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A Civil Rights Agenda for California's Next Quarter Century



California's Geography of Opportunity: Intergeneration Mobility in the Golden State

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The Civil Rights Project



Proyecto Derechos Civiles

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About the Series

A Civil Rights Agenda for the Next Quarter Century

The Civil Rights Project was founded in 1996 at Harvard University, during a period of increasingly conservative courts and political movements that were limiting, and sometimes reversing, major civil rights reforms. In 2007 the Project moved to UCLA. Its goal was – and still is – to bring together researchers, lawyers, civil rights advocates and governmental and educational leaders to create a new generation of civil rights research and communicate what is learned to those who could use it to address the problems of inequality and discrimination. Created a generation after the civil rights revolution of the 1960s, CRP’s vision was to produce new understandings of challenges and research-based evidence on solutions. The Project has always maintained a strong, central focus on equal education and racial change.

We are celebrating our first quarter century by taking a serious look forward – not at the history of the issues, not at the debates over older policies, not at celebrating prior victories but at the needs of the next quarter century. Since the work of civil rights advocates and leaders of color in recent decades has often been about defending threatened, existing rights, we need innovative thinking to address the challenges facing our rapidly changing society. Political leaders often see policy in short two- and four-year election cycles but we decided to look at the upcoming generation. Because researchers are uniquely qualified to think systematically, this series is an attempt to harness the skills of several disciplines, to think deeply about how our society has changed since the civil rights revolution and what the implications are for the future of racial justice.

This effort includes two very large sets of newly commissioned work. The first set is on the potential for social change and equity policies in the nation. This paper is one of several in the second set of studies that focuses on California, a vast state whose astonishing diversity foretells the

future of the U.S. and whose profound inequality warns that there is much work to be done. All these studies will initially be issued as working papers. They will be brought together in statewide conferences and in the U.S. Capitol and, eventually, as two major books, which we hope will help light the way in the coming decades. At each of the major events, scholars will exchange ideas and address questions from each other, from leaders and from the public.

The Civil Rights Project, like the country, is in a period of transition, identifying leadership for its next chapter. We are fortunate to have collaborated with a remarkable network of important scholars across the U.S., who contributed to our work in the last quarter century and continue to do so in this new work. We are also inspired by the nation's many young people who understand that our future depends on overcoming division. They are committed to constructing new paths to racial justice. We hope these studies open avenues for this critical work, stimulate future scholars and lawyers, and inform policymaking in a society with the unlimited potential of diversity, if it can only figure out how to achieve genuine equality.



Gary Orfield



Patricia Gándara

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Foreword

A fundamental question of all societies is: Will my children do better than I have been able to do? It is a fair question to ask in any society. Parents often make enormous sacrifices, hoping to make life better for their children and families. It is part of the “American dream,” and, of course, a central concern of immigrants, who often struggle with language and displacement, and end up in demanding and difficult jobs so their children can have a better chance. You can see it with kids doing homework in the family-owned restaurant while their parents work or helping out in the family’s food stand. California’s endless streams of migration and immigration has mobility as its central theme – from Horace Greeley’s famous advice, “Go West young man,” to the journeys of desperate parents carrying their children through the jungles of Panama, and the nighttime crossings into the Arizona desert with the Mexican coyotes. If you go to a parents’ event at an inner-city school, where so many single parents struggle with marginal jobs, you hear their hopes for their children. From a civil rights perspective, it is extremely important to have a sense of how life’s possibilities are being shaped for people of various racial and ethnic backgrounds.

Life outcomes cannot be adequately assessed by success or failure in first jobs or the start of a career. To adequately understand them and find answers requires individual data, following large samples of the same people over many years and across generations. A central challenge in reaching this understanding is that, apart from a few high-quality longitudinal surveys, we rarely have such lifetime data, which greatly limits the questions that can be answered.

The Opportunity Insight Project at Harvard, led by Raj Chetty, has been able to obtain and analyze vast data sets because it was given access to income data collected by the federal government’s tax system, which it could link with other key datasets. That project has published path-breaking work showing the lifelong consequences of being born into neighborhoods of differing racial and economic characters, especially in finding important consequences for Blacks.

This paper, by David Mickey-Pabello, has obtained use of this data and examined intergenerational mobility in California, a very different context than the Black-white communities and comparisons common in the South, much of the East Coast and Midwest. Using this data and comparing it to the cross-sectional data provided by the American Community Survey, this study shows that the basic argument in the Chetty studies cannot reliably be extended to California's multiracial, immigrant-driven context, because it is limited to people in the formal labor market paying income and Social Security taxes at the beginning of their work history in this country. This means that unauthorized immigrants are not in the dataset. Within the Harvard data, this study shows that Latinos in the formal economy in California have experienced significant intergenerational mobility. However, cross-sectional data, including undocumented households, shows that the Latino community as a whole has not. This is because those without official status are forced into the black market for labor, where there are no rights or benefits. It is often precarious work, jobs are poorly paid, and there are constant risks of deportation of individual family members.

This study shows that immigration status is a fundamental civil rights issue for the mobility of the overall Latino community. Congress has taken no significant action on immigration since 1986, while the Latino population has grown immensely. Millions of families have to deal with the problems and risks of at least one undocumented member. The state of California, which passed harsh anti-immigrant laws in the 1990s, now has a pro-immigrant state government, but the state has little power over immigration, which is controlled by the federal government and the federal courts. Even the relatively modest DACA program to temporarily legalize the “dreamers” (those brought to the U.S. as small children with no criminal records here) who deserve permanent status, according to the great majority of Americans, has been drastically limited by the courts and blocked by Congressional Republicans. This report suggests that fixing immigration and citizenship policies

would have deep intergenerational consequences for the future of the state's largest community, the Latinos. In research terms it shows the urgent necessity of updating data collection and policy analysis to deal with our complex multiracial reality, in a society that has been remade by immigration in the last half century.

-Gary Orfield

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Executive Summary

In anticipation of the next twenty-five years of civil rights policy in California, this work investigates social mobility in the Golden State between the last two generations to gain insight into which groups could be best served by civil rights policy interventions (*the first aim of the paper*). This study used a publicly accessible database created by Opportunity Insights which employed data from the U.S. Census Bureau and Internal Revenue Service (Chetty, Hendren, Kline, & Saez, 2014; Chetty, Hendren, Kline, Saez, & Turner, 2014) to geospatially analyze the social mobility of children born in the Golden State relative to their parents. Furthermore, this study leverages a complementary dataset from IPUMS USA (Ruggles, 2019) to provide evidence that *Hispanic and Asian mobility is likely mischaracterized in California when non-legal permanent residents (non-LPR) are excluded.*

Study Findings:

- When median household incomes of the entire Hispanic population – including non-LPRs – is considered, they more closely resemble those of the Black population, though are lower (median household income of \$84,000 for Hispanics and \$90,000 for Blacks). *This result, in particular, underscores the importance of including Hispanics who are non-LPRs.*
- Hispanic household incomes have generally increased *in constant dollars* over time (\$69,346 in 1980 to \$84,247 in 2010), but the incomes for Hispanic non-LPRs have declined (\$67,422 in 1990 to \$59,171 in 2010). Respective Asian household incomes have generally increased over time (\$88,630 in 1980 to \$143,087 in 2010), with the incomes for Asian non-LPRs not far off and also increasing (\$89,062 in 1990 to \$135,039 in 2010).
- Bachelor's degree attainment is low for foreign-born Hispanics (3.83% in 1980 to 8.46% in 2010) and lower for non-LPRs (5.12% in 1990 and 4.54% in 2010). However, non-

LPRs Asians have higher educational attainment (36.21% in 1990 and 72.22% in 2010) than all foreign-born Asians (20.65% in 1980 and 61.99% in 1990).

- General migration and migration of non-LPRs are predominantly Hispanic, with the largest regions of origination being Mexico and Central America.
- Although Mexico, Central America, and South America dominate migration patterns in California, during the study period there had been considerable recent Asian migration from China, the Philippines, India, Vietnam, and Korea.
- The omission of non-LPRs from the geospatial analysis of mobility strongly suggests that policy recommendations made for the Hispanic and Asian populations based on Opportunity Insights data in California should be treated with far greater caution.
- When considering only LPRs, the racial hierarchy of household income has shifted between the last two generations: Asians replaced Whites at the top, and Blacks declined to the lowest category.
- Intergenerational transmission of median household income is strong. For each one (1.00) percentage point increase in parents' incomes, there was a 0.91% increase in children's incomes.
- Parents' incomes are ranked in the following order: White, Other, Asian, Black, Hispanic, and Native American.
- Children's incomes are ranked differently: Asian, White, Other, Hispanic, Native American, and Black.
- Asians are the most notably upwardly mobile (national household income percentile increased from 49 to 59).

- Blacks are the most notably downwardly mobile (national household income percentile decreased from 42 to 37).
- Hispanics (with legal status) are shown to be upwardly mobile (national household income percentile increased from 45 to 48).
- Each one (1.0) percentage point increase in Hispanic parents' (excluding non-LPRs) median household income is associated with a 1.75 percentage point increase in Hispanic children's income.
- The White population was downwardly mobile in terms of relative mobility (national household income percentile decreased from 59 to 54).
- There was no net change in the national household income percentile in California.
- 2,394 Census tracts experienced upward mobility compared to 2,699 tracts that experienced downward social mobility.
- Geospatial analysis reveals that Whites and Hispanics are nearly ubiquitous across California.
- Asians and Blacks are geographically isolated and more often situated in California's urban areas.
- Mobility patterns by racial and ethnic group vary across regions and metro areas.

California's Geography of Opportunity: Intergenerational Mobility in the Golden State

by David Mickey-Pabello

Introduction

Inequalities created by generations of racial and economic power imbalances significantly influence societal access to resources and opportunities (Corak, 2013; Erikson & Goldthorpe, 2002; Hout, 2004; Piketty, 2000). It difficult to refer to the U.S. as a “land of opportunity” because intergenerational mobility insinuates that opportunities are provided to children equally across racial and economic lines (Chetty, Hendren, Kline, & Saez, 2014). A child’s ability to maintain their parents’ status or create upward social mobility is rooted in his/her upbringing and early social opportunities. This research looks at descriptive data, cartographic visualizations of demographic data and variables, bivariate analyses (i.e., intergenerational mobility elasticities), and multiple regression through the lens of the “geography of opportunity” so to draw descriptive conclusions about the long-term effects of neighborhood conditions during childhood (de Souza Briggs & Wilson, 2006; Kain & Persky, 1969; Rosenbaum, 1995; Small & Adler, 2019; Small, Manduca, & Johnston, 2018; Wilson, 2011, 2012).

This study treats the mobility of household income as a measure of earnings mobility, *not* wealth, social class, occupational status, and/or educational attainment as other studies have sometimes done (Becker & Tomes, 1979, 1986; Bloome, 2015; Corak, 2013; Lee & Solon, 2009; Tomes, 1981; Torche, 2015). Beyond the outcome variable used to measure mobility, this study varies in terms of who is being characterized by intergenerational mobility. The first analysis focuses on cross sections of household mobility in California from 1980 to 2010. The second analysis focuses on measuring the outcomes of children against those of their parents. Both of these ways of

measuring mobility yield a more complete picture of mobility, allowing us to consider conditions better measured by one analysis over the other.

The first analysis answers questions about the reliability of the Opportunity Insights data as it pertains to describing Hispanic and Asian populations in California – particularly because omitting the undocumented population may lead to egregious mischaracterizations of these populations in the state. The Opportunity Insights data on generational mobility have recently enjoyed much acclaim and use due to their innovative construction. To construct the data set, census data were concatenated to IRS records using an insightful algorithm that allowed children and their parents to be linked in such a way that their intergenerational mobility could be investigated (Bergman et al., 2019; Chetty, Friedman, Hendren, Jones, & Porter, 2018; Chetty & Hendren, 2018a, 2018b; Chetty, Hendren, Jones, & Porter, 2020; Chetty, Hendren, Kline, & Saez, 2014; Chetty, Hendren, Kline, Saez, et al., 2014; Chetty, Looney, & Kroft, 2009). A notable feature of the dataset is that it followed cohorts of children born between 1978 and 1983 into adulthood. If these children or their parents could prove residency in the United States during this timeframe, they were eligible for naturalization under the Immigration Reform and Control Act of 1986, a fact that was critically important because Opportunity Insights data could only include children of U.S. citizens or authorized migrants. Hence, the Opportunity Insights data could not describe the experiences of non-LPRs. This is a significant limitation in California because, according to the Public Policy Institute of California, nearly one in ten California workers is a non-LPR, and 6% of the state’s population are non-LPRs (Hayes & Hill, 2022).

The second analysis investigates the racial and ethnic intergenerational patterns on a deeper level to see what spatial and demographic patterns appear in California, especially because California historically presents higher levels of ethnic and racial diversity than the rest of the nation. Further, the social problems that emerged during California’s transition to majority-minority have begun to

appear across the country (Pastor, 2018), yielding California as an archetype of these patterns. Here, the rigorous analysis of California’s data could provide insight into the future of social mobility over the next quarter-century as the U.S. as a whole experiences a major demographic transition to majority-minority (Colby & Ortman, 2015; Frey, 2018).¹

The study of California also represented an opportunity to meaningfully critique the Opportunity Insights data because California has such a large population that is non-LPR. A very significant group of these migrants are Hispanic. Seventy-nine percent (79%) of California’s non-LPR population was born in either Central or South American (Migration Policy Institute, 2019; Van Hook, Bachmeier, Coffman, & Harel, 2015), hence California is an excellent case study to investigate how social mobility differs when including or excluding this unique population.

To be clear, this study does not allege that the Opportunity Insights data are incorrect. Instead, this study stresses that when non-LPR Hispanics – and, to a lesser extent, Asians – are excluded from analyses based on their identity as LPRs, the results can be substantively different. This has considerable policy implications, and the findings contained in this paper highlight that this caveat in the Opportunity Insights data should be stressed by researchers and policymakers alike. Chetty himself modestly admits in his lectures, “We look at authorized immigrants because these datasets don’t do a great job of covering undocumented immigrants” (2019).

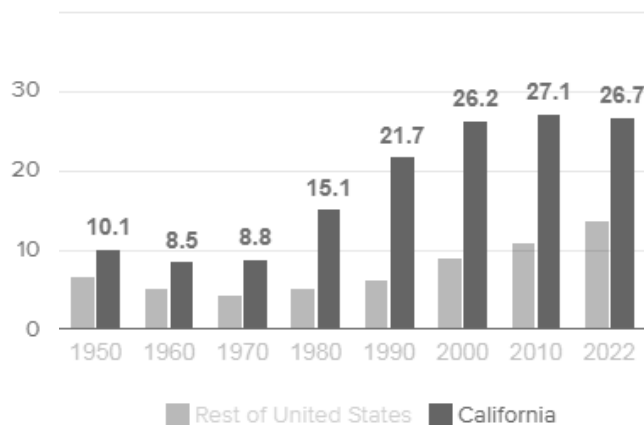
Background: Immigration, Emigration, and California

Over the past 70 years, the share of Californians who are immigrants has exceeded the share of non-Californian immigrants for the rest of the U.S. (Alesia Perez, Cuellar Mejia, & Johnson, 2023). Numerous policy interventions gave rise to such high levels of immigrants: the Bracero Program (1942-1964) brought high numbers of skilled laborers mainly from Mexico; the 1965

¹ Other scholars however, claim that this is merely a “demographic illusion” due largely to the expansion of the individuals who identify with more than one racial group (Alba, 2020).

Immigration Act prioritized family unification and ended a national quota system, increasing both Latin American and Asian migration; the Fall of Saigon led to a significant population increase in California from Southeast Asians; and, the Immigration Reform and Control Act of 1986 legalized most undocumented immigrants who arrived in the country before 1982. Figure 1 shows that 1980 as an inflection point when migration to California changed rapidly. This is notable because the cohorts studied were subject to this uptick in migration, as well as the ensuing neighborhood changes if they had remained in California through adulthood. In the early 2000s, California also became home to several “sanctuary” cities and counties that shielded persons from Immigration and Customs Enforcement. Finally, although a federal DREAM act has yet to be enacted, California passed its own DREAM Act in 2011, giving undocumented immigrant students access to student financial aid, such as private scholarships funded through private universities, state-administered financial aid, university grants, community college fee waivers, and Cal Grants. Together, these policies helped create a population structure in California that became largely comprised of immigrants.

Figure 1. Immigrant Share of Population in California and the Rest of the U.S. Since 1950



Source: Public Policy Institute of California

However, looking at immigration from other countries is only part of California's current migration narrative. California also has a significant share of emigrants, i.e., people who leave California for a different state or country. *Net domestic migration* measures how many people from the other 49 states moved to California versus how many people from California moved to the other 49 states. *Net international migration* measures how many people from different countries moved to California versus how many people from California moved to other countries. The last time California's net domestic migration exceeded its international migration was in 1989 (237,000 to 180,000); this is the first year the children in this study were born, and it is significant to note that they grew up during a period of severe migration changes in California (Gray & Scardamalia, 2012). During their childhood, California not only became a majority-minority, but it also began to have negative net domestic migration, briefly having positive net domestic migration around the turn of the new millennium (1999 and 2000).

The state's net domestic migration has become so prominent that some call it the "California Exodus" (Henrie & Plane, 2008; Huang & Butts, 2023). The losses in net migration, coupled with a decrease in birthrates for California, has produced a decline in California's overall population – and thus a loss of a congressional seat after the 2020 Census. The cause for the California Exodus is predominantly the high cost of living (taxes, food, housing, and other needs and wants), but also includes social issues such as crime, politics, pollution, traffic, and climate change (Cain & Hehmeyer, 2023; Miller, 2020). According to the Public Policy Institute of California, the only group now staying in California are adults with bachelor's and graduate degrees (Johnson, 2019).

Figure 2. California's Net Domestic and International Migration Since 1970



Source: California Department of Finance via Cal Matters

Data & Methods

The data for this paper come from the U.S. Census Bureau and Opportunity Insights, a non-partisan, not-for-profit organization based at Harvard University. The data from both sources connect parents and their children, producing parent-child intergenerational and neighborhood mobility measures. Spatial statistical software also connects the Census tract I.D.s to their corresponding cities and other geographies to visualize how the intergenerational relationships between racial and ethnic identity and household income vary across places. The Opportunity Insights data set was combined using three different data sources: 1) the 2000 and 2010 Census short forms; 2) IRS tax return data for years 1989, 1994, 1995, and 1998-2015; and, 3) the Census 2000 long form and the 2005-2015 American Community Surveys (ACS). The data were combined by Opportunity Insights (Chetty et al., 2020) using a unique person identifier known as a Protected

Identification Key (PIK) and an algorithm described by Layne, Wagner, and Rothhaas (2014). The data released to the public by Opportunity Insights were aggregated to the tract level.

More finite data on race, ethnicity, and educational attainment were not available at this level because they were not approved by the Census Bureau's Disclosure Review Board (authorization number CBDRB-FY18-319). This severely hampered the analysis performed by the publicly available Opportunity Insights data. The smallest available unit of analysis that could be used was the Census tract, and several variables (such as educational attainment) were not available at the tract level. The Neighborhood Change Database was used to add tract-level information for California from 1980 to 2010 to overcome this limitation. These data harmonized the tracts from 1980 to 2010 to ensure that units of analysis were comparable over time. This was essential because the number and size of census tracts in a state like California change from one decennial census to the next. The data were harmonized using area weights – the most common method to harmonize tracts (Logan, Xu, & Stults, 2014).

The Opportunity Insights sample consisted of children born between 1978 and 1983 who were either born in the U.S. or were authorized immigrants, i.e., came to the U.S. in childhood with parents who were either U.S. citizens or authorized immigrants.² Notably, however, this sample excluded children who were non-LPRs or who were claimed as dependents by people who were non-LPRs. This was a particular limitation for Hispanics because, according to the Public Policy Institute of California, nearly one in ten California workers is undocumented and 6% of the state's whole population (Hayes & Hill, 2022); increasingly, this is a limitation for Asian migrants in California as well.

² The analysis is limited to children born after 1978 because the first year of dependent claiming information is 1994, and many children leave the household at age 17 (Chetty, Hendren, Kline, & Saez, 2014).

