing jobs were located, and the continuous variable of immigrant concentration and its inter-metropolitan variation. There was a broader array of immigrant-concentrated metros over time, and immigrant concentrations intensified at the metro-level. The significance of declining manufacturing jobs, shifts of immigrants and others away from this industry, and their changing implications for social mobility are also important. Perhaps most importantly, the intersections of changing patterns of residence and

jobs for both groups are inadequately understood. Although much work has been done on the disadvantageous location of African Americans in parts of the US that were declining economically, these shifts are less understood for the immigrant stock of the US, in part because the emphasis remains strongly on changing immigrant concentrations and neighborhoods in and of themselves as framed in spatial assimilation arguments. However, historical immigrant settlement patterns have recently received attention in intriguing findings of their relationship for contemporary geographic differences in economic development (Rodriguez-Pose and von Berlepsch 2014).

I do not answer explicitly to the significance of changing US economic geographies for the fortunes of the foreign stock population in the US over the course of the 20th century in this paper. The data and models included here are cross-sectional, minimally-specified with regard to detailed place and individual characteristics, and only intergenerational for aggregated cohorts. That said, the analysis presented raises several key questions. Why does the relationship between characteristics of parental location (especially in terms of immigrant concentration) and second generation economic outcomes change? What is different about immigrant concentrations over time? Again, this is a promising question for ongoing research. But for the moment, analyzing changes in second generation outcomes against the backdrop of generational changes in metropolitan-level immigrant concentrations and pooled characteristics shifts analysis of locations away from dispersion measures and toward ideas of socioeconomic contexts that evolve alongside immigrant settlement. All of these findings point to the necessity of more detailed understanding of how and why places mattered for individual and group outcomes over time than we currently have, and than is offered by focusing simply on varying concentrations of immigrants. In large part, this is because shifting historical geographies of the US mean that immigrant concentrations are neither nominally nor substantively the same from one generation to another – and this relationship itself is dynamically undergirded by selection exercised through immigrant settlement and internal migration patterns.

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Table 1–

Top 20 foreign-born and Mexican-born metros in the US: 1940, 1970, 2000

	Foreign-born (and % of metro that is foreign-born)						Mexican-born (and % of metro that is Mexican-born)					
	1940	**%**	**1970**	**%**	**2000**	**%**	**1940**	**%**	**1970**	**%**	**2000**	**%**
1	New York	35	Miami	25	Miami	52	El Paso	21	El Paso	13	Laredo	29
2	El Paso	24	El Paso	17	Jersey City	39	San Antonio	8	San Antonio	4	McAllen	29
3	Boston	22	New York	15	Los Angeles	37	Phoenix	4	Fresno	4	El Paso	26
4	Providence	21	San Francisco	15	San Jose	35	Galveston	3	Salinas	3	Brownsville	24
5	Worcester	21	Honolulu	12	New York	34	Corpus Christi	3	Ventura	3	Yuma	22
6	Bridgeport	21	Salinas	12	San Francisco	33	Fresno	2	Corpus Christi	3	Salinas	20
7	Hartford	21	Los Angeles	12	Laredo	31	Los Angeles	2	Los Angeles	3	Visalia	19
8	Manchester	20	Hartford	12	Orange County	31	San Diego	2	Santa Barbara	3	Las Cruces	18
9	Duluth	20	Boston	11	McAllen	30	Stockton	2	Stockton	2	Merced	17
10	San Francisco	20	Providence	10	Salinas	30	Austin	2	Bakersfield	2	Los Angeles	16
11	Springfield	20	San Jose	9	El Paso	29	San Jose	2	Riverside	2	Yakima	15
12	Cleveland	19	New Haven	9	Bergen	26	Topeka	1	San Diego	2	Fresno	15
13	Detroit	19	Santa Barbara	9	Brownsville	26	Houston	1	San Jose	1	Santa Barbara	14
14	Chicago	18	Worcester	9	Ft. Lauderdale	26	Sacramento	1	Sacramento	1	Orange County	14
15	New Haven	18	Springfield	9	Yuma	25	Amarillo	1	Phoenix	1	Santa Cruz	13
16	Rochester	18	Chicago	8	Oakland	25	Pueblo	1	San Francisco	1	Ventura	13
17	Stockton	17	Fresno	8	Merced	25	San Francisco	1	Austin	1	Bakersfield	13
18	Seattle	17	Trenton	8	Visalia	23	Dallas	1	Chicago	1	Riverside	12
19	Rochester	16	San Diego	8	San Diego	23	Waco	.5	Dallas	1	Modesto	12
20	Trenton	16	Ventura	8	Fresno	22	Cedar Rapids	.5	Davenport	.5	San Diego	9

Table 2–
Top 10 five-year foreign-born and Mexican-born internal migration flows in the US: 1940, 1970, 2000[10]
(% represents % of all flows by that group in the preceding 5-year period)