Parents were defined as the persons who claimed the child as a dependent. If a single tax filer claimed the child, s/he was described as a *single parent*. If two tax filers claimed the child, the child as defined as *having two parents*. For simplicity, children were assigned to the first filing found for them regardless of whether the family composition subsequently changed. The resulting sample captured 96% of the target population. However, the race-specific estimates excluded about 5% of all children because they could not be linked to the Census or ACS. This missing 5% was still included in the pooled/all-races category. Robustness checks comparing this sample to the ACS are detailed by Chetty and colleagues (2020).

IPUMS USA data from 1980, 1990, 2000, and 2010 provided complimentary analysis without non-LPRs in the Opportunity Insights data. As a rule, these data produce a different type of mobility than the Opportunity Insights data in that they measure how cross-sections of households in California have changed from 1990 to 2010. This is important to contrast because the Opportunity Insights data produces measures of *parent-child intergenerational mobility*. Migration is the distinctive feature that separates these mobility analyses across the same periods. According to the Opportunity Insights data, some children leave their neighborhoods when they reach adulthood. According to the IPUMS USA data, some individuals move into and out of neighborhoods over time. The data from 1980, 1990, and 2000 use five-percent samples, with each U.S. household having a one in twenty chance of being selected.

Furthermore, these households were restricted to 31- to 37-year-olds being present in order to best reflect the age of the children and parents as captured by Opportunity Insights when their household income data was collected. This income data was adjusted for inflation. Differences between the measurements, the legal edits procedure used to calculate the non-LPR population, a discussion about regression to the mean, and weights are all described in the Appendices at the end of this document.

Part 1: Trends of Californians from 1980 to 2010

California became wealthier, more educated, and more racially diverse during the 40 years studied. Table 1 provides descriptive characteristics for Californians in the 31- to 37-year-old age group, indicating that people in this age group changed considerably during this time. When compared to the earlier time points, those in the later time points were: less likely to be citizens, more likely to be foreign-born, more likely to be unemployed (during the Great Recession), had greater educational attainment, were less likely to be Black or White, more likely to be Hispanic, more likely to rent than own, paid over \$1,000 more in monthly housing costs (adjusted for inflation), more likely to be part of a more prominent family, and had household incomes that were 33% greater (adjusted for inflation).

Table 1. Demographics of 31- to 37-year-olds in California

		1980		2010		
		Share		Share		
Categorical Variables	Person Level Variables	Citizenship				
		<i>Citizen Born in the US</i>	80.88%		57.71%	
		<i>Born abroad of American parents</i>	0.48%		1.11%	
		<i>Naturalized citizen</i>	6.13%		14.40%	
		<i>Not a citizen</i>	12.51%		26.77%	
		Employment				
		<i>Employed</i>	75.93%		72.66%	
		<i>Unemployed</i>	3.99%		8.42%	
		<i>Not in labor force</i>	20.08%		18.92%	
		Education				
		<i>Less than HS</i>	16.07%		15.43%	
		<i>High school</i>	24.82%		20.86%	
		<i>Some college</i>	31.82%		27.68%	
		<i>Bachelor's or greater</i>	27.29%		36.04%	
		Race				
		<i>White</i>	84.46%		59.36%	
		<i>Black</i>	7.10%		4.93%	
		<i>American Indian or Alaska</i>	1.03%		0.96%	
		<i>Asian</i>	6.49%		16.95%	
	<i>Other</i>	0.92%		17.80%		
	<i>Hispanic</i>	17.18%		40.22%		
	Female head of household	17.90%		17.03%		
	Share who Rent	40.59%		51.76%		
		Mean	SD	Mean	SD	
Continuous Variables	Household Variables	Monthly housing costs	\$1,404	\$1,089	\$2,433	\$1,640
		Family Size	3.32	1.74	3.58	1.94
		Household Income	\$86,463	\$54,049	\$115,000	\$99,928

Note: Data come from the IPUMS USA 1980 5% state sample; 1990 5% state sample; 2000 5% sample; and the 2010 American Community Survey sample. See <https://usa.ipums.org/usa/sampdesc.shtm> for sample descriptions. N/A is used when the subgroup n<100. By the definition use in the legal edits procedure there are no non-LPRs for 1980 and earlier.

Part 2: Where Are California’s Migrants Coming From?

The largest shares of California’s migrants come from Mexico and Central America. This is true for all migrants (see Table 2), as well as non-LPRs (see Table 3). However, Mexico’s share of undocumented migrants is far larger than its share of general migrants in every single decade, although that gap has become narrower since 2000. Behind these Latin-American countries and regions are Asian countries, such as the Philippines, China, Vietnam, India, Korea, and Japan. These groups comprise 15-20% of California’s non-legal permanent residents and 25-35% of all California’s immigrants aged 31-37.

Table 2. Top 10 Countries of Birth for California's Immigrants Aged 31-37

Country/Region	1980	Country/Region	1990	Country/Region	2000	Country/Region	2010
Mexico	35.29%	Mexico	38.66%	Mexico	50.74%	Mexico	46.32%
Philippines	8.91%	Central America	9.22%	Central America	9.23%	Central America	8.07%
Central America	5.22%	Philippines	7.7%	Philippines	5.84%	Philippines	6.94%
China	5.18%	China	5.76%	China	5.10%	China	6.20%
Abroad (unknown) or at sea	4.70%	Vietnam	4.54%	Vietnam	4.65%	India	5.77%
South America	3.74%	Abroad (unknown) or at sea	4.02%	India	3.23%	Vietnam	5.56%
Canada	3.34%	Korea	3.27%	Korea	2.33%	Korea	2.70%
Germany	3.20%	South America	2.76%	South America	2.17%	South America	2.06%
Korea	3.01%	Iran	2.14%	Iran	1.37%	Other USSR/Russia	1.99%
England	2.71%	India	2.12%	Japan	1.35%	Africa	1.31%

Note: Data come from the IPUMS USA 1980 5% state sample; 1990 5% state sample; 2000 5% sample; and the 2010 American Community Survey sample. See <https://usa.ipums.org/usa/sampdesc.shtml> for sample descriptions.

Table 3. Top 10 Countries of Birth for California’s Non-LPR Aged 31-37

Country/Region	1980	Country/Region	1990	Country/Region	2000	Country/Region	2010
N/A	N/A	Mexico	62.38%	Mexico	60.22%	Mexico	61.85%
N/A	N/A	Central America	14.94%	Central America	11.83%	Central America	9.57%
N/A	N/A	China	7.51%	China	4.24%	India	6.68%
N/A	N/A	Philippines	5.63%	India	3.76%	China	4.54%
N/A	N/A	Vietnam	5.31%	Philippines	2.94%	Philippines	3.49%
N/A	N/A	Korea	4.52%	Korea	1.99%	Korea	1.90%
N/A	N/A	Abroad (unknown) or at sea	3.83%	Vietnam	1.95%	South America	1.41%
N/A	N/A	South America	2.99%	South America	1.78%	Vietnam	1.23%
N/A	N/A	India	2.98%	Japan	1.38%	Japan	0.96%
N/A	N/A	Japan	2.51%	Other USSR/Russia	1.25%	Other USSR/Russia	0.87%

Note: Data come from the IPUMS USA 1980 5% state sample; 1990 5% state sample; 2000 5% sample; and the 2010 American Community Survey sample. See <https://usa.ipums.org/usa/sampdesc.shtm> for sample descriptions.

Part 3: Understanding the Importance of Migration and Legal Status on Household Income and Educational Attainment

This section provides evidence that, across the four decades studied, all racial and ethnic groups saw gains in personal income and educational attainment. However, results for immigrants – particularly non-LPRs – were less clear, with apparent differences across racial and ethnic groups. Hispanic non-LPRs in particular appear to lag behind other non-LPRs from other racial and ethnic groups. Hispanics stand in stark contrast to Asian foreign-born and non-LPRs who seem to outperform both Blacks and Hispanics of similar citizenship statuses across measures of household income and educational attainment. The Asian non-LPRs outperformed White non-LPRs in 2010.

Tables 4, 5, and 6 describe households with 31- to 37-year-olds in California over four decades. Table 4 and Figure 3 consider households with at least one parent aged 31-37 as units of analysis. Tables 5 and 6 consider the individuals aged between 31- and 37-years units of analysis.

Table 4 is consistent with our finding that racial hierarchy shifted from White-dominance to Asian-dominance, but this is not true when considering the racial hierarchy of foreign-born persons which has remained White-dominant over time. The results suggest that the shift from White to Asian dominance in household incomes occurred sometime between 1990 and 2000, as the children in the Opportunity Insights data were beginning adulthood. However, the results in Table 4 suggest that the hierarchical shift between Whites and Asians is not due to absolute declines (i.e., decrease in household incomes) because the incomes of both groups grew during this period; instead, the shift is relative in that Asians have gained relatively more as compared to Whites.

Table 4. Household Income of the 31-37 Age-Group in California Over Time

Median Household Income	All Persons				All Foreign Born				All Non-LPR			
	1980	1990	2000	2010	1980	1990	2000	2010	1980	1990	2000	2010
All Races	\$88,913	\$110,042	\$118,313	\$118,302	\$75,709	\$91,935	\$99,321	\$103,056	N/A	\$78,183	\$82,524	\$79,996
White	\$95,409	\$122,442	\$141,869	\$142,852	\$90,673	\$118,310	\$145,068	\$150,963	N/A	\$92,938	\$134,773	\$130,865
Asian	\$92,802	\$117,597	\$142,161	\$152,947	\$88,630	\$110,785	\$134,960	\$143,087	N/A	\$89,062	\$121,292	\$135,039
Black	\$70,775	\$65,117	\$92,347	\$90,811	\$63,278	\$92,019	\$100,638	\$92,003	N/A	\$71,622	\$82,822	\$80,123
Hispanic	\$69,346	\$83,868	\$86,814	\$84,247	\$61,195	\$73,707	\$76,235	\$70,804	N/A	\$67,422	\$67,275	\$59,171
Native American	\$77,766	\$81,258	\$90,923	\$77,259	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Other	\$77,509	\$98,151	\$114,291	\$111,020	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Note: Data come from the IPUMS USA 1980 5% state sample; 1990 5% state sample; 2000 5% sample; and the 2010 American Community Survey sample. See <https://usa.ipums.org/usa/sampdesc.shtml> for sample descriptions. N/A is used when the subgroup n<100. By the definition use in the legal edits procedure there are no non-LPRs for 1980 and earlier.

Figure 3. Household Income of the 31-37 Age-Group in California Over Time

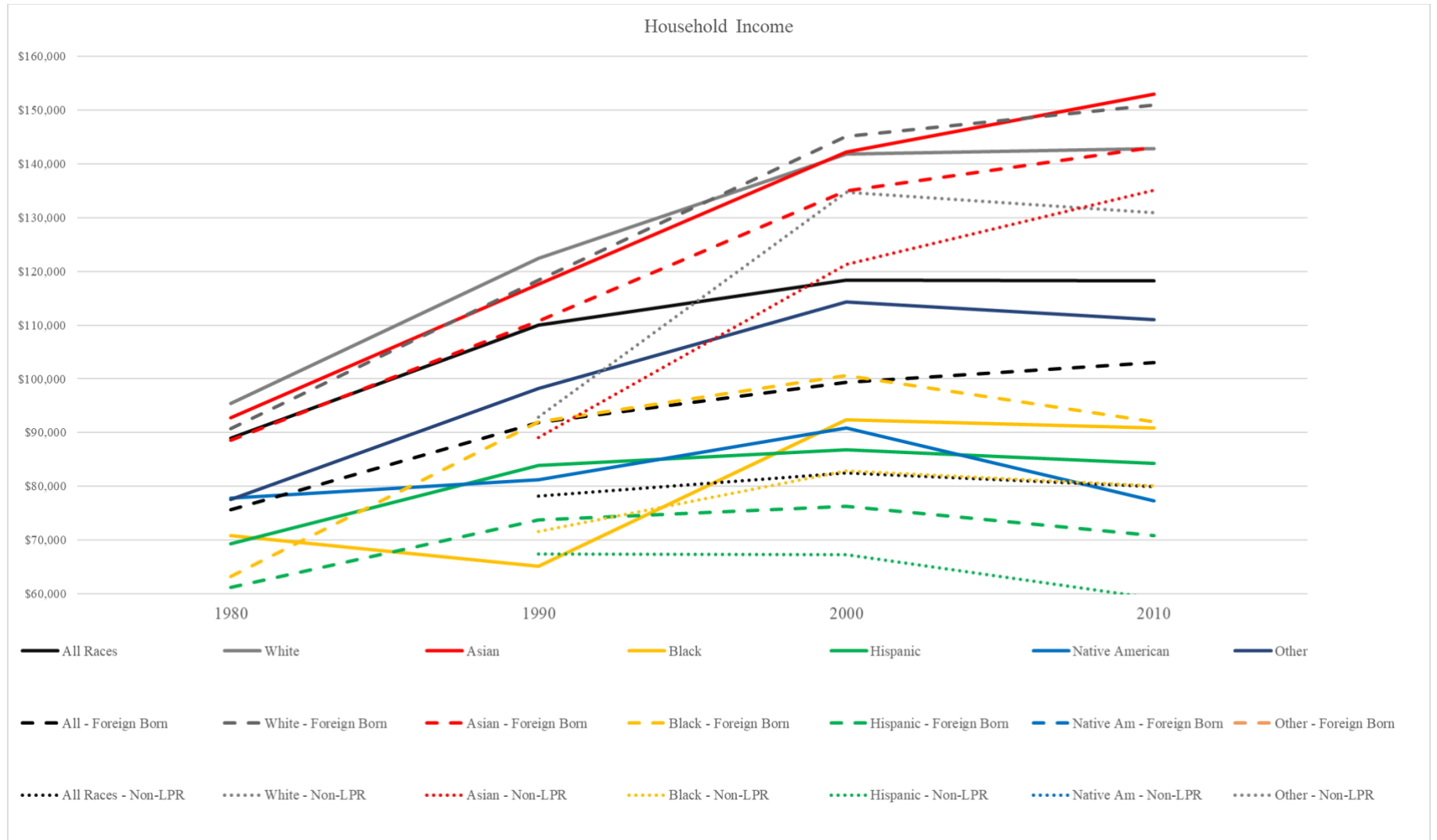


Table 4 also shows how the Great Recession halted the rise of incomes between 2000 and 2010 for every group but Asians. However, this pattern was not actual for White and Asian foreign-born and non-LPRs and was valid for Black and Hispanic non-LPRs. The most notable declines in household incomes were for the Native American group, falling from \$90,923 to \$77,259, and for the Hispanic non-LPR group, falling from \$67,275 to \$59,171. Across all racial and ethnic groups, the non-LPR group had lower incomes than both the typical foreign-born person and the typical person aged 31-37 in California. However, the differences are starkest when comparing the Hispanic non-LPR group (\$59,171 in 2010) to the Hispanic foreign-born group (\$70,804 in 2010) and the typical Hispanic person aged 31-37 in California (\$84,247 in 2010). This suggests that the Opportunity Insights data results may not accurately depict the Hispanic population (or its mobility patterns) in areas where the undocumented population may be substantially more prominent (such as California). Readers should interpret the parent-child mobility section of results using the Opportunity Insights data with this important caveat.

Much of the median household income disparities across groups may also be a function of differences in educational attainment across racial and ethnic groups (as shown in Tables 5 and 6) – information missing from the publicly available Opportunity Insights data.

Table 5. Bachelor's Degree Attainment of the 31-37 Age-Group in California Over Time

Bachelor's Degree	All Persons				All Foreign Born				All Non-LPR			
	1980	1990	2000	2010	1980	1990	2000	2010	1980	1990	2000	2010
All Races	15.40%	25.28%	26.54%	36.04%	12.30%	20.50%	21.19%	31.46%	N/A	19.87%	16.98%	22.46%
White	18.36%	31.20%	37.16%	50.02%	19.28%	38.88%	47.42%	62.65%	N/A	38.06%	53.39%	64.86%
Asian	21.45%	39.64%	50.15%	63.05%	20.65%	37.95%	49.17%	61.99%	N/A	36.21%	55.83%	72.22%
Black	8.09%	17.99%	16.71%	23.16%	22.10%	33.09%	30.65%	38.54%	N/A	28.36%	32.98%	33.33%
Hispanic	4.69%	7.61%	7.83%	13.79%	3.83%	5.51%	5.08%	8.46%	N/A	5.12%	3.62%	4.54%
Native American	7.59%	9.55%	10.03%	19.27%	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Other	22.70%	16.96%	31.90%	39.02%	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Note: Data come from the IPUMS USA 1980 5% state sample; 1990 5% state sample; 2000 5% sample; and the 2010 American Community Survey sample. See <https://usa.ipums.org/usa/sampdesc.shtm> for sample descriptions. N/A is used when the subgroup n<100. By the definition use in the legal edits procedure there are no non-LPRs for 1980 and earlier.

Table 6. High School Attainment of the 31-37 Age-Group in California Over Time

High School Attainment	All Persons				All Foreign Born				All Non-LPR			
	1980	1990	2000	2010	1980	1990	2000	2010	1980	1990	2000	2010
All Races	59.11%	60.11%	55.72%	81.84%	43.27%	41.92%	40.14%	68.39%	N/A	35.84%	27.96%	51.23%
White	66.41%	71.33%	72.51%	95.62%	61.85%	71.63%	76.83%	94.88%	N/A	63.30%	74.22%	91.12%
Asian	70.49%	70.00%	75.97%	94.53%	68.62%	67.39%	74.74%	93.82%	N/A	57.93%	73.38%	92.92%
Black	54.93%	62.23%	59.05%	88.18%	62.98%	73.92%	69.84%	94.79%	N/A	68.66%	60.64%	83.33%
Hispanic	28.10%	28.99%	27.77%	62.95%	19.28%	18.77%	18.85%	48.43%	N/A	14.78%	11.63%	35.53%
Native American	48.10%	51.69%	47.87%	85.32%	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Other	60.12%	50.89%	64.16%	92.68%	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Note: Data come from the IPUMS USA 1980 5% state sample; 1990 5% state sample; 2000 5% sample; and the 2010 American Community Survey sample. See <https://usa.ipums.org/usa/sampdesc.shtm> for sample descriptions. N/A is used when the subgroup n<100. By the definition use in the legal edits procedure there are no non-LPRs for 1980 and earlier.

The levels of educational attainment (both bachelor's and high school degrees) for Hispanics were indeed the lowest of any racial and ethnic group for every decade. They were even lower when considering non-LPRs. The educational attainment of Hispanic non-LPRs was lower in 2010 (4.54%) than it was for all Hispanics in 1980 (4.69%). These Tables suggest that the low educational attainment of Hispanic non-LPRs reveals educational inequality between Hispanics (of any citizenship status) and other racial and ethnic groups in California. Unlike the differences between White and Asian household incomes, the trends in educational attainment do not show a hierarchy shift – they show that since the 1980s, Asians have had a higher bachelor's degree attainment than Whites in California. Furthermore, because there appears to be no hierarchy shift in the educational attainment between Whites and Asians, educational attainment does not seem to explain the hierarchy shift in the household income of Whites and Asians.

Table 7. Linear Regression: The Importance of Citizenship on Household Income

	Coef.	Sig.	S.E.
Intercept	67,812.36	***	1,000.41
Citizenship (ref: Citizen)			
<i>Born abroad of American parents</i>	1,852.83		1,368.70
<i>Naturalized citizen</i>	-5,623.67	***	517.08
<i>Not a citizen</i>	-7,193.88	***	518.25
Legal permanent resident (ref: Non-LPR)			
Employment			
<i>Unemployed</i>	-14,299.87	***	637.16
<i>Not in labor force</i>	-14,377.92	***	361.99
Rent (ref: Own)			
Monthly housing costs	25.10	***	0.11
Female head of household	-22,240.23	***	372.02
Family size	1,388.57	***	79.65
Education (Ref: Less than HS)			
<i>High school</i>	3,612.99		463.52
<i>Some college</i>	9,425.67	***	470.82
<i>Bachelor's or greater</i>	33,948.70	***	508.50
Race (ref: White)			
<i>Black</i>	-9,323.98	***	557.23
<i>American Indian or Alaska Native</i>	-7,373.85	***	1,317.63
<i>Asian</i>	-176.25		533.92
<i>Other</i>	-4,881.05	***	486.36
Hispanic (ref: Not Hispanic)			
<i>Hispanic</i>	-7,029.81	***	436.99
Year (ref: 1980)			
<i>1990</i>	5,810.76	***	366.02
<i>2000</i>	20,294.11	***	379.59
<i>2010</i>	7,047.86	***	634.71
N=302,835	R-Squared = 0.3316		

Note: Data come from the IPUMS USA 1980 5% state sample; 1990 5% state sample; 2000 5% sample; and the 2010 American Community Survey sample. See <https://usa.ipums.org/usa/sampdesc.shtm> for sample descriptions.

The importance of citizenship on household income was also estimated via regression analysis as shown on Table 7. Household income was not logged as is conventionally done because it is non-parametric and the output makes it easy to interpret the impacts of citizenship and other independent and control variables. The findings show that when estimating household income, naturalized citizens and non-citizens made, on average, \$5600 and \$7100 less than citizens born in the U.S.; furthermore, LPRs made, on average, \$5300 more than their non-LPR counterparts. Because non-LPRs are also non-citizens, the model suggests they make \$1240 less than LPRs born in the U.S. *ceteris paribus*. This is further exacerbated by the fact that most non-LPRs are Hispanic (income penalty of \$7,000). Since non-LPRs are not represented by the Opportunity Insights data, these findings provide powerful evidence that Chetty and colleagues (2020) grossly misrepresent the Hispanic population in California.

Part 4: Intergenerational Mobility Patterns from Opportunity Insights

As previously stated, mobility patterns should be interpreted with the important caveat that they do not represent non-LPRs. Tables 8 and 9 describe the income percentiles of children and their parents using the Opportunity Insights data; despite solid evidence indicating that it mischaracterizes the Hispanic population and, perhaps to some extent, the Asian population, this analysis remains essential. It describes the White and Black populations well in California and still provides a highly accurate characterization of the mobility of LPRs and their children in California. Because it excludes the non-LPR population, it offers an exciting opportunity to study the Hispanic population when its members have achieved legal status.

Table 8. Parent’s Income Percentile by Racial Group in California

	Number of Tracts Where This Race is Present	Mean Number of Children within a CA Tract (when non-missing)	SD	Mean Parental Household Income Percentile for Tracts (Unweighted by Number of Children)*	SD	Mean Parental Household Income Percentile for Tracts (Weighted by Number of Children)*	SD
All Races	7,950	609	306	0.51	0.2	0.49	0.15
White	7,284	250	183	0.59	0.1	0.62	0.12
Asian	4,921	89	89	0.49	0.2	0.49	0.16
Black	3,482	87	90	0.42	0.2	0.40	0.11
Hispanic	7,430	217	193	0.45	0.1	0.39	0.11
Native	45	33	18	0.38	0.1	0.38	0.13
Other	4,071	36	17	0.54	0.1	0.54	0.13

Notes:*Tracts are the units of analysis. Because the mean for each tract is reported analytic weights are used to produce a more accurate state-level mean. The percentile is based on national estimates.

Table 9. Children’s Income Percentile by Racial Group in California (as Adults)

	Number of Tracts Where This Race is Present	Mean Number of Children within a CA Tract (when non-missing)	SD	Mean Child (as Adult) Household Income Percentile for Tracts where they Grew Up (Unweighted by Number of Children)*	SD	Mean Child (as Adult) Household Income Percentile for Tracts where they Grew Up (Weighted by Number of Children)*	SD
All Races	7,950	609	306	0.50	0.08	0.50	0.70
White	7,284	250	183	0.54	0.07	0.56	0.06
Asian	4,921	89	89	0.59	0.07	0.60	0.06
Black	3,482	87	90	0.37	0.06	0.36	0.05
Hispanic	7,430	217	193	0.48	0.06	0.46	0.04
Native	45	33	18	0.38	0.10	0.38	0.10
Other	4,071	36	17	0.51	0.09	0.51	0.08

Notes:*Tracts are the units of analysis. Because the mean for each tract is reported analytic weights are used to produce a more accurate state-level mean. The percentile is based on national estimates.

The first columns of both tables count how many tracts represent the various racial and ethnic groups in the study. White and Hispanic children are represented in nearly all tracts, Asians are represented in about five out of every eight tracts, Blacks are represented in less than half of all tracts in California, and Other is represented in nearly half of all California tracts. The average number of children per tract (when non-missing) is shown in the second column. They show that White children are the most represented, closely followed by Hispanic children. There are nearly 90 Black and Asian children per tract when they are present in a tract, 33 Native American, and 36 Other children per tract (when non-missing). The parents' incomes are ranked in the following order: White, Other, Asian, Black, Hispanic, and Native American. The children's incomes are ranked differently: Asian, White, Other, Hispanic, Native American, and Black. Concerning the shifting order, Asians are the most notably upwardly mobile, while Blacks are the most downwardly mobile from generation to generation.

Net mobility is detailed in Table 10 and shows that Asians and Hispanics made large and statistically significant gains relative to their parents (0.11% and 0.07%, respectively), while Whites and Blacks experienced statistically significant losses relative to their parents (-0.06 and -0.04, respectively).

Table 10. Net Intergenerational Mobility (Household Income)

	Number of Tracts Where This Race is Present	Mean Number of Children within a CA Tract (when non-missing)	SD	Mean of Differences Between Children and Parents in Household Income Percentile for Tracts (Unweighted by Number of Children)	SD	Mean of Differences Between Children and Parents in Household Income Percentile for Tracts (Weighted by Number of Children)	SD	t-test for Differences Between Children and Parents in Household Income Percentile for Tracts
All Races	7,950	609	306	0.00	0.09	0.00	0.09	***
White	7,284	250	183	-0.04	0.08	-0.06	0.07	***
Asian	4,921	89	89	0.10	0.13	0.11	0.12	***
Black	3,482	87	90	-0.04	0.09	-0.04	0.08	***
Hispanic	7,430	217	193	0.03	0.10	0.07	0.08	***
Native American	45	33	18	0.00	0.09	0.00	0.09	
Other	4,071	36	17	-0.02	0.11	-0.02	0.10	***

Notes: Tracts are the units of analysis. Because the mean for each tract is reported analytic weights are used to produce a more accurate state-level mean. The percentile is based on national estimates. * p<0.05, **p<0.01, p<0.001. Weights are not necessary for the t-test because each group receives the same weight for each tract.

In California, when all races are combined, roughly one-third of children experience upward mobility, one-third experience downward mobility, and one-third experience no change in mobility (see Table 11). However, the ethnic and racial patterns of mobility are very different. Whites have experienced more downward mobility than any other group. Most Asian neighborhoods did not experience any change in mobility, which is curious because only 6.38% of tracts experienced upward social mobility for Asians; yet, there is the most

remarkable positive difference between this racial group and their parents. This suggests that the mobility experienced by this racial group was very high in tracts where there was upward social mobility.

Table 11. Upward, Downward, and No Mobility in California

	Number of Tracts Where This Race is Present	Number of Tracts Where Upward Social Mobility Occurred	% of Tracts Experiencing Upward Mobility	Number of Tracts Where Downward Social Mobility Occurred	% of Tracts Experiencing Downward Mobility	Number of Tracts Where No Social Mobility Occurred	% of Tracts Experiencing No Mobility
All Races	7,950	2,394	30.11%	2,699	33.95%	2,857	35.94%
White	7,284	868	11.92%	3,917	53.78%	2,499	34.31%
Asian	4,921	314	6.38%	638	12.96%	3,969	80.65%
Black	3,482	544	15.62%	1,587	45.58%	1,351	38.80%
Hispanic	7,430	3,510	47.24%	1,681	22.62%	2,239	30.13%
Native American	45	14	31.11%	12	26.67%	19	42.22%
Other	4,071	996	24.47%	1,779	43.70%	1,296	31.83%

Notes: Upward social mobility is defined by at least a 0.05 increase from parent's income percentile (0.99 maximum). Downward social mobility is defined by at least a 0.05 decrease. No mobility occurred when income was $< |0.05|$ different.

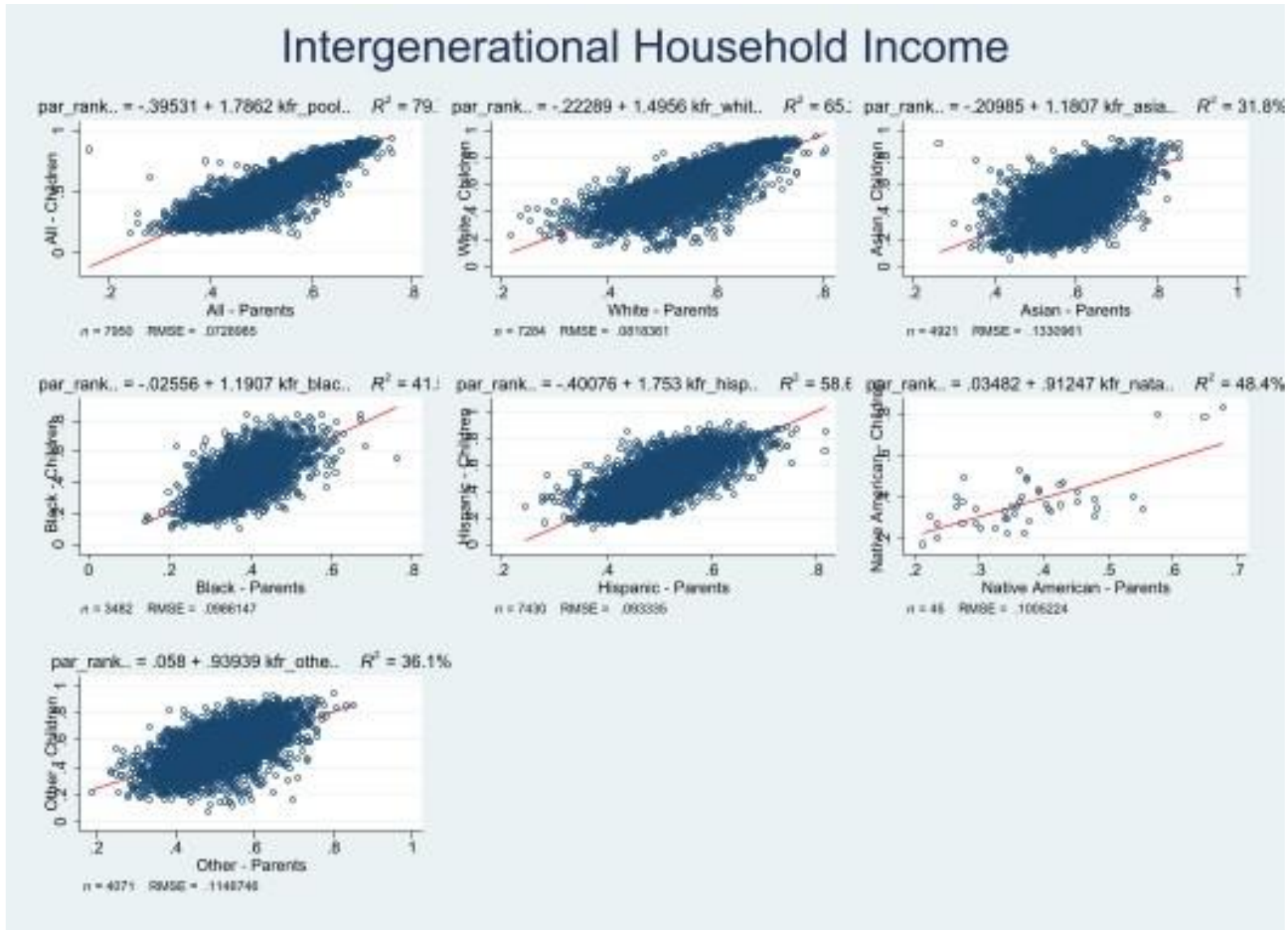
A further finding is that the number of downwardly mobile tracts for Blacks outnumbered the number of upwardly mobile tracts for Blacks 3:1. The opposite was true for Hispanics: the number of downwardly mobile tracts for Hispanics lagged behind the number of

upwardly mobile tracts for Hispanics 1:2. Of note is that Blacks and Hispanics have opposite patterns here when non-LPRs are omitted from the analysis.

Part 5: Racial and Ethnic Intergenerational Mobility in California and its Major Cities

The bivariate regression analyses below show the regression of children's household incomes as adults (dependent variable) on their parents' household incomes (independent variable) at the census-level. The California state-level graphs for intergenerational household income include output for Native Americans; however, since there are only 45 such tracts across the state, this group was not included in our analysis of cities. The California-level graphs (see Figure 4) indicate that parents' household incomes are very strongly related to children's incomes. For all groups, the R-squared values are larger than 30%, and the weakest (in magnitude) relationships for intergenerational household income are for those identified as Native American and Other. For each percentage point increase in parents' household incomes, the children's household incomes grew by 0.91%. The relationships for Hispanics are the strongest in magnitude. A one-percentage-point increase in parents' household incomes along the national income distribution is related to a 1.75% increase in Hispanic children's household incomes.

Figure 4. Household Income Elasticities in California



Figures 5 through 8 show that patterns in generational income vary greatly across California's major metropolitan centers. For Whites, the regression coefficient is the weakest (0.82%), but the results are consistent with the state-level pattern in the other major cities in California. Across all California cities, the linear fit for Asian intergenerational income is not as strong as that of different racial groups. This is particularly true in Los Angeles, where the R-Squared value is 15.3%. The regression coefficient is also the weakest in Los Angeles (0.80%). This suggests that parents' incomes are not very strong predictors of children's incomes. In Los Angeles, in particular, this could be explained by the large number of post-war immigrants from the Vietnam War in the late 1970s. In 1990, nearly one-third of Asians in California lived in Los Angeles County; 22% were Filipino, 21% Chinese, 13% Korean, and 6% Vietnamese (Ong & Azores, 1994). Asians in Los Angeles are less segregated than Blacks and Latinos and, by contrast, they are commonly found within areas that are White, Black, and Hispanic. As such, their mobility patterns are diverse and non-linear. The R-Squared (52.1%) and regression coefficient (1.49%) were the greatest for Asians from Sacramento. These stronger, linear numbers reflect that the percentage of foreign-born Asians is lower in Sacramento than in California, and that the largest group is Chinese. This population has existed since a wave of Chinese immigrants came to California in 1850. However, this wave became constrained by laws in 1862 and 1879, ultimately ending with the Chinese Exclusion Act in 1882.

The regression coefficient value for Blacks was less than 1.00% in Los Angeles and San Francisco but greater than 1.00% in San Diego and Sacramento. The coefficients below 1.00% indicate that for each percentage point increase in the income percentile rank of the parents' household income, the children's household income increased by less than a point. In other words, Black parents had better household incomes than their children in Los Angeles and San Francisco. Hispanics had very high regression coefficients across all the cities, meaning that they were generally

upwardly mobile across California (however, note that non-LPRs were excluded from this analysis). The Other group had patterns of generational transmission of income that most closely resembled the pattern of Blacks: smaller regression coefficients in Los Angeles and San Francisco and larger values in San Diego and Sacramento. These figures indicate significant geographic heterogeneity for all racial and ethnic groups – except Hispanics – with regression coefficients well above one for every geographic area considered.