	Foreign-born						Mexican-born					
	1940	**%**	**1970**	**%**	**2000**	**%**	**1940**	**%**	**1970**	**%**	**2000**	**%**
1	NYC-NYC	20	NY-MIA	3	LA-LA	9	ElP-LA	15	TX-LA	13	LA-RIV	2
2	BOS-BOS	4	NY-NYC	3	NYC-NYC	8	SAnt-LA	4	TX-CHI	9	LA-LV	2
3	SF-SF	3	NY-LA	2	DAL-DAL	3	NYC-LA	4	PA-ElP	5	LA-ATL	1
4	DET-DET	3	CA-NYC	2	DC-DC	3	LA-SJ	4	AZ-LA	4	LA-OC	1
5	PHI-PHI	2	NY-FtL	1	PHX-PHX	2	CAN-YTN	4	TX-SD	4	LA-CHI	1
6	CHI-CHI	2	NJ-NYC	1	SF-SJ	2	SF-SF	4	CA-CHI	3	RIV-LA	1
7	NYC-LA	2	NJ-MIA	1	BOS-BOS	1	SAnt-ElP	3	TX-RIV	2	RIV-OC	1
8	CHI-LA	2	TX-LA	1	SF-OAK	1	SF-LA	3	TX-FRES	2	LA-PHX	1
9	NYC-MIA	1	FL-NYC	1	SF-SF	1	DC-NYC	3	NM-LA	2	LA-DEN	1
10	SF-LA	1	PA-NYC	1	LA-RIV	1	RIV-LA	3	PA-LA	1	SYR-NYC	1

NYC= New York, NJ=New Jersey, SF= San Francisco, LA= Los Angeles, BOS=Boston, DET=Detroit, PHI=Philadelphia, CHI= Chicago, MIA=Miami, ElP=El Paso, SAnt= San Antonio, SJ= San Jose, DC= Washington DC, RIV=Riverside, FtL=Ft.Lauderdale, FRES=Fresno, PHX=Phoenix, CAN=Canton, YTN=Youngstown, DAL= Dallas, OAK=Oakland, SD= San Diego, ATL= Atlanta, DEN=Denver, SYR=Syracuse, OC=Orange County. Others in 1970 are official state abbreviations (see footnote 10).

[10] These tables report the top flows among those who made a move at a least an inter-county level. Thus the prevalence of moves that remained in the same large metropolitan area.1970 data only give a previous place of residence at a state level. Although these reported flows are at a county-level or greater the previous residence reported is at a state level in 1970.

Table 3 – Regression of second generation outcomes (1970) on 1940 characteristics

	Logged wage income				High school completion		>= 4 yrs college	
	All	**(State native)**	**Mexican[11]**	**State native[12]**	**All**	**Mexican**	**All**	**Mexican**
1940 metro covariates								
% foreign-born	.2177	1.043***	2.6519**	3.2447	.4220***	1.0336*	-.0491	-.4458
% manufacturing	.2870**	.2323*	.3303	-.5607	.1433**	-.2090	.1788***	.5135***
foreign-born education	.0687***	.0609	.1141 **	.0990	.0736***	.0600**	.0461***	-.0055
1970 characteristics								
age	.0344***	.0343***	.0372***	.0373	-.0067***	-.0171***	-.0044***	-.0021***
female	-.8911***	-1.0443***	-.7281***	-.7206	.0340***	.0769***	-.0833***	.0079
education level	.1089***	.1044***	.1018***	.1102914	----------	----------	----------	----------
labor force size	2.57^{e-08} ***	$3.81e^{-08}$ ***	1.90^{e-08}	4.18^{e-08}	4.05^{e-09} ***	3.70^{e-08} **	$1.10e^{-08}$***	$1.84e^{-09}$
% foreign-born	-.3738	-1.7537***	3.1145	-4.0638	-.4327*	-.3717	-.1124	.7023 ***
% manufacturing	.1232	.2011	.5832**	.3784	-.1765	-.4140*	-.3994***	-.5308***
constant	6.6380 ***	6.6932***	6.2899	6.3507	.6728**	.7638***	.2736***	.1539***
r^2	.3261	.3167	.2782	.2638	.0241	.1037	.023	.015
N	29,232	20,698	2143	1560				

* p<.05;**p<.01;***p<.001

[11] These are the 2nd generation of Mexican parentage.

[12] These are the 2nd generation (of Mexican parentage) resident in the same US state where they were born.

Table 4 – Regression of 1.5 generation outcomes (2000) on 1970 characteristics

	Logged wage income		High school completion		>= 4 years college	
	All 1.5	**Mexican 1.5**	**All 1.5**	**Mexican 1.5**	**All 1.5**	**Mexican 1.5**
1970 metro covariates						
% foreign-born	-.3642***	-.1166	2.9020***	1.7999***	1.5598***	.5595***
% manufacturing	.2245***	.2794***	.4477***	-.3652***	.5223***	.0979***
foreign-born education	.0631***	.0514***	.1041***	.0149***	.1080***	.0164***
2000 characteristics						
age	.0529***	.0356***	.0034***	-.0030***	.006237***	.0017***
female	-.4310***	-.5010***	.1000***	.0970***	.0457***	.0212***
education level	.1160***	.0600***	----------	----------	---------	----------
labor force size	8.13^{e-09}***	2.01^{e-08}***	-1.23^{e-08}***	1.18^{e-08}***	-6.08^{e-09}***	-7.04^{e-09}***
% foreign-born	.1551 ***	-.2531***	-.9025***	-.4690***	-.6127***	-.1312***
% manufacturing	.1913***	.0724	-.4569***	.5784***	-.2476***	-.1422***
constant	7.0492***	7.9539***	-.0929***	.3870***	-.6583***	-.1085***
r^2	.1938	.1309	.0511	.017	.031	.015
N	359,949	119,119				

* p<.05;**p<.01;***p<.001