Figure 5. Household Income Elasticities in Los Angeles

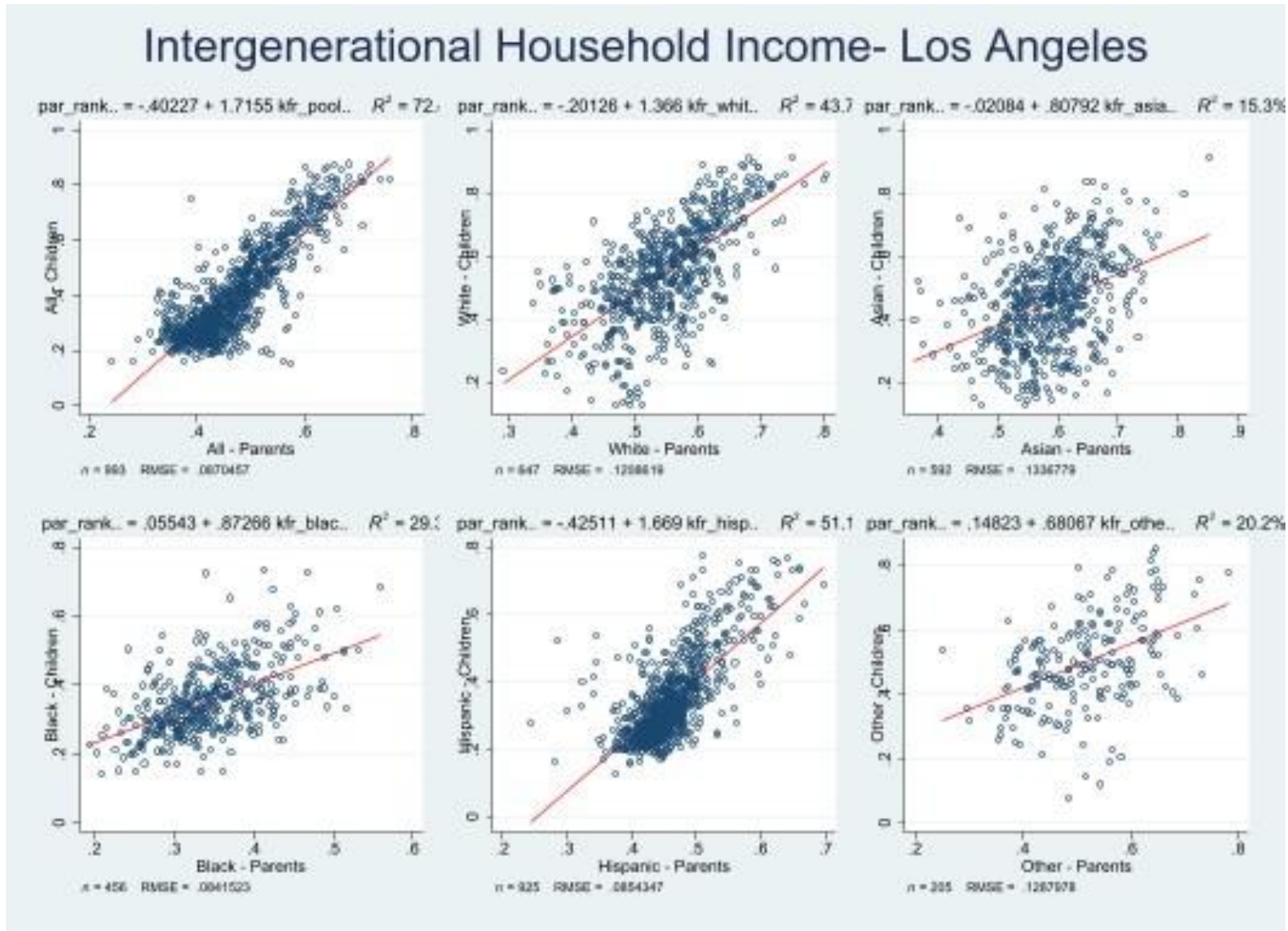


Figure 6. Household Income Elasticities in San Diego

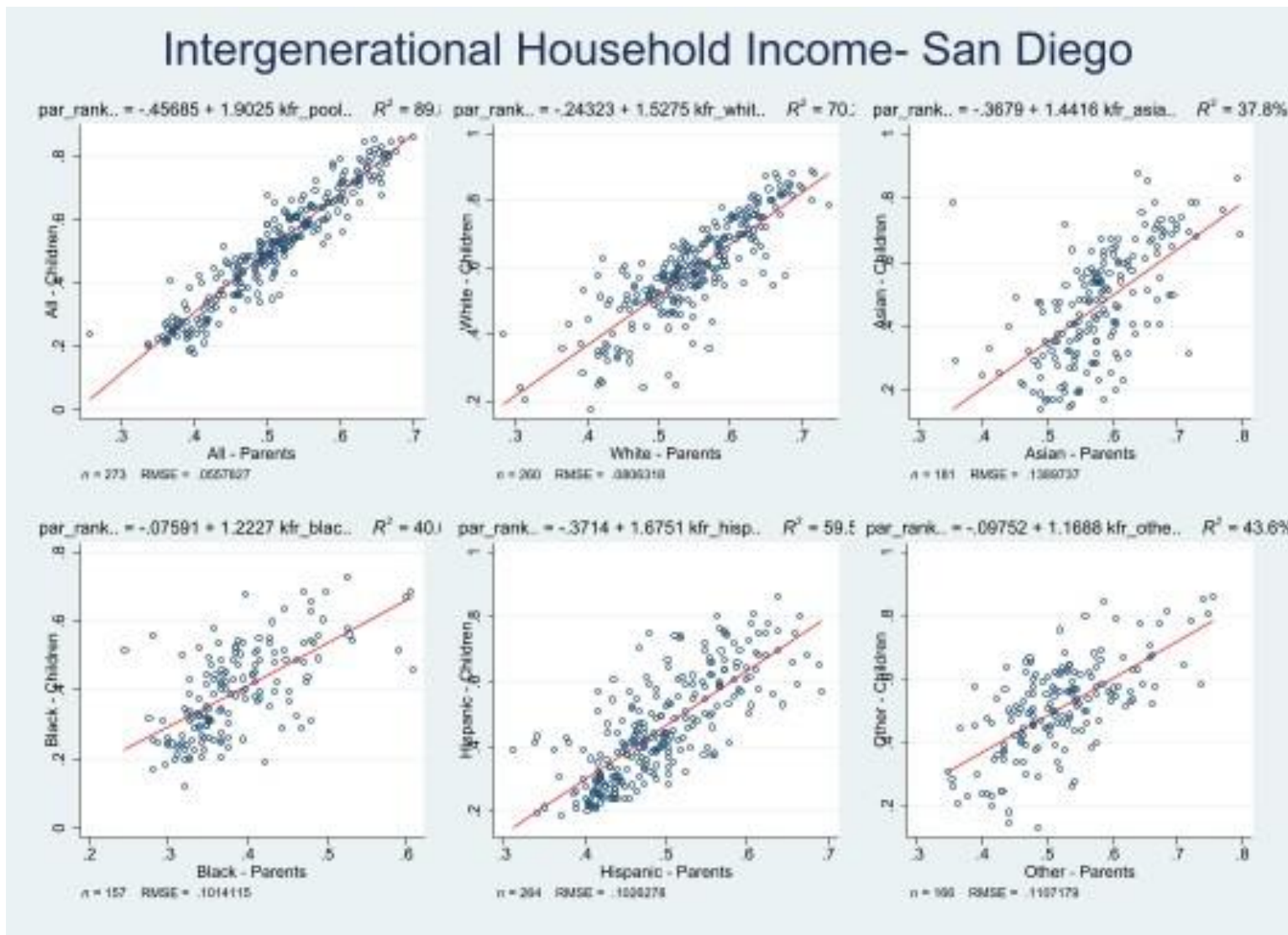


Figure 7. Household Income Elasticities in Sacramento

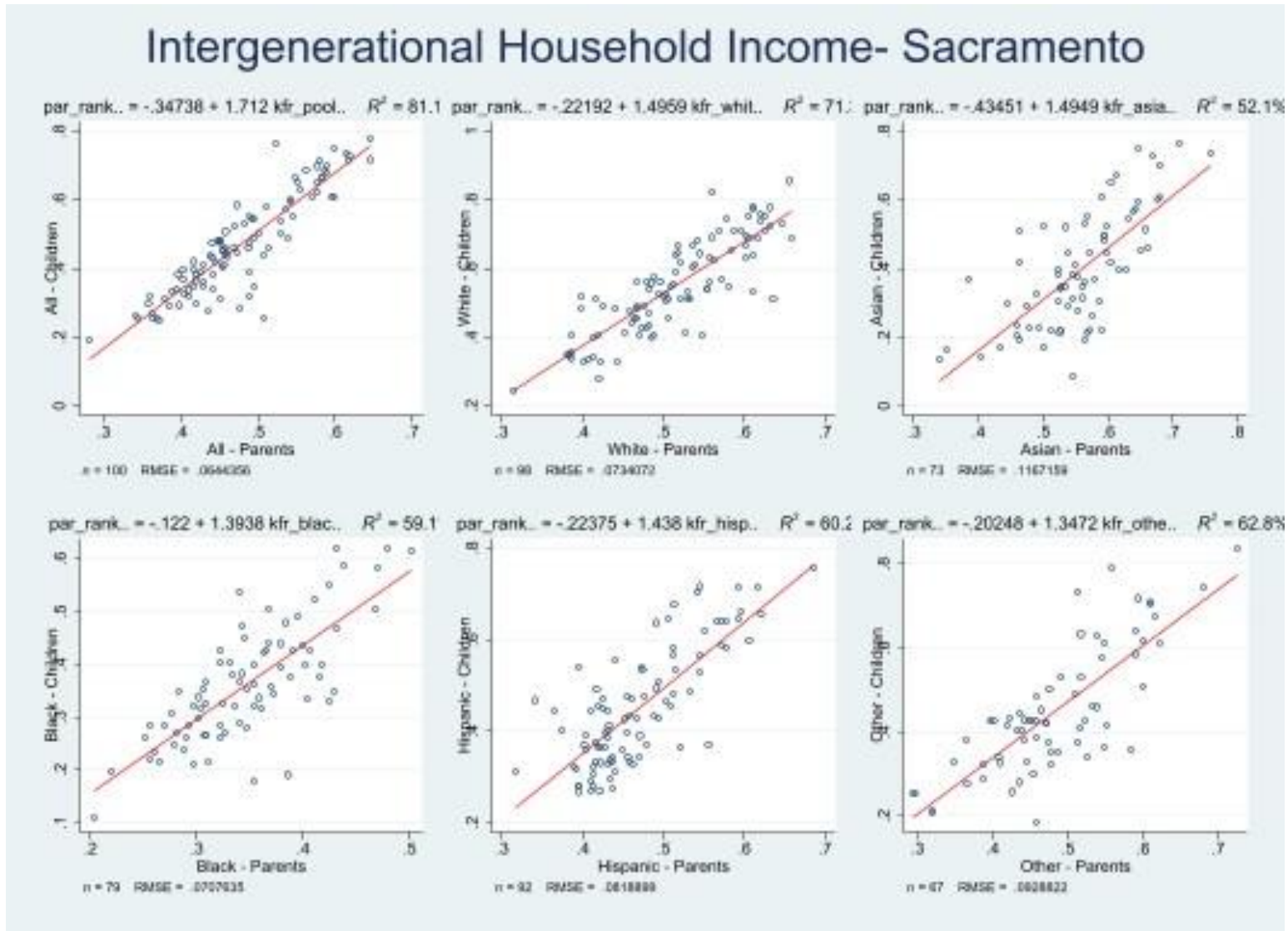
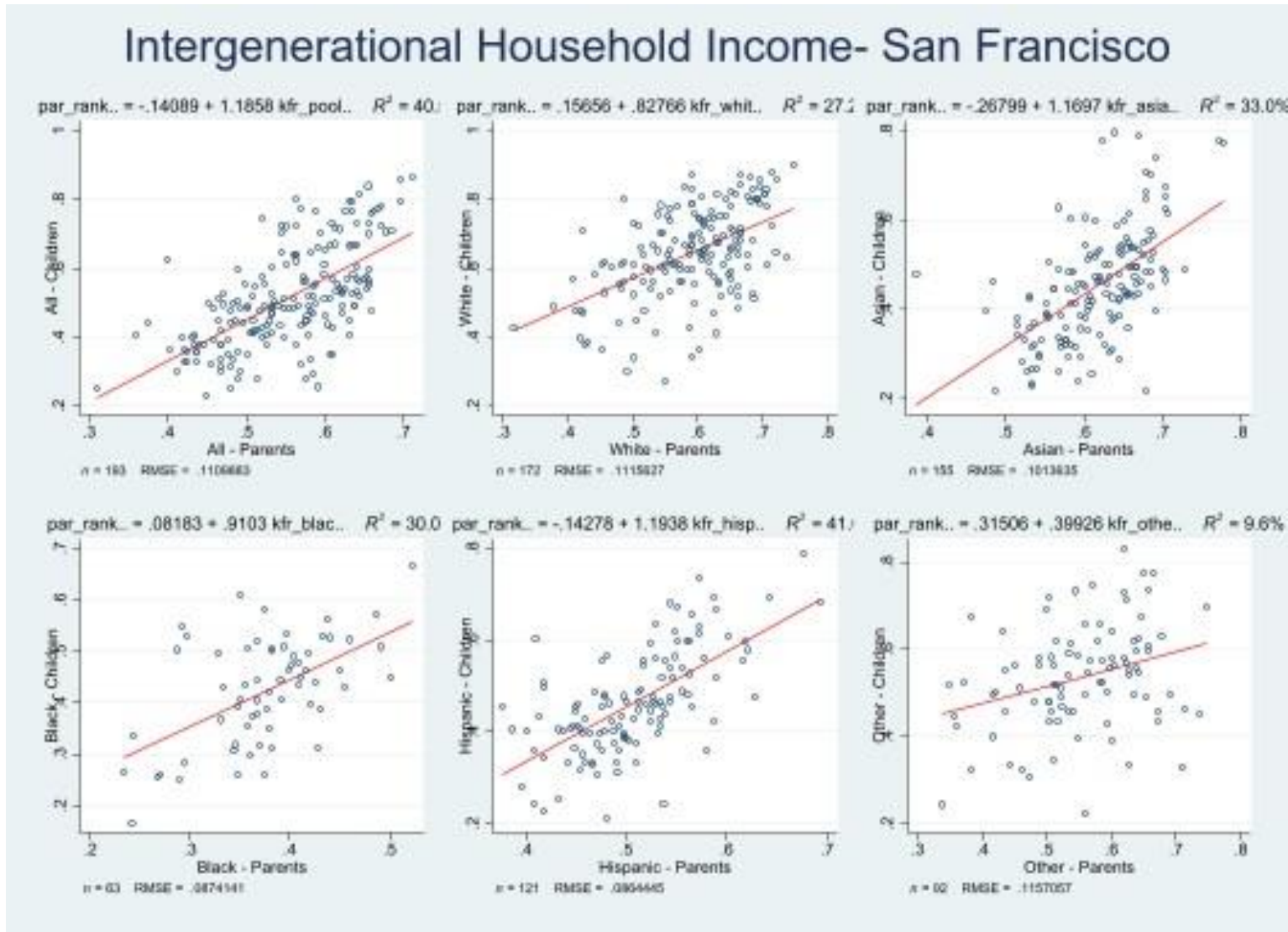


Figure 8. Household Income Elasticities in San Francisco



Part 6: Visualizing Social Mobility Across California

The cartographic analysis builds on the findings from the bivariate analysis but provides a geographic visualization of variability in the generational transmission of household income across racial and ethnic groups. Again, mobility is measured from -1 to +1, where -1 is the greatest possible downward mobility, and +1 is the greatest upward mobility. There are five categories used in the analysis: high downward mobility (-0.69 through -0.09); modest downward mobility (-0.09 through -0.03), no meaningful mobility (-0.03 through +0.02), modest upward mobility (+0.02 through +0.08), and high upward mobility (+0.08 through +0.42).

The first figure (Figure 9) in the cartographic analysis, illustrating mobility across all racial and ethnic groups in California, shows that the lower half of California's Central Valley Region experiences significant upward social mobility *for documented workers* (something excluded by the city-level analysis).

Figure 9. Social Mobility for All Children in California

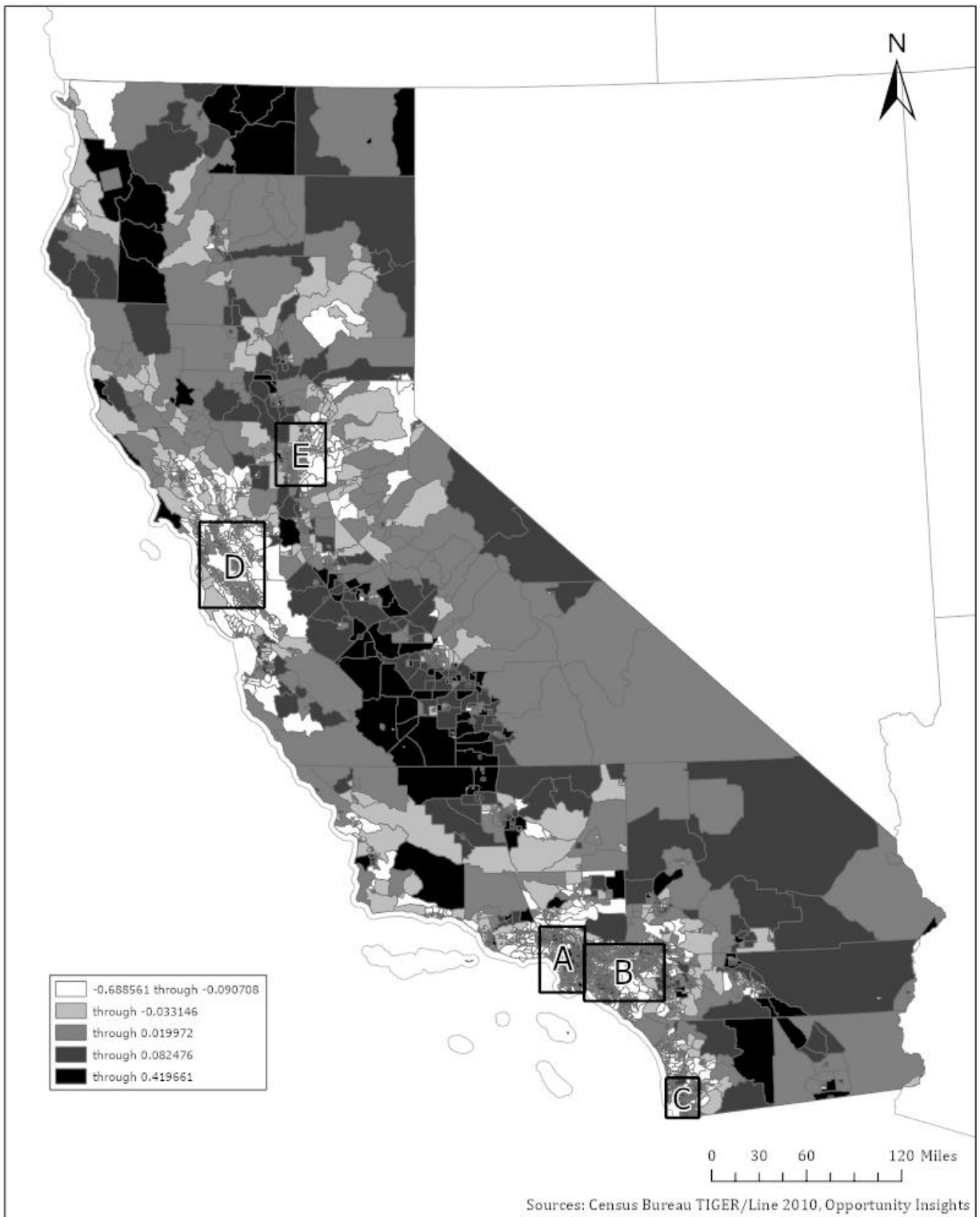


Figure 10 further illustrates that the lion's share of upward social mobility in this region is from Hispanics (though non-LPRs were excluded). Much of this upward mobility reflects the highest quintile. California's Central Valley is primarily regarded as America's breadbasket, with many of its residents being farmworkers. This analysis suggests that the offspring of the residents in this area were far more successful (in terms of household income) than were their parents.

Taken together, Figures 10 and 11 illustrate that the racial distribution of families is different across racial groups for Hispanics and Blacks (information about other racial groups can be found in the Appendix). Hispanics were represented by most census tracts in California (shown in Figure 11 by darker color), reflecting that most had modest or high upward mobility. Blacks, in contrast, are not represented by most census tracts (see Figure 10). Conversely, they are mostly confined to urban tracts, with modest or high downward mobility common where they are represented.

The visualization of most of California's metro areas is difficult to observe because the land areas of those census tracts are far smaller than the land areas of the rural tracts. For this reason, the additional metropolitan areas are further scrutinized with more detailed maps (A: Western Los Angeles County, B: Eastern Los Angeles County and part of Orange County, C: Metro San Diego, D: Metro San Francisco, and E: Metro Sacramento).

Figure 10. Mobility for Blacks in California

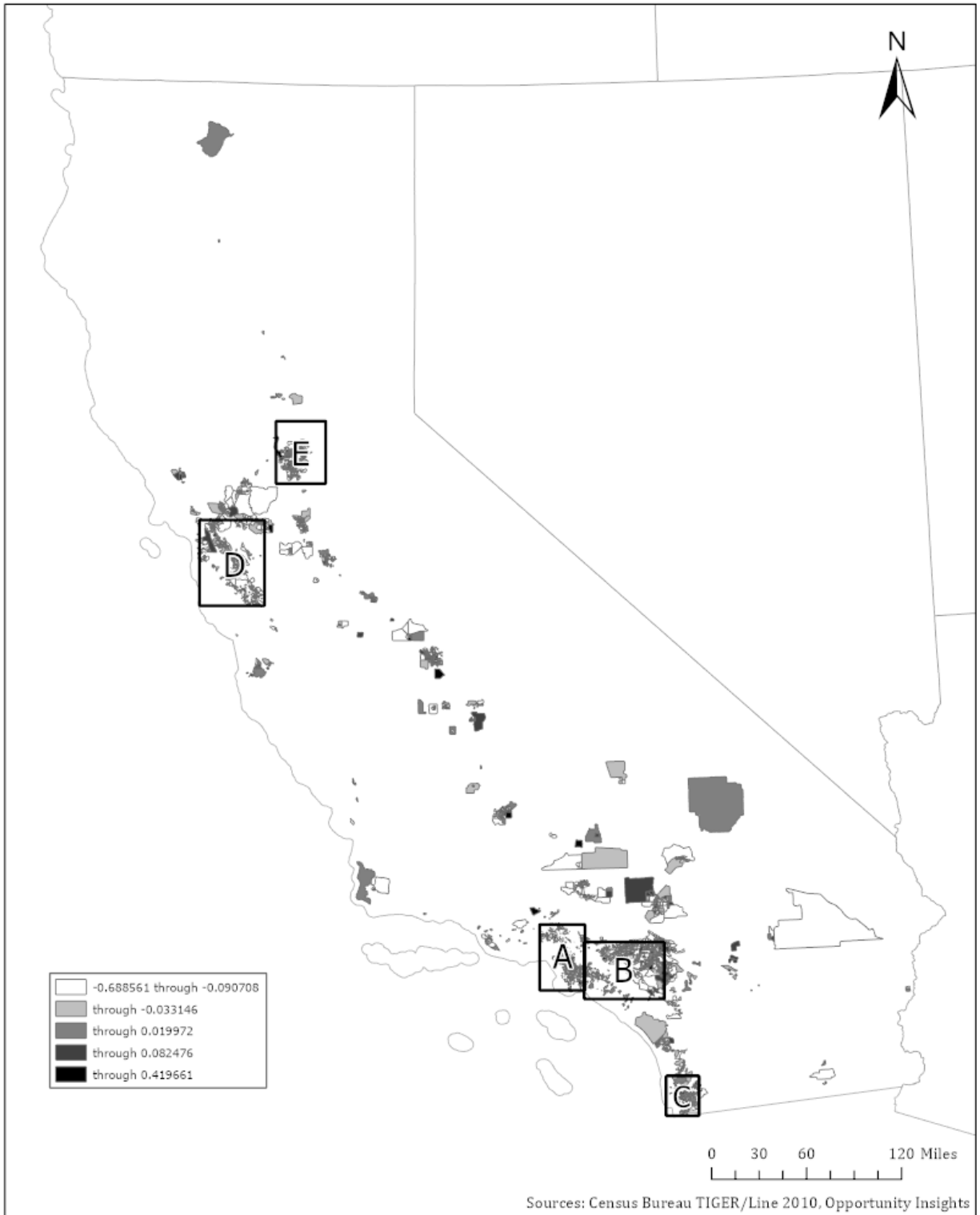
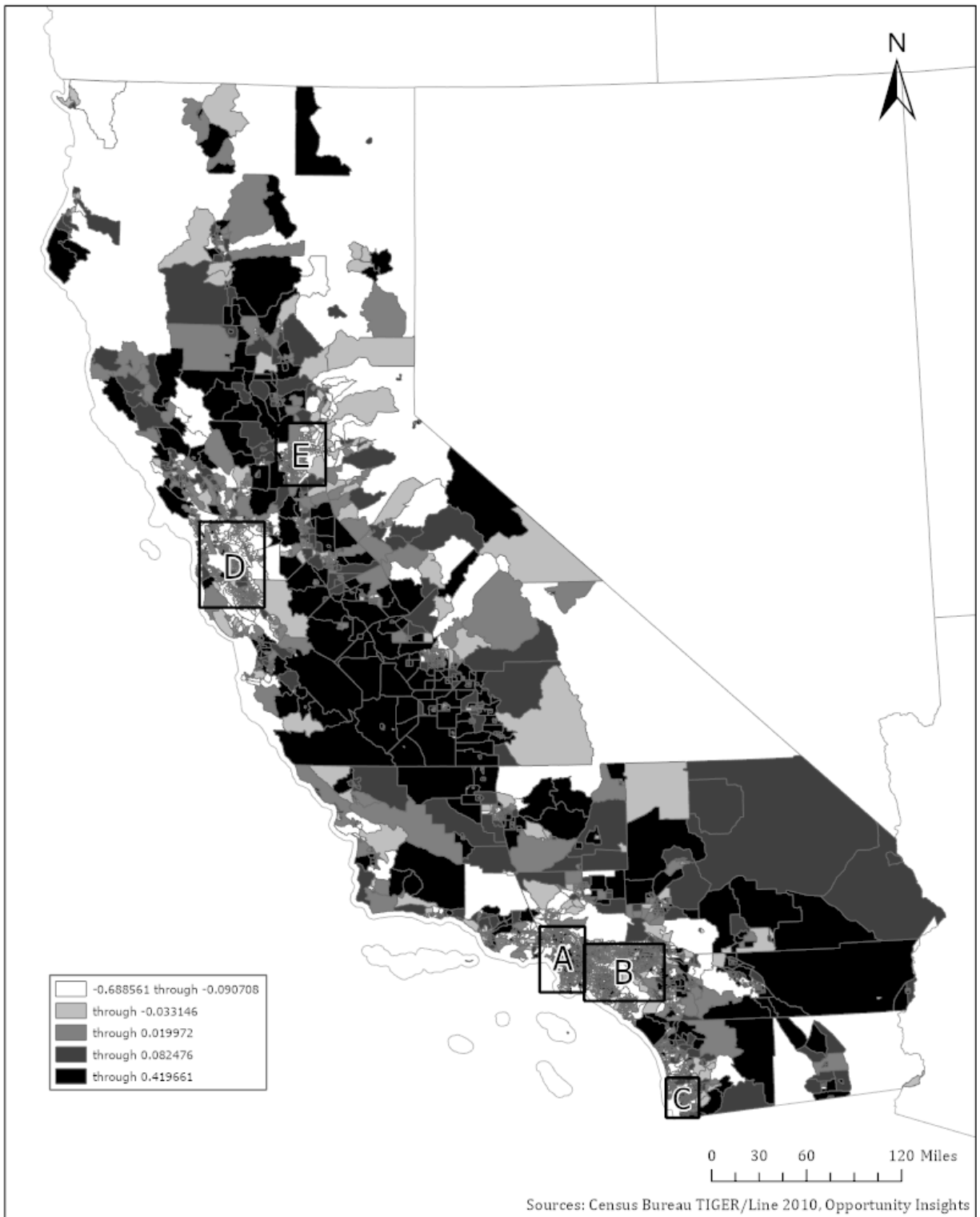


Figure 11. Mobility for Hispanics in California



Part 7: Visualizing Mobility in Los Angeles

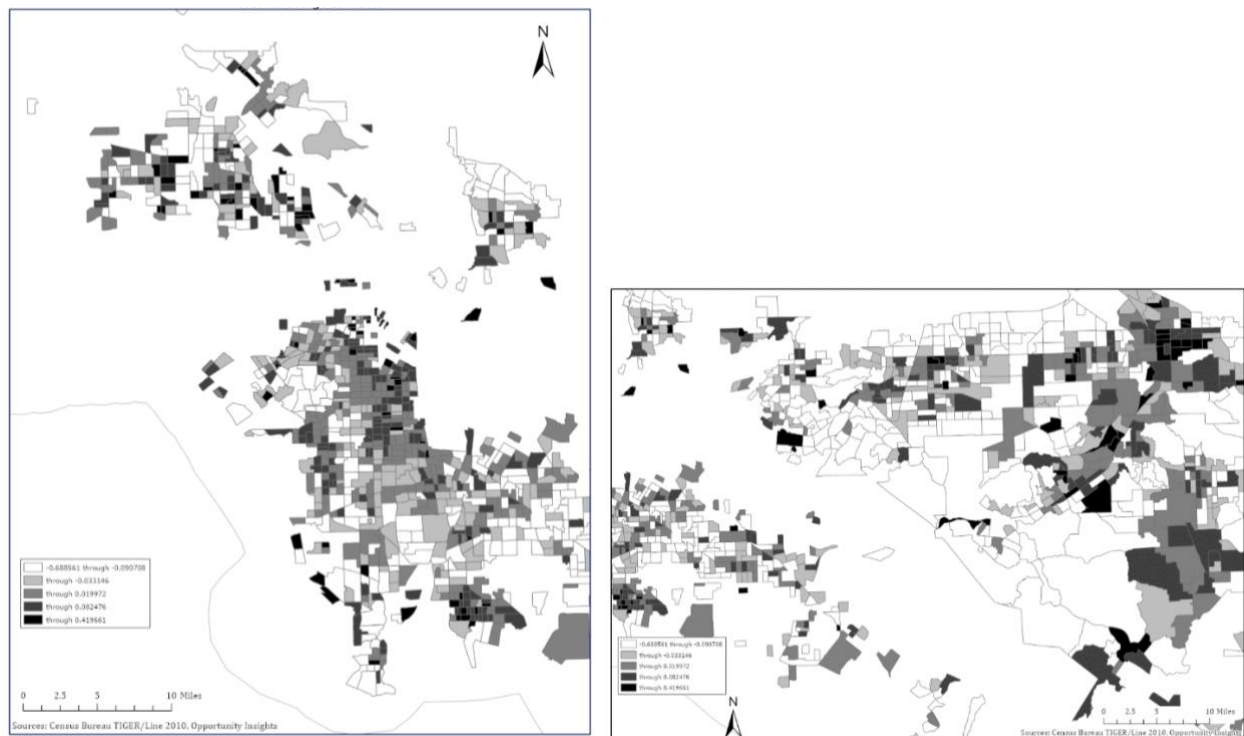
Looking at Los Angeles specifically, the cartographic analysis generally shows that when racial and ethnic groups are pooled together there is downward social mobility in the coastal regions (e.g., Malibu), southern Los Angeles (Rancho Palos Verdes), and the larger, more rural tracts near Cerritos, Fullerton, and Anaheim in northwestern Orange County (see Figure 12). These areas are known to be more affluent areas of Los Angeles. Children in these wealthy communities had little room to improve relative to their parents' household income percentiles. By contrast, most of the upward social mobility that occurred is further east and inland, closer to downtown Los Angeles, Glendale, and the inner Valley.

Figure 12. Mobility for West (left) & East Los Angeles (right)



In Los Angeles, Blacks are primarily located in South Central, east of East L.A., and some parts of the Valley (see Figure 13). The mobility story in Los Angeles is stark for Black families: there was notable downward social mobility in the western and eastern L.A. metropolitan areas. The results here strongly affirm the low value of the regression coefficient found in the bivariate analysis earlier in this study. There is slight upward social mobility for Blacks, but it pales in comparison to the upward mobility of Hispanics and Asians (see Figures 14 and 15).

Figure 13. Mobility for Blacks in West & East Los Angeles



Hispanics in Los Angeles experience significant upward social mobility in western Los Angeles, the Valley, and South Central, but not as much in eastern metropolitan Los Angeles. The mobility story of East L.A. is mixed: upward and downward, and no mobility occurred.

Hispanics in Los Angeles experienced significant upward social mobility in western L.A., the Valley, and South Central, but not as much in eastern metropolitan L.A. where their mobility story is

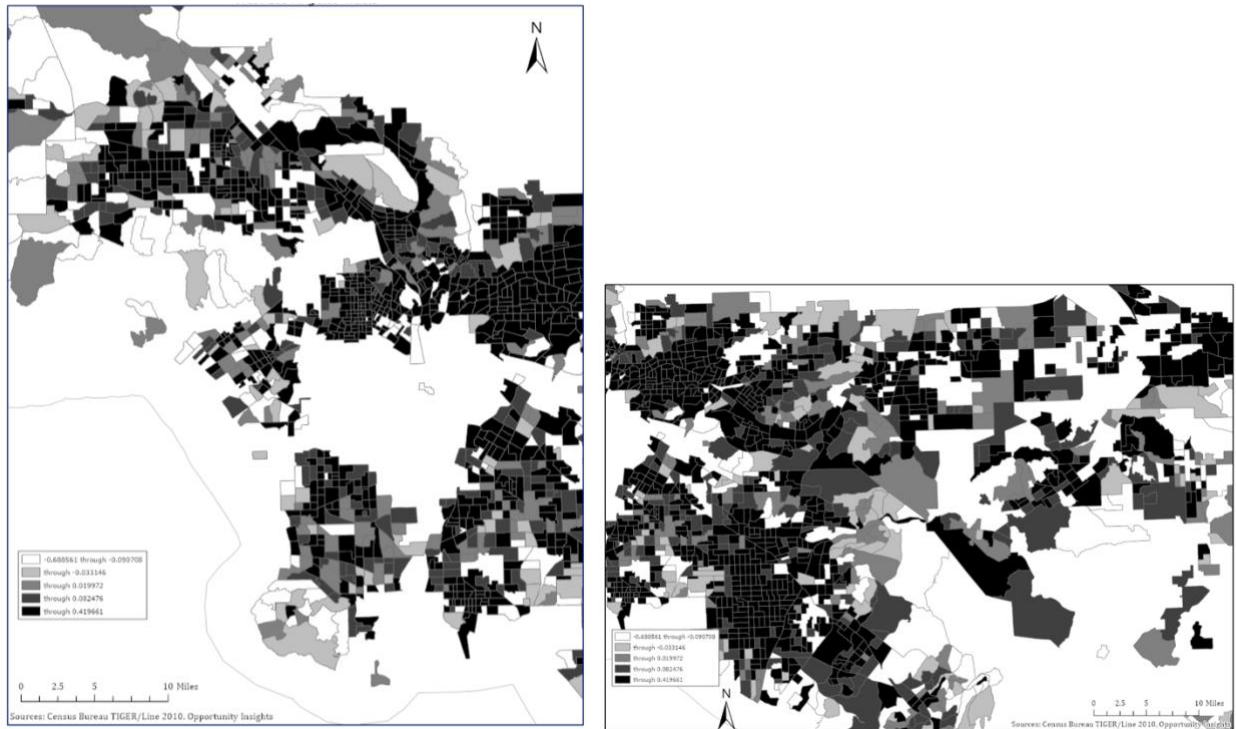
mixed: upward, downward, and no mobility occurred in relatively equal measure. Figure 14 illustrates these trends.

Figure 14. Mobility for Hispanics in West & East Los Angeles



The map of the Asians shows the same hollowed-out core in South Central where Hispanics and/or Blacks reside, but there appears to be nearly ubiquitous upward social mobility in the western and eastern L.A. metropolitan areas when Asian children reside in those tracts. Also, as suggested by the bivariate analysis, there are many tracts in which Asians are living amongst Blacks and Hispanics. As illustrated in Figure 15, when Asians are on the periphery of historically Black and Hispanic neighborhoods Asians experience upward social mobility.

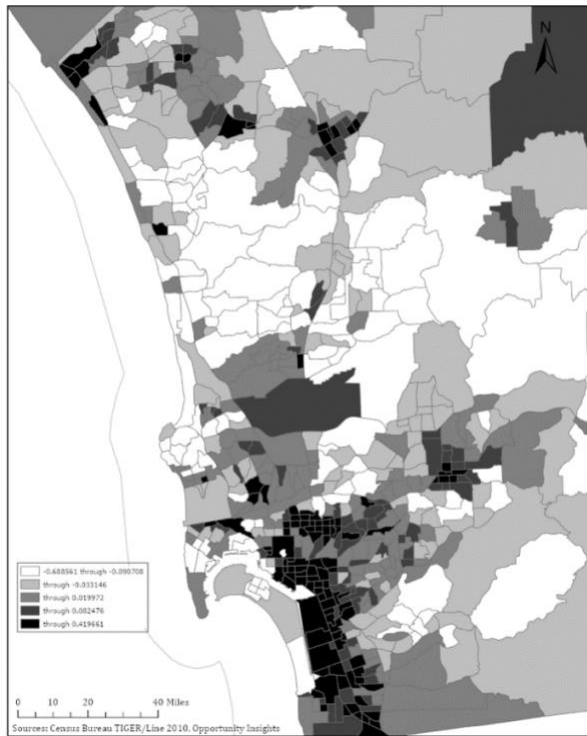
Figure 15. Mobility for Asians in West & East Los Angeles



Part 8: Visualizing Social Mobility in San Diego

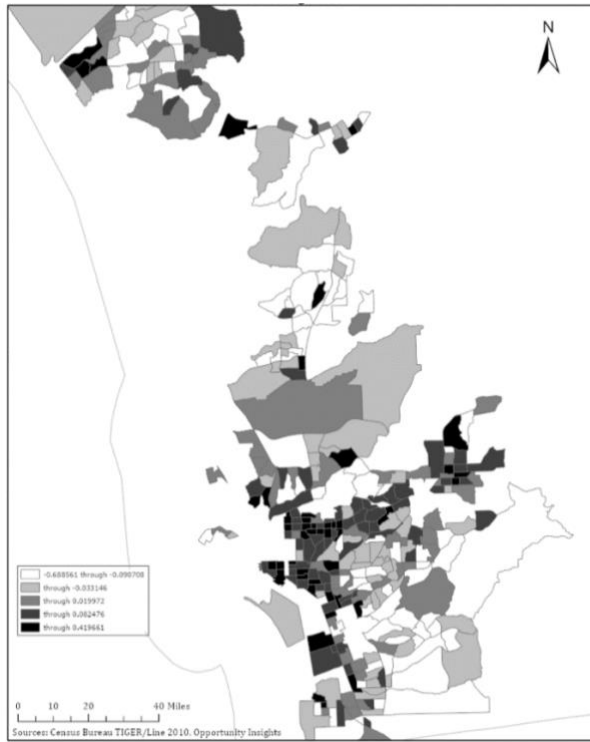
The San Diego maps generally reflect a downward trend in social mobility in the more extensive, more agriculturally based tracts near Rancho Santa Fe, Poway, and Rosemont in north-central and north-inland San Diego County. The corridor nestled between Interstate 5 and Interstate 805, heading south towards the Mexican border from downtown San Deigo, experienced nothing but upward social mobility.

Figure 16. Mobility for San Diego



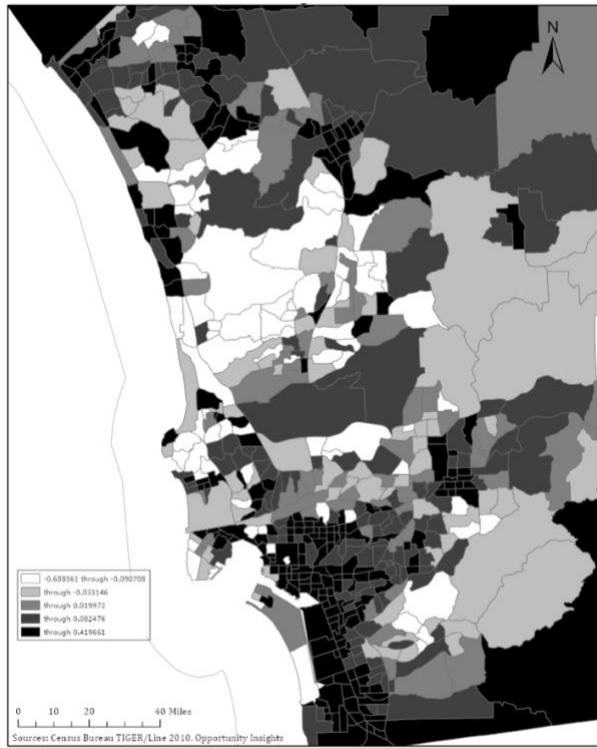
As seen in Figure 17, Blacks are found in urbanized centers in San Diego and decidedly not near the Pacific Coast. The Black population lacks noteworthy and widespread upward social mobility as compared to the other racial groups. Nevertheless, the Black population in San Diego experienced more upward mobility than in Los Angeles.

Figure 17. Mobility for Blacks in San Diego



In contrast to Blacks, LPR Hispanics present with significant upward social mobility across nearly all of San Diego, most notably concentrated in the central and southern regions (see Figure 18). The prominent Hispanic population seen here aligns with the spatial context of San Diego which is located adjacent to California’s border with Mexico.

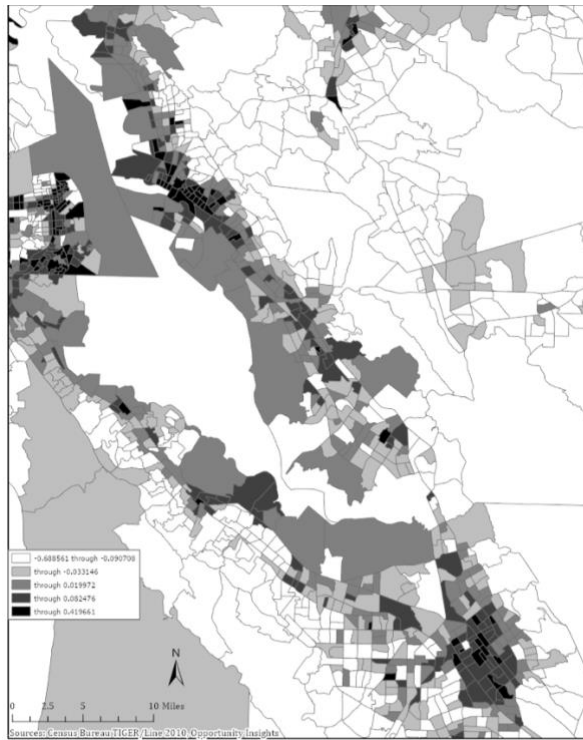
Figure 18. Mobility for Hispanics in San Diego



Part 9: Visualizing Mobility in San Francisco

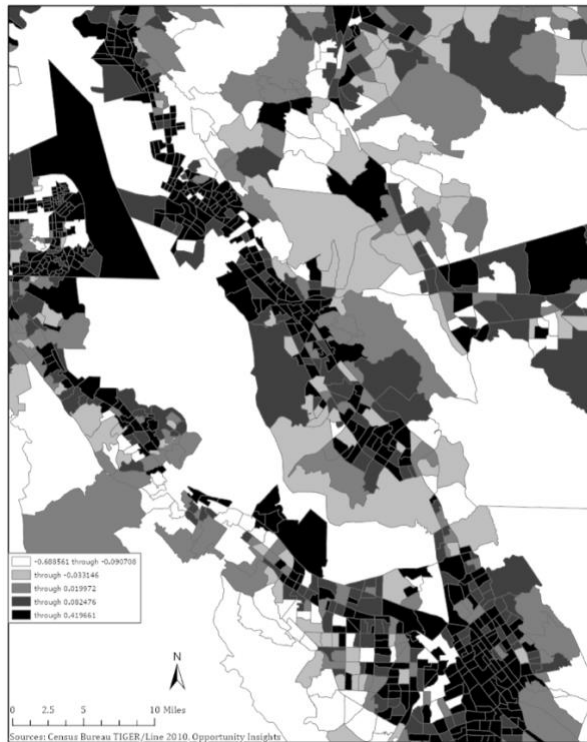
Overall, the cartographic analysis shows a general downward trend in social mobility throughout the San Francisco Bay Area in landlocked communities with small concentrations of upward mobility along the Bay's coast in communities such as San Francisco, San Jose, San Rafael, Oakland, and Fremont. Figure 19 illustrates:

Figure 19. Mobility in San Francisco



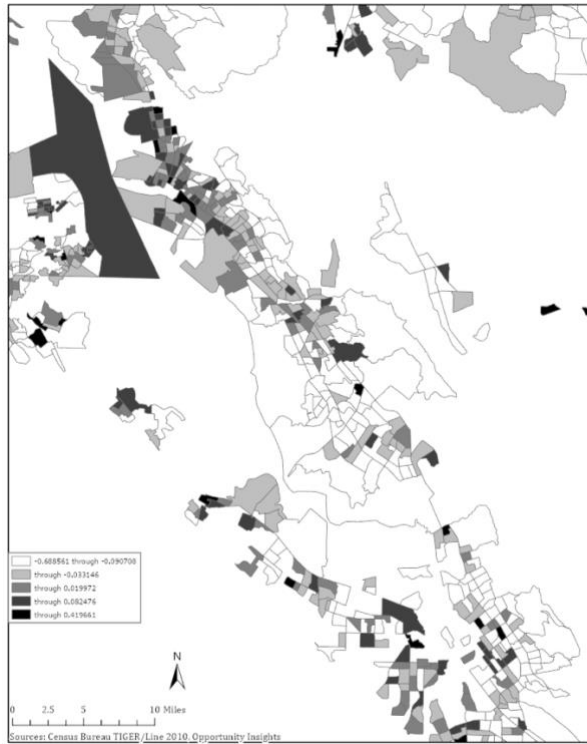
As seen in Figure 20, Asians experienced extensive upward social mobility across the Bay Area, most prominently surrounding the coast and tightly packed in urban tracts. This is particularly interesting as it reiterates the strong presence of Asian communities throughout the region. The Asian population also shows high rates of upward mobility extending outward from the Bay and into more extensive tracts in Sonoma and Contra Costa. This suggests that the regression coefficient's value for Asians would be much higher if that analysis included this area in addition to San Francisco proper.

Figure 20. Mobility for Asians in San Francisco



The Black population (Figure 21) is the only group that reflects large gaps in data for the San Francisco metro area. Few subareas reflect upward social mobility; most tracts show Blacks with significant downward mobility. This pattern was also underscored in the bivariate regressions which concluded that for each one-percentage point increase in the household income of Blacks parents in San Francisco that of children only increased by 0.91% (See Figure 8).

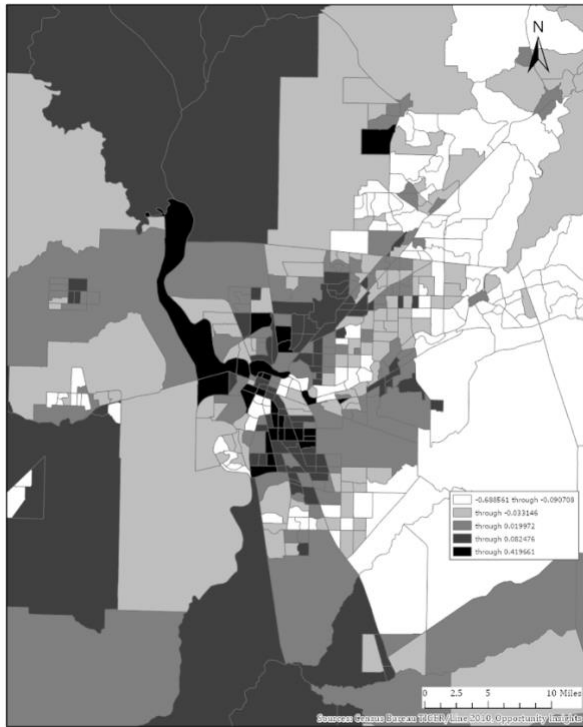
Figure 21. Mobility for Blacks in San Francisco



Part 10: Visualizing Mobility in Sacramento

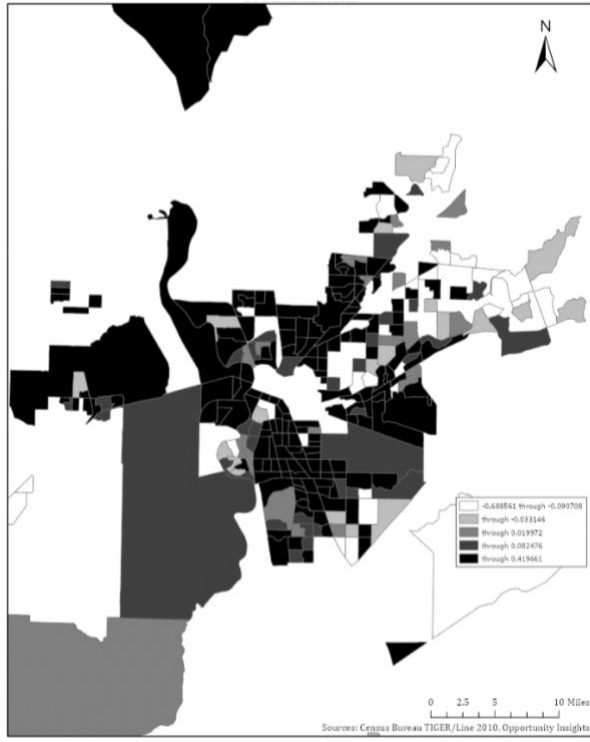
The cartographic analysis for Sacramento generally shows a balance in upward and downward social mobility throughout the metropolitan area. Upward mobility is more prevalent in central Sacramento and west of its urban center. Albeit less than in other metro areas, downward social mobility is still relatively notable in tracts to the east near Rancho Cordova and Citrus Heights (see Figure 22).

Figure 22. Mobility in Sacramento



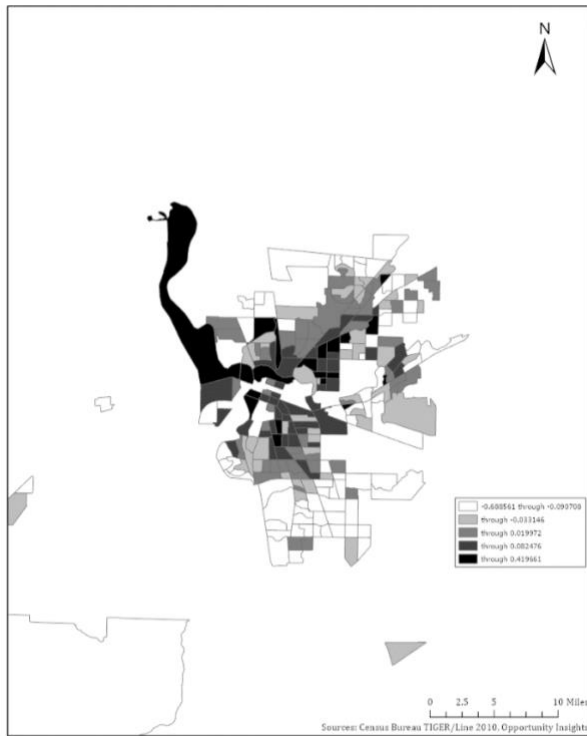
The tracts of downtown Sacramento reflect the most disparity in social mobility between racial and ethnic groups. Asians experience a nearly ubiquitous concentration of upward social mobility with very little downward mobility (see Table 23). This is reflective of patterns observed in the San Francisco Bay Area. As previously mentioned, the Asian group with the largest representation in this area were Chinese families who settled in California for many generations.

Figure 23. Mobility for Asians in Sacramento



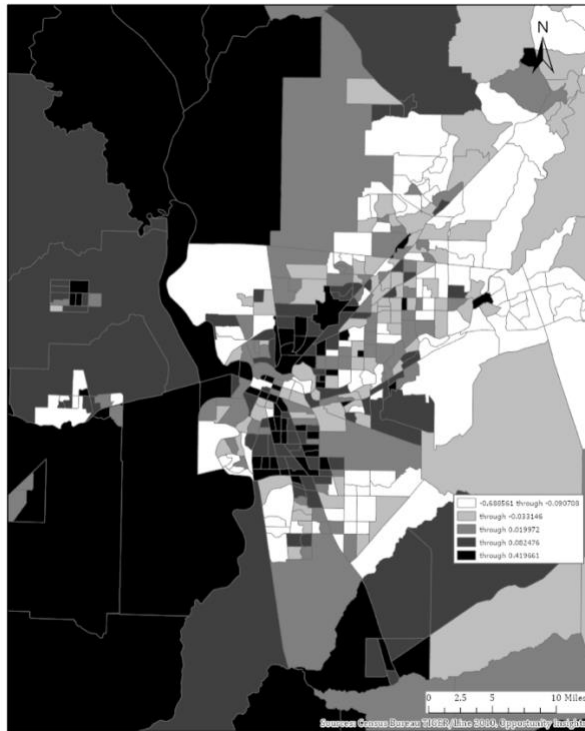
The Black population shows the least upward social mobility (see Figure 24), but this group's upward mobility is located in a cluster pattern around the inner city of Sacramento. Blacks experience downward mobility in the more suburban areas of the city.

Figure 24. Mobility for Blacks in Sacramento



Unlike Asians and Blacks, Hispanics are geographically represented everywhere in the inner city of Sacramento (see Figure 25). LPR Hispanics, like Asians in the region, experience notable upward social mobility in the urban center and into more extensive rural tracts to the west. Notably, Hispanics in this area support another prominent agricultural community. According to the United States Geological Survey (2024), the Sacramento area comprises less than 1% of U.S. farmland and produces 8% of the agricultural output in the U.S.

Figure 25. Mobility for Hispanics in Sacramento



Discussion & Conclusion

Perhaps the most illuminating finding in this report is that a stark difference in mobility is so heavily tied to a parent’s legal status. The Opportunity Insights data suggest that upward social mobility is likely when Hispanics have legal status. The IPUMs data, which emphasize household mobility in California across different cross-sections in time for people aged 27 to 31, suggest that non-LPRs between the ages of 31 and 37 have experienced a downward income trajectory over time in California. It is possible that non-LPR Hispanics could have even greater mobility, no mobility, or a decline (though unlikely) in mobility were it possible to include them in the Opportunity Insights data. However, the immigration policy implication from this study is clear: when Hispanics achieve legal status, it can greatly improve the life trajectory of their children’s lives.

When looking at all races across all metro areas, there is identifiable upward social mobility concentrated in the compacted tracts of each city’s inner urban region. Besides this similarity, each

area has a distinguishable pattern, reiterating that racial and ethnic experiences in California are regional. While the metropolitan areas exhibit similar patterns across racial and ethnic groups, there are distinctive differences showing that these observed processes are very regionalized. Hispanic mobility for LPRs was ubiquitously upward in every area. Black mobility was generally downward across the state.

Looking at the entirety of California allows us to see that the pecking order has shifted across generations and how this has affected the geography of opportunity. Racial hierarchy and the shifting of the color line, specifically in the context of a diverse state like California, can help explain the patterns observed in these maps. Race positionality and its role in class hierarchy is highly relatable to these maps as we look at the national income distribution across generations.

White Downward Mobility is Largely a Product of Regression to the Mean

Consistently, throughout all metropolitan areas, there is a prominent downward trend in social mobility for Whites (this is most likely explained by regression to the mean). Parents' household income percentiles were larger for this group than for any other, so children whose parents were at the very high end of the distribution had little to no room to improve their parents' relative rank in household income. However, these data also show that the leveling off in White generational mobility coincides with the advancement of other racial and ethnic groups. Ultimately, this does not take away from the fact that a disproportional number of opportunities and resources are still allocated toward Whites as their incomes and levels of educational attainment have continued to rise over time.

Asian Ascendance in California

Asians, too, have overtaken Whites in terms of household income. The Asian racial and ethnic group exhibits prominent upward mobility across all metro areas, but proportionally, their social mobility is highest and most densely concentrated in Sacramento where many generations of

Chinese have made their home. However, there are also pockets in which upward social mobility for Asians has not been as consistent: Asians in Los Angeles came from a variety of Asian backgrounds, migrated to the U.S. at various timepoints, and were more racially integrated. For these reasons, the linear relationship between parents' and children's household incomes is not as strong in Los Angeles as elsewhere in California. This specific shift in racial hierarchy gives some credence to the "model minority myth" (Tuan, 1998). The additional analysis of LPRs and non-LPRs also revealed that all Asian migrants to California, particularly non-LPRs, were more highly educated and had higher household incomes than their peers from other racial and ethnic backgrounds. During the period studied, Asian children also became the beneficiaries of California's state ban on affirmative action (Bleemer, 2020; Gandara, 2012; Kidder & Gándara, 2016; Mickey-Pabello, 2023). However, it is also vital to recognize that even as certain non-White minorities shift in class, societal power allocations, as issues of racial prejudice and overt racism, remain (Gover, Harper, & Langton, 2020; Museus & Kiang, 2009).

The Plight of California's Black Population

Despite advances in equity over generations, the cartographic analysis reflects a tell-tale pattern of injustices experienced by the Black population, almost regardless of location. Each metro area's unique geographic deviation illustrates only a few pockets of upward social mobility. These maps can be pieced together to visualize the effects of racial societal structures such as institutionalized racism and the void of opportunities present in (predominantly Black) inner-city neighborhoods of Color. The racial identity of Blacks can be closely tied to their economic identity, especially in urban metropolitan areas like those visualized here (Fischer, 2003; Tigges, Browne, & Green, 1998). Across the state, Blacks have suffered due to the implementation of strict punitive measures targeting them specifically including racial profiling, the three strikes law, and the "war on drugs" (Gregory, 1997; Harris, 2019; Provine, 2008). Blacks were also subject to bans on state-level

affirmative action during a time in which the children in this study would have applied and gained admissions to California colleges and universities (Bleemer, 2020; Gandara, 2012; Kidder & Gándara, 2016; Mickey-Pabello, 2023). Sacramento and parts of the San Diego metro area deviate from this trend with slightly more upward social mobility; however, there are relatively few tracts with a substantial presence of Black residents. There was downward mobility in cities like Los Angeles and San Francisco, where Blacks have encountered overt racism, redlining, and police discrimination, but upward mobility in Sacramento and San Diego, where the history of race relations has not been as tense (Bloch & Phillips, 2022). San Francisco was the locus of 1966's Hunter's Point Riot and the 1973-74 Zebra Murders (wherein Blacks killed Whites), which in response triggered police discrimination and brutality against Blacks (Howard, 2020). Los Angeles was in the national spotlight in the early 1990s for the Rodney King beating and racial tensions between Blacks and Koreans. Both of these situations led to racial riots in L.A. in 1992. The downward mobility of Blacks has also manifested itself in terms of school segregation and vulnerability to neighborhood gentrification (Mordechay, Mickey-Pabello, & Ayscue, 2023).

Is the Increased Mobility of Hispanics Accurate?

Hispanics characterize the most notable display of upward social mobility, but only for LPRs. Furthermore, these parents often had a lower percentile rank in the national household income distribution, meaning that the upward mobility of their children is partially explained by regression to the mean. The upward mobility for non-LPR Hispanics was the highest in every metro area except San Francisco, where Asians displayed greater mobility. Additionally, there were very high levels of upward mobility in rural communities that were well-known for their agricultural prowess. This trend aligns with California's influx of Hispanic immigrants and geographic proximity to Mexico, whose immigrants are most skilled in the labor required for agriculture.

It is important to underscore that the results for the Hispanic racial and ethnic groups be regarded carefully as this data does not capture the entire Hispanic population. Due to California receiving many Hispanic immigrants during this period, many of which were non-LPRs, this data only indicates the portion of the Hispanic population that are LPRs. The comparison of the Opportunity Insights data to the IPUMS data based on the Census and ACS indicates that the Hispanic population was substantially different in California when non-LPRs were excluded from the analysis. Thus, this paper contends that policy recommendations for Hispanics using the Opportunity Insights data should be treated with skepticism – mainly if those studies do not clearly state that they only describe a particular segment of the Hispanic population. This critique is most relevant in states like California where there are high numbers of non-LPRs.

Data Recommendations

The major shortcoming of this study, with the Opportunity Insights data, is its inability to describe the Hispanic population accurately. This is because so many Hispanics in California are non-LPRs thus the Opportunity Insights data cannot be used to identify them. As previously indicated, this was not some negligent oversight by Opportunity Insights. The major limitation comes from the timing of the study: the children in this study were born between 1978 and 1983. The Immigration Reform and Control Act of 1986 required non-U.S. residents to have been living there before 1982. Because the legal edits procedure used to estimate the LPR and non-LPR population in the U.S. qualifies any person residing in the U.S. before 1980 as an LPR, all of the study's parents were considered LPRs.

To best capture the intergenerational mobility of non-LPRs, the dataset needs to take into consideration the age at which a non-LPR arrived and how old they were when they had a child, then allow enough time for the child to reach their parents age for comparison. For example, if a one-year-old child immigrated to the U.S. in 1983 as a non-LPR, that child would not become 31

years old until 2014 and 37 years old until 2021. If they had a child during that time, the child would not reach the age of 31 until 2045 through 2052. This standard would require that the children mature into adulthood long enough so that meaningful life-course events – like completing a terminal degree, getting married, and having children – have reasonable time to occur. There have already been some attempts to estimate the transmission of educational attainment for non-LPRs in Los Angeles, but our study population was not robust enough; it was skewed to study parents who migrated to the U.S. when they were older and had U.S.-born children when the parents were younger (Bean, Brown, Bachmeier, Brown, & Bachmeier, 2015).

Policy Recommendations

Federal-Level

The issue of immigration is currently on the political chopping block. It is simultaneously touted as an immediate need and a lynchpin in the upcoming 2024 Presidential Election, with particular focus on the Hispanic immigrant population. There are several dimensions for federal immigration reform: giving non-LPRs legal status, increasing border security, reorganizing the visa process to better respond to labor market needs, redefining refugee qualifications, focusing on family reunification, and providing support to help immigrants integrate into American society. This report meets at the intersection of providing non-LPRs with legal status and encouraging their integration into American society. We found that children of Hispanic LPRs became decidedly upwardly mobile when their parents had legal status, strongly discrediting the argument that poor and uneducated immigrants will create generations of poor and uneducated offspring.

Ultimately, the best policy for federal immigration reform would be one that balances the interests of different stakeholders, upholds the principles of fairness and justice, and reflects the values of a diverse and inclusive society. It would also require bipartisan cooperation, compromise, and a commitment to finding practical solutions to complex immigration challenges.

State-Level

Considering this paper’s findings, there are a slew of policy interventions to improve the mobility of Hispanics and Blacks in California. Many such policies have been enacted recently, but others are still being deliberated and even more need to be reconsidered.

Diversify hiring, promotions, and retention

- **Assembly Bill 979 (Enacted)** became effective in 2021. AB 979 applies to publicly held corporations with headquarters in California. It requires corporations to diversify their board of directors with directors from underrepresented communities. By the end of 2021, corporations must have at least one director from an underrepresented group. By the end of 2022, corporations with at least nine directors must have at least three directors from an underrepresented group. The corporations are not required to replace existing directors but are encouraged to hire additional directors. However, a California Superior Court judge struck down AB979 claiming it was “too broad” and “did not meet compelling interests.”
- **Senate Bill 971 (Enacted)** became effective in 2021. SB 971 requires private employers with over 100 employees to file an Employer Information Report (EEO-1) and annually submit specific employment data to California’s Department of Fair Employment and Housing (CDFEH). The information submitted will need to include the number of employees by race, ethnicity, and gender; employment category (executive, senior-level official and manager, first and mid-level officials and managers, professionals, technicians, sales workers, administrative support workers, craft workers, operatives, laborers and helpers, and service workers). The resulting data will allow the CDFEH to receive, investigate, conciliate, mediate, and prosecute.

- **Senate Bill 1162 (Enacted)** became effective in 2023. It requires that employers disclose pay data and provide pay ranges on job postings. Employers with 15 or more workers must include pay ranges on job postings. Employers with 100 or more employees will have to report median and mean hourly pay rates by each job category and each combination of race, ethnic, and sex.
- **Senate Bill 485 (Enacted)** provides a \$330 million tax incentive for film and television production. The bill was amended to require recipients to submit a diversity work plan in which the recipient would need to demonstrate that its hiring is “broadly reflective” of the state’s population. Recipients that met these goals or made a “good faith effort” to achieve them would receive an additional 4% tax credit (in addition to the 20-25% tax credit accepted).

Improvement of educational opportunities

- **Assembly Bill 520 (Died in committee)** dealt with creating the California Teacher Workforce Grant Program to award \$15 million to school districts to develop and implement programs to diversify their teaching faculty. The Bill aimed to close the gap between the 77% of Black, Hispanic, Asian, and Pacific Islander students of Color and the 40% of teachers of Color. The Bill passed in the Assembly, but a hearing was canceled in the Senate at the author’s request in August of 2021.
- **Assembly Bill 2617 (Died in committee)** awards \$500 million for dual enrollment (i.e., when students are enrolled simultaneously in high school and college). AB2617 intends to create more college and career pathways between K-12 schools and California Community Colleges. It was anticipated that this Bill would help to considerably close the college access gaps that negatively impact Black, Native American, and Hispanic

students. The Bill has passed the Assembly but was held under submission (i.e., the committee wants to work on or discuss the bill further).

- **Senate Bill 990 (Enacted)** allows formerly incarcerated individuals out on parole to access higher education and vocational training. It enables them to live, work, and/or pursue education in a county that hosts a post-secondary or vocational training program rather than one within their county of last legal residence. This is of particular importance to the Black male population who comprise about 13% of the male population but are disproportionately incarcerated at 35% (Hinton, Henderson, & Reed, 2018).
- **Assembly Bill 2774 (Died in chamber)** would allow students of Color to factor into additional funding for K-12 schools. Although there are gross inequities for Black students within California's K-12 system, California's Local Control Funding Formula does not consider racial and ethnic inequities. The Bill has passed the Assembly, was read in the Senate, and sent back to the Assembly with amendments pending.
- **Assembly Bill 2832 (Enacted)** requires that the California Department of Social Services and the California Department of Education (working with the Early Childhood Policy Council) to utilize racial and economic equity maps in conjunction with poverty levels to determine need-based areas, then focus on those areas. The state would then provide funding to these areas. The Bill passed the Assembly and the Senate and was signed into law by Governor Newsom on September 28, 2022.
- **Assembly Bill 2806 (Enacted)** proposes to ban preschool suspensions and expulsions. This practice particularly disproportionately impacts Black and Hispanic boys. The Bill was given Governor Newsom's signature.

- **Assembly Bill 1868 (Enacted)** requires the California Department of Education to disaggregate English Learner data to better understand students at risk of becoming “Long-Term English Learners,” and how to serve these groups best. The Bill has passed the Assembly and the Senate, and is awaiting the Governor’s signature.
- In November 2020, California had a ballot initiative titled **Proposition 16 (Did not pass)**, which sought to repeal Proposition 209, the proposition which banned affirmative action in California. Proposition 209 would have allowed the consideration of race as a factor in public employment, education, and contracting decisions. Its failure to pass has made further initiatives such as AB 797 difficult to protect from litigation, eventually ruling them unconstitutional. If California truly wishes to broadly provide a pathway to upward social mobility for Blacks and Hispanics, this is its greatest singular obstacle because it impacts both education and employment.

Provide pathways to citizenship and the formal economy

- **Senate Bill 960** was signed into law by Governor Newsom on September 24, 2022. It removes the state’s citizen requirement to work as a peace officer.
- **Assembly Bill 953** became effective in 2016. It requires that California law agencies report on citizen complaints, particularly those that allege racial or identity profiling.
- **Assembly Bill 1766** was signed into law by the Governor on September 24, 2022. It allows all undocumented immigrants the opportunity to obtain a state I.D. card. The legislation will aid undocumented workers in obtaining work, opening bank accounts, accessing healthcare, securing housing, and obtaining benefits. The state is expected to begin to provide these I.D.s by 2024.

- In 2018, California’s **Fair Employment and Housing** Council clarified that discrimination based on immigration status is prohibited under California’s Fair Employment and Housing Act.
- **Assembly Bill 540** allows undocumented students to pay in-state tuition and fees. It was signed into law in 2001.
- **Senate Bill 1159** (signed into law in 2014) allows undocumented residents to apply for professional licenses if they can provide Individual Taxpayer Identification Numbers instead of Social Security Numbers.
- **Assembly Bill 2183** allows farmworkers to unionize by mail and vote in union elections by mail. Governor Newsome signed AB2183 into law despite his public disapproval of the Bill.

Passing race-conscious legislation in California is crucial for fostering equity and dismantling systemic barriers that perpetuate racial disparities. Such legislation acknowledges the historical and ongoing injustices faced by marginalized communities, addressing disparities in education, employment, healthcare, and housing. By implementing policies that take race into account, California can actively work towards creating a more just and inclusive society, where opportunities are accessible to all regardless of race or ethnicity. Additionally, race-conscious legislation can serve as a model for other states, sparking broader conversations and actions towards systemic change on a national level.

References

- U. S. G. S. (2024). California's Central Valley: Sacramento Valley. Retrieved from <https://ca.water.usgs.gov/projects/central-valley/sacramento-valley.html>
- Alba, R. (2020). *The Great Demographic Illusion*. Princeton University Press.
- Alesia Perez, C., Cuellar Mejia, M., & Johnson, H. (2023). *Immigrants in California*. Retrieved from <https://www.ppic.org/wp-content/uploads/jtf-immigrants-in-california.pdf>
- Bean, F. D., Brown, S. K., Bachmeier, J. D., Brown, S., & Bachmeier, J. (2015). *Parents without papers: The progress and pitfalls of Mexican American integration*. Russell Sage Foundation.
- Becker, G. S., & Tomes, N. (1979). An equilibrium theory of the distribution of income and intergenerational mobility. *Journal of Political Economy*, 87(6), 1153-1189.
- Becker, G. S., & Tomes, N. (1986). Human capital and the rise and fall of families. *Journal of Labor Economics*, 4(3, Part 2), S1-S39.
- Bergman, P., Chetty, R., DeLuca, S., Hendren, N., Katz, L. F., & Palmer, C. (2024). *Creating moves to opportunity: Experimental evidence on barriers to neighborhood choice* (0898-2937). *American Economic Review*, 114(5), 1281-1337.
- Bleemer, Z. (2020). Affirmative Action, Mismatch, and Economic Mobility After California's Proposition 209. *Berkeley Center for Studies in Higher Education Research & Occasional Paper Series*, CSHE.10.2020.
- Bloch, S., & Phillips, S. A. (2022). Mapping and making gangland: A legacy of redlining and enjoining gang neighbourhoods in Los Angeles. *Urban studies*, 59(4), 750-770.
- Bloome, D. (2015). Income inequality and intergenerational income mobility in the United States. *Social Forces*, 93(3), 1047-1080.
- Borjas, G. J. (1993). The intergenerational mobility of immigrants. *Journal of Labor Economics*, 11(1, Part 1), 113-135.
- Borjas, G. J. (2017). The labor supply of undocumented immigrants. *Labour Economics*, 46, 1-13.
- Cain, B., & Hehmeyer, P. (2023). California's Population Drain. *Stanford Institute for Economic Policy Research Policy Brief*.
- Chetty, R. (2019). Lecture 1: The Geography of Upward Mobility in America. Retrieved from <https://opportunityinsights.org/wp-content/uploads/2019/11/Lecture-01-The-Geography-of-Upward-Mobility-in-America.docx>
- Chetty, R., & Hendren, N. (2018a). The impacts of neighborhoods on intergenerational mobility I: Childhood exposure effects. *The Quarterly Journal of Economics*, 133(3), 1107-1162.

- Chetty, R., & Hendren, N. (2018b). The impacts of neighborhoods on intergenerational mobility II: County-level estimates. *The Quarterly Journal of Economics*, 133(3), 1163-1228.
- Chetty, R., Hendren, N., Jones, M. R., & Porter, S. R. (2020). Race and economic opportunity in the United States: An intergenerational perspective. *The Quarterly Journal of Economics*, 135(2), 711-783.
- Chetty, R., Hendren, N., Kline, P., & Saez, E. (2014). Where is the land of opportunity? The geography of intergenerational mobility in the United States. *The Quarterly Journal of Economics*, 129(4), 1553-1623.
- Chetty, R., Hendren, N., Kline, P., Saez, E., & Turner, N. (2014). Is the United States still a land of opportunity? Recent trends in intergenerational mobility. *American Economic Review*, 104(5), 141-147.
- Chetty, R., Looney, A., & Kroft, K. (2009). Salience and taxation: Theory and evidence. *American Economic Review*, 99(4), 1145-1177.
- Clark, G., & Cummins, N. (2015). Intergenerational wealth mobility in England, 1858–2012: surnames and social mobility. *The Economic Journal*, 125(582), 61-85.
- Colby, S., & Ortman, J. M. (2015). *Projections of the size and composition of the US population: 2014 to 2060*: US Department of Commerce, Economics and Statistics Administration. Retrieved from <https://files.eric.ed.gov/fulltext/ED578934.pdf>
- Corak, M. (2013). Income inequality, equality of opportunity, and intergenerational mobility. *Journal of Economic Perspectives*, 27(3), 79-102.
- de Souza Briggs, X., & Wilson, W. J. (2006). *The Geography of Opportunity: Race and Housing Choice in Metropolitan America*.
- Erikson, R., & Goldthorpe, J. H. (2002). Intergenerational inequality: A sociological perspective. *Journal of Economic Perspectives*, 16(3), 31-44.
- Fischer, M. J. (2003). The relative importance of income and race in determining residential outcomes in US urban areas, 1970-2000. *Urban Affairs Review*, 38(5), 669-696.
- Frey, W. H. (2018). *Diversity explosion: How new racial demographics are remaking America*: Brookings Institution Press.
- Galton, F. (1886). Regression towards mediocrity in hereditary stature. *The Journal of the Anthropological Institute of Great Britain and Ireland*, 15, 246-263.
- Gandara, P. (2012). *California: A case study in the loss of affirmative action*.
- Gover, A. R., Harper, S. B., & Langton, L. (2020). Anti-Asian hate crime during the COVID-19 pandemic: Exploring the reproduction of inequality. *American Journal of Criminal Justice*, 45(4), 647-667.

- Gray, T., & Scardamalia, R. (2012). *The Great California Exodus: A Closer Look*. Manhattan Institute for Policy Research. Retrieved from <https://manhattan.institute/article/the-great-california-exodus-a-closer-look>
- Gregory, J. F. (1997). Three strikes and they're out: African American boys and American schools' responses to misbehavior. *International Journal of Adolescence and Youth*, 7(1), 25-34.
- Harris, D. A. (2019). Racial profiling: Past, present, and future. *Criminal Justice*, 34, 10. Retrieved from https://heinonline.org/HOL/Page?handle=hein.journals/cjust34&div=65&g_sent=1&casa_token=&collection=journals
- Hayes, J., & Hill, L. (2022). Undocumented Immigrants in California. Retrieved from <https://www.ppic.org/publication/undocumented-immigrants-in-california/>
- Henrie, C. J., & Plane, D. A. (2008). Exodus from the California core: Using demographic effectiveness and migration impact measures to examine population redistribution within the western United States. *Population Research and Policy Review*, 27, 43-64.
- Hinton, E., Henderson, L., & Reed, C. (2018). An unjust burden: The disparate treatment of Black Americans in the criminal justice system. *Vera Institute of Justice*, 1-20.
- Hout, M. (2004). How inequality may affect intergenerational mobility. *Social inequality*, 969-987.
- Howard, C. (2020). *Zebra: The true account of the 179 days of terror in San Francisco*. Open Road Media.
- Huang, P., & Butts, C. T. (2023). California Exodus? A network model of population redistribution in the United States. *The Journal of Mathematical Sociology*, 1-29.
- Johnson, H. (2019). *California's Brain Gain Continues*. Retrieved from <https://www.ppic.org/blog/californias-brain-gain-continues/>
- Kain, J. H., & Persky, J. J. (1969). Alternatives to the gilded ghetto. *The Public Interest*, 14, 74.
- Kidder, W. C., & Gándara, P. (2016). Two decades after the affirmative action ban: Evaluating the University of California's race-neutral efforts.
- Langetieg, P., Payne, M., & Plumley, A. (2017). *Counting Elusive Nonfilers Using IRS Rather Than Census Data*. Paper presented at the IRS Research Bulletin; Given at the 7th Annual Joint Research Conference on Tax Administration.
- Layne, M., Wagner, D., & Rothhaas, C. (2014). Estimating record linkage false match rate for the Person Identification Validation System. *Center for Administrative Records Research and Applications Working Paper*, 2.
- Le, T. V., & Pastor, M. (2022). *California Becoming: Immigrant Integration and the Future of the Golden State*. Retrieved from <https://california100.org/wp-content/uploads/2023/09/California-Becoming-Immigrant-Inclusion-FOT.pdf>

- Lee, C.-I., & Solon, G. (2009). Trends in intergenerational income mobility. *The Review of Economics and Statistics*, 91(4), 766-772.
- Logan, J. R., Xu, Z., & Stults, B. J. (2014). Interpolating US decennial census tract data from as early as 1970 to 2010: A longitudinal tract database. *The Professional Geographer*, 66(3), 412-420.
- Mickey-Pabello, D. (2023). The Affirmative Action Avalanche: The Rise of Underrepresented Minority Enrollment at For-Profit Institutions. *Sociology of Education*.
- Migration Policy Institute. (2019). Profile of the Unauthorized Population: California. Retrieved from <https://www.migrationpolicy.org/data/unauthorized-immigrant-population/state/CA>
- Miller, K. P. (2020). *Texas Vs. California: A History of Their Struggle for the Future of America*: Oxford University Press.
- Mordechay, K., Mickey-Pabello, D., & Ayscue, J. B. (2023). Gentrification and Schools: Challenges, Opportunities and Policy Options. A Civil Rights Agenda for California's Next Quarter Century. *Civil Rights Project-Proyecto Derechos Civiles*.
- Museum, S. D., & Kiang, P. N. (2009). Deconstructing the model minority myth and how it contributes to the invisible minority reality in higher education research. *New Directions for Institutional Research*, 2009(142), 5-15.
- Office of Management and Budget. (1997). *Revisions to the Standards for the Classification of Federal Data on Race and Ethnicity*. Washington D.C.
- Office of Management and Budget. (2000). *Provisional Guidance on the Implementation of the 1997 Standards for Federal Data on Race and Ethnicity*. Washington D.C.
- Ong, P., & Azores, T. (1994). Asian immigrants in Los Angeles: Diversity and divisions. *The new Asian immigration in Los Angeles and global restructuring*, 100, 102.
- Pastor, M. (2018). *State of resistance: what California's dizzying descent and remarkable resurgence mean for America's future*: The New Press.
- Pastor, M., & Scoggins, J. (2016). Estimating the Undocumented Population.
- Piketty, T. (2000). Theories of persistent inequality and intergenerational mobility. *Handbook of income distribution*, 1, 429-476.
- Provine, D. M. (2008). *Unequal under law: Race in the war on drugs*: University of Chicago Press.
- Ro, A., & Van Hook, J. (2021). Comparing immigration status and health patterns between Latinos and Asians: Evidence from the Survey of Income and Program Participation. *PloS one*, 16(2), e0246239.
- Rosenbaum, J. E. (1995). Changing the geography of opportunity by expanding residential choice: Lessons from the Gautreaux program. *Housing Policy Debate*, 6(1), 231-269.

- Ruggles, S., Sarah Flood, Ronald Goeken, Josiah Grover, Erin Meyer, Jose Pacas, and Mathew Sobek. (2019). *IPUMS USA: Version 9.0 [dataset]*. Retrieved from: <https://doi.org/10/18128/D010.V9.0>
- Small, M. L., & Adler, L. (2019). The role of space in the formation of social ties. *Annual Review of Sociology*, 45, 111-132.
- Small, M. L., Manduca, R. A., & Johnston, W. R. (2018). Ethnography, neighborhood effects, and the rising heterogeneity of poor neighborhoods across cities. *City & Community*, 17(3), 565-589.
- Tigges, L. M., Browne, I., & Green, G. P. (1998). Social isolation of the urban poor: Race, class, and neighborhood effects on social resources. *Sociological Quarterly*, 39(1), 53-77.
- Tomes, N. (1981). The family, inheritance, and the intergenerational transmission of inequality. *Journal of Political Economy*, 89(5), 928-958.
- Torche, F. (2015). Analyses of intergenerational mobility: An interdisciplinary review. *The Annals of the American Academy of Political and Social Science*, 657(1), 37-62.
- Tuan, M. (1998). *Forever foreigners or honorary whites?: The Asian ethnic experience today*. Rutgers University Press.
- Van Hook, J., Bachmeier, J. D., Coffman, D. L., & Harel, O. (2015). Can we spin straw into gold? An evaluation of immigrant legal status imputation approaches. *Demography*, 52(1), 329-354.
- Warren, R. (2014). Democratizing data about unauthorized residents in the United States: Estimates and public-use data, 2010 to 2013. *Journal on Migration and Human Security*, 2(4), 305-328.
- Wilson, W. J. (2011). *When work disappears: The world of the new urban poor*. Vintage.
- Wilson, W. J. (2012). *The truly disadvantaged: The inner city, the underclass, and public policy*. University of Chicago Press.

Appendices

Appendix A: *Differences Between Household Income Measurements*

The racial classifications are the same for both data sources and are consistent with the 1997 Office of Management and Budget standards (Office of Management and Budget, 1997, 2000).

There are two limitations to benchmarking the Opportunity Insights data to the IPUMS data. The first is that the IPUMS estimates do not link children and their parents as in the Opportunity Insights data; instead, the IPUMS estimates cross-sectional change in California over time. Secondly, the household income measured by both data sets differs (Chetty, Hendren, Kline, & Saez, 2014; Langetieg, Payne, & Plumley, 2017). As written by Chetty et al.:

Following Lee and Solon (2009), our primary measure of parent income is total pre-tax income at the household level, which we label *parent family income*. More precisely, in years where a parent files a tax return, we define *family income* as *Adjusted Gross Income* (as reported on the 1040 tax return) plus tax-exempt interest income and the non-taxable portion of Social Security and Disability benefits. In years where a parent does not file a tax return, we define *family income* as the sum of wage earnings (reported on form W-2), unemployment benefits (reported on form 1099-G), and gross social security and disability benefits (reported on form SSA-1099) for both parents. In years where parents have no tax return and no information returns, family income is coded as zero.

The IPUMS data is comprised of the total number of members in the household. The income for each contributing member of each household is totaled from the following questions (or slight variations of them; retirement was not measured in 1980):

- a. Wages, salary, commissions, bonuses, or tips from all jobs: report the amount before deductions for taxes, bonds, dues, or other items.
- b. Self-employment income from own nonfarm business, including proprietorship and partnership: Report net income after business expenses.
- c. Farm self-employment income: report net income after operating expenses; include earnings as a tenant farmer or sharecropper.
- d. Interest, dividends, net rental or royalty income, or income from estates and trusts: report even small amounts credited to an account.
- e. Social Security or Railroad Retirement.
- f. Supplemental Security Income (SSI), Aid to Families with Dependent Children (AFDC), or other public assistance or public welfare payments.
- g. Retirement, survivor, or disability pensions: do not include Social Security.
- h. Any other sources of income received regularly, such as Veterans' (VA) payments, unemployment compensation, child support, or alimony; should not be included in lump-sum payments such as money from an inheritance or the sale of a home.

The most apparent difference between the two data sources is that Opportunity Insights includes capital gains (line 7 of the 1040 form), but here adjusted gross income consists of some deductions such as those from student loans or health savings account deductions (see Schedule 1 Part II of the 1040 form). These deductions are not factored into the total household income for the IPUMS data.

The dependent variables constructed for this study reflect the difference between parents' and children's income. Parents' income is measured as the total pre-tax income at the household level. For non-filers, the income is coded as 0. In the publicly available data, the variable is the mean household income percentile rank for the U.S. at the tract level. For example, within a tract, if half of households are in the 50th percentile of the U.S. income distribution and the other half are in the

60th percentile of the U.S. income distribution, then the mean household income percentile for the tract is 55. Parents are ranked relative to other parents with children in the same birth cohort. Children's income is measured similarly. However, some of this income data was imputed using W-2 data unavailable to parents. The children were between 31 and 37 when their incomes were measured. The children and parents were compared at the tract where they both lived, not where the child ended up living during adulthood.

The difference in median household income measured in this study is simply the children's mean percentile at the tract level (based on the U.S. income distribution) minus the parents' mean percentile at the tract level (based on the U.S. income distribution). The parents' household income and children's household income as adults were also included in a series of bivariate regressions (i.e., mobility elasticities) that show unique combinations of racial groups across California and four of its major cities (San Diego, San Francisco, Los Angeles, and Sacramento). Upward mobility is also measured. It is a binary variable coded as 1 if the child holds at least a five-point advantage over their parents on their respective income distributions; they are coded as 0 otherwise. Downward social mobility is similarly coded, except that a five-point disadvantage is coded as downwardly mobile. All these variables are presented as descriptive statistics (counts, means, standard deviations, and t-tests) in Tables 1 through 4.

In the cartographic analysis, quintiles in the difference between children's and parents' incomes are used to illustrate mobility when the first dependent variable is visualized on the maps. The quintiles range from -0.69 to -0.09, through -0.03, through 0.02, through 0.08, and through 0.42. Hence, while five is somewhat arbitrary, it captures most of the top two quintiles, and -5 captures most of the bottom two quintiles. Although these quintiles would be different for within-racial and -ethnic group analysis, the same ranges are assigned to each racial and ethnic group so that cross-racial and -ethnic group comparisons can be made more clearly. The ethno-racial categories

used were: Native American, Asian, Black, Hispanic, White, Other, and All Race/Pooled (including all 6). In many analyses, Native Americans were excluded due to a dearth of data. Tables 1 through 4 show only 45 tracts in California with Native Americans, while there are nearly 8,000 tracts for all races. The cut-offs for inclusion/exclusion in the study were not detailed by Opportunity Insights. Tracts with a lack of data on the map were whited-out entirely. Tracts representing the lowest quintile were also whited-out but delineate the boundary of the tract in light grey. The greatest benefit of the cartographic analysis over the other descriptive statistics is that it geographically pinpointed where upward and downward social mobility was occurring within California. Furthermore, the descriptive statistics only showed summary measures of mobility, while the cartographic analysis allowed for visualizing the variance.

Appendix B: *Estimation of Non-Legal Permanent Residents*

This study used a logical editing procedure to estimate if a person was a legal or non-legal permanent resident (LPR). This approach was most consistent with that of Borjas (Borjas, 2017), although other scholars use a very similar approach (Pastor & Scoggins, 2016; Ro & Van Hook, 2021; Van Hook et al., 2015; Warren, 2014). The following describes the algorithm used to assign legal permanent status in this study:

1. The individual must have been foreign-born.
2. Did individuals immigrate before 1980? If so, they were assumed to be legal as the majority were legalized through the IRCA 1986 reform and were assumed to have had enough time to change their legal status, have migrated back to their home country, or have died.
3. If the person was a citizen, they were assumed to be legal.
4. If the person received Social Security, Social Security Income, Medicaid, Medicare, or military insurance, they were assumed to be legal. However, Medicare was not used in this study because (a) the 31- to 37-year-olds in this sample were ineligible and (b) some non-LPRs were eligible for the state's version of Medicaid.
5. If the person was a veteran, they were assumed to be legal.
6. This algorithm did not include information about receiving public housing or rental subsidies because it was not available in the IPUMS ACS data (not in ACS).
7. If the person worked for the government, they were assumed to be legal.
8. If the person was born in Cuba, they were assumed legal because of the Cuban Adjustment Act of 1966.
9. Some editing procedures assume that individuals with particular work-related licenses are legal. This study did not make this assumption because California SB 1159 offers

professional licenses to anyone who completes the necessary training and other state licensing requirements, regardless of immigration status. Applicants without a Social Security Number could provide an Individual Tax Identification Number (ITIN) when seeking a license.

10. Finally, if the individual was the spouse of someone legal, they were assumed to be legal.

The number of non-LPRs was estimated at 7.21% for all Californians across the years before those considered in this study, but 10.54% for its population of 31- to 37-year-olds. This estimate was within the bounds of others: Pew Research 2016 (5.6%), Center for Migration Studies 2010 (7.8%), and Migration Policy Institute 2010-2014 (8.1%). The more significant percentage for the 31- to 37-year-old group was also reasonable given that the largest share of non-LPRs was between the ages of 30 and 45 (Le & Pastor, 2022).

Appendix C: *Weights*

The results were reported as weighted and unweighted. The weighted results reflected analytic weights in which the cases (i.e., the census tract) were average. Since tracts had different numbers of children within them, some with more children had greater precision than did tracts with fewer children. The weights were proportional to the inverse of the variance, meaning that the tracts with more precisely measured averages had higher weights. The unweighted results treated each tract as having the same weight as any other tract. Hence, the unweighted results did not capture that tracts vary in size.

Appendix D: *Regression to the Mean*

Regression to the mean is a common problem in social science research. It was first discovered by Sir Francis Galton when he found that the children of very tall parents were, on average, shorter than their parents (Galton, 1886). Regression to the mean is a considerable limitation for studies of intergenerational mobility across various outcomes: wealth, income, occupation, and education (Borjas, 1993; Clark & Cummins, 2015). For example, suppose a child has a parent in the top 1% of the income distribution. In that case, the child will likely experience downward mobility – partly because there is no room for upward mobility, partly because of regression to the mean, i.e., their parents were likely a statistical anomaly, and partly because the child exhibits an outcome more typical of the central tendency of the population. A similar phenomenon is true at the bottom 1% – the children’s outcomes are closer to the central tendency of the population and thus upward from the bottom 1%. Therefore, we should anticipate regression to the mean to act “like a double-sided magnet,” pulling those at the ends of the distribution back towards the mean (Borjas, 1993).

Appendix E. *Additional Maps*

Figure E.1. Mobility for Whites in California

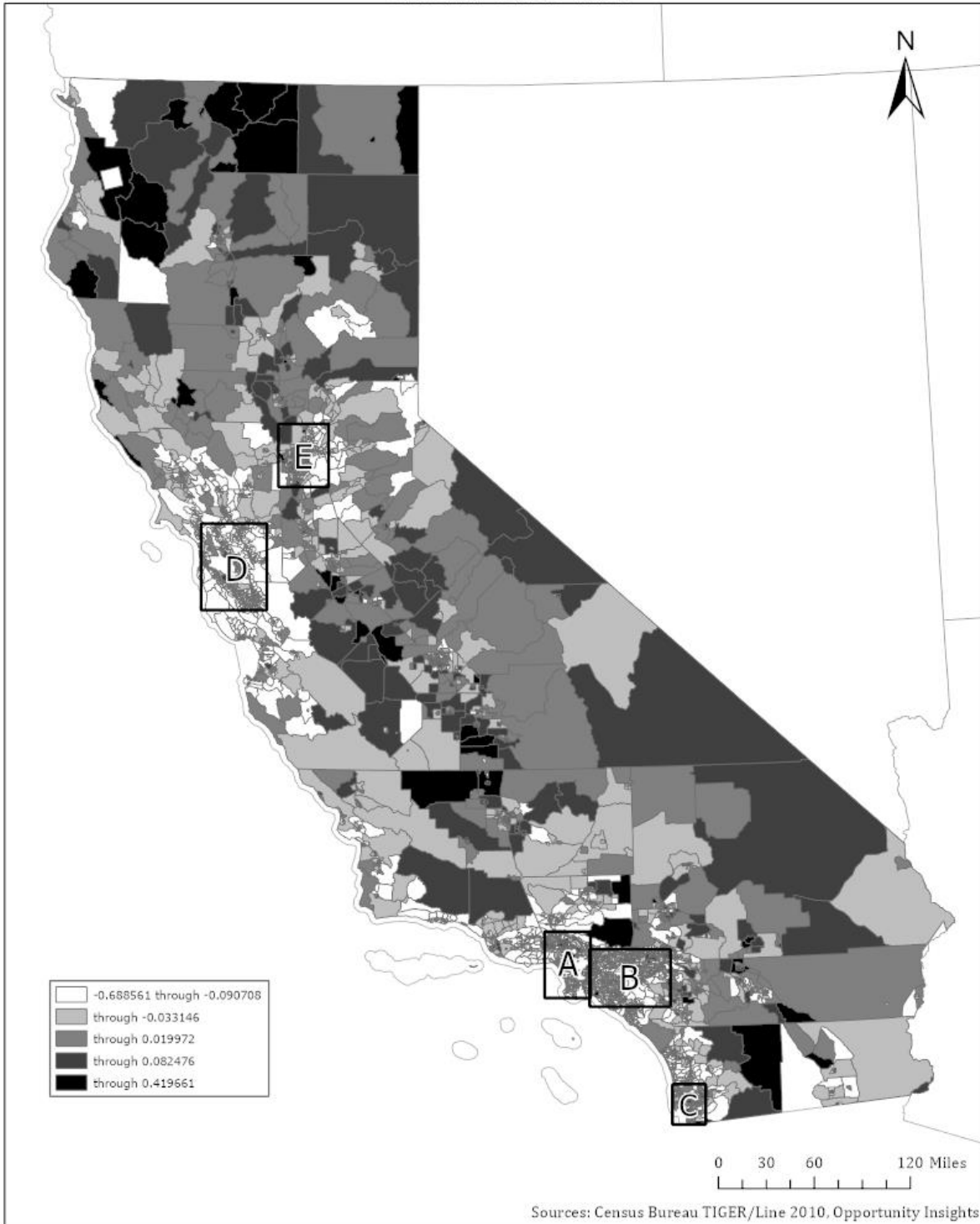


Figure E.2. Mobility for Asians in California

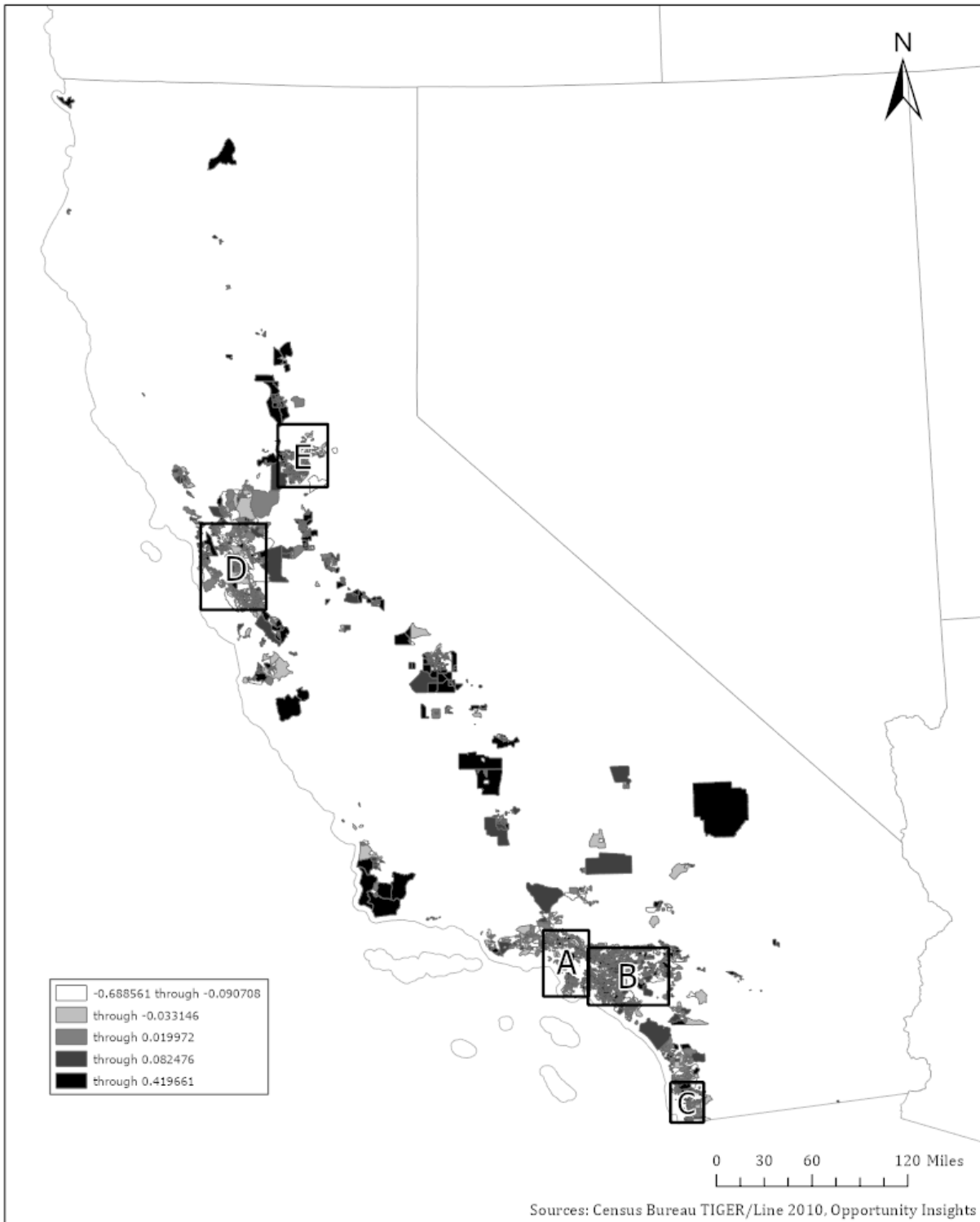


Figure E.3. Mobility for Others in California

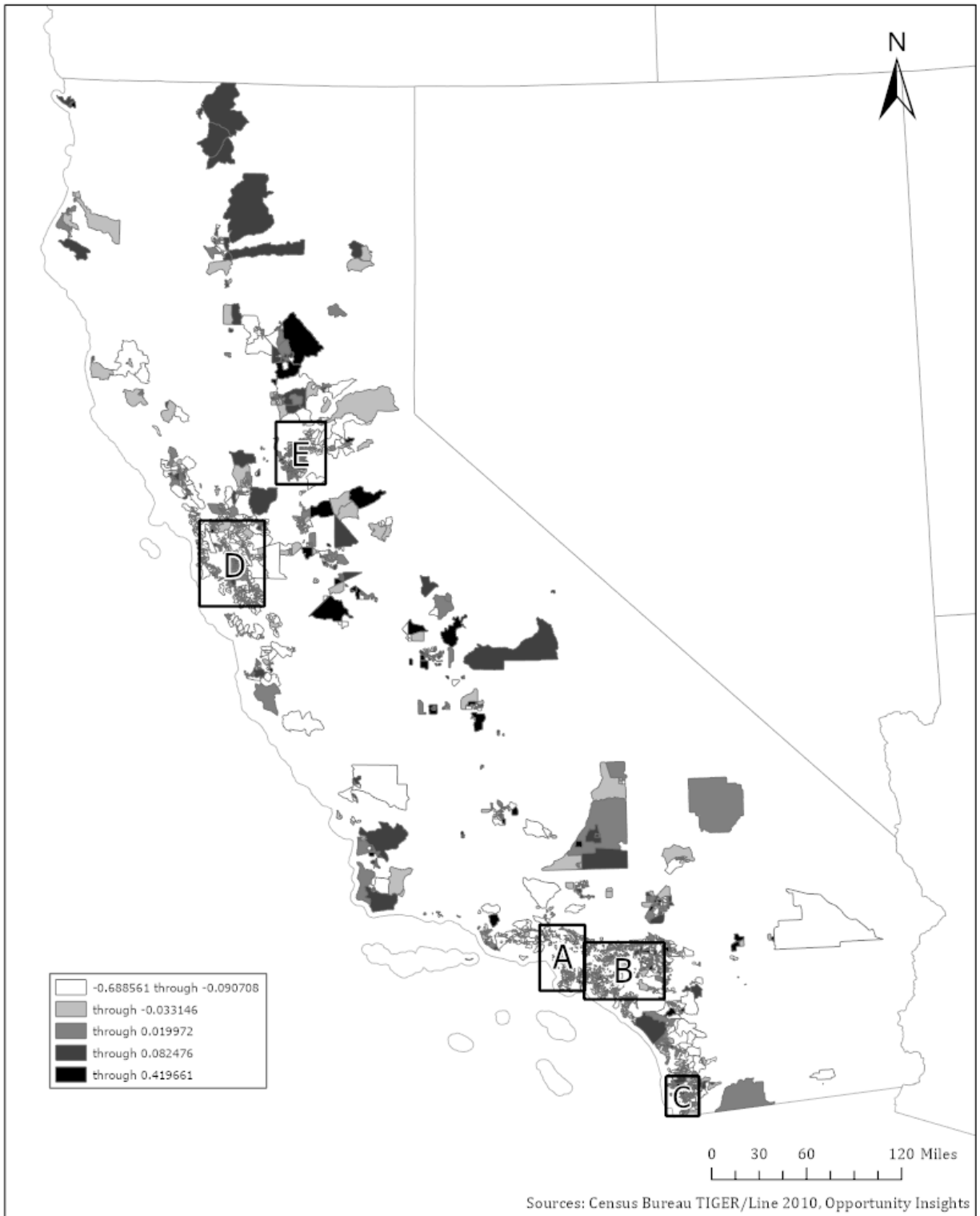


Figure E.4. Mobility for Whites in West & East Los Angeles



Figure E.5. Mobility for Others in West & East Los Angeles

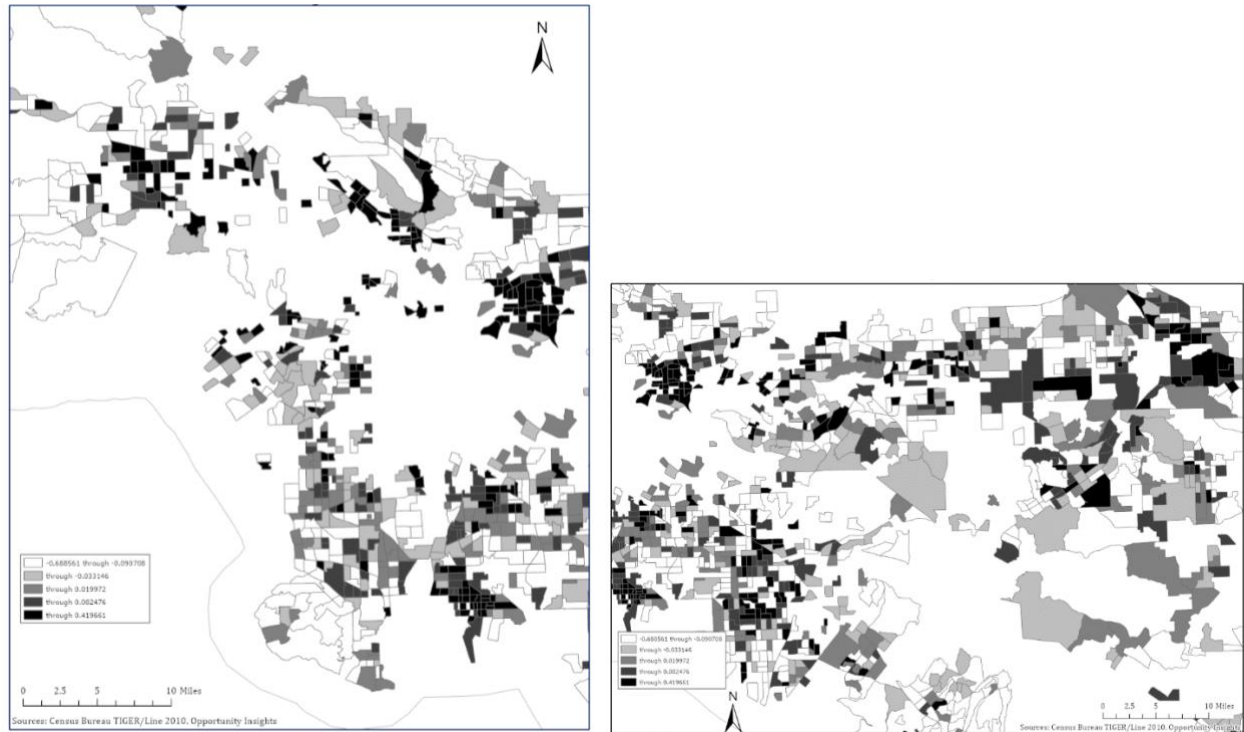


Figure E.6. Mobility for Whites in San Diego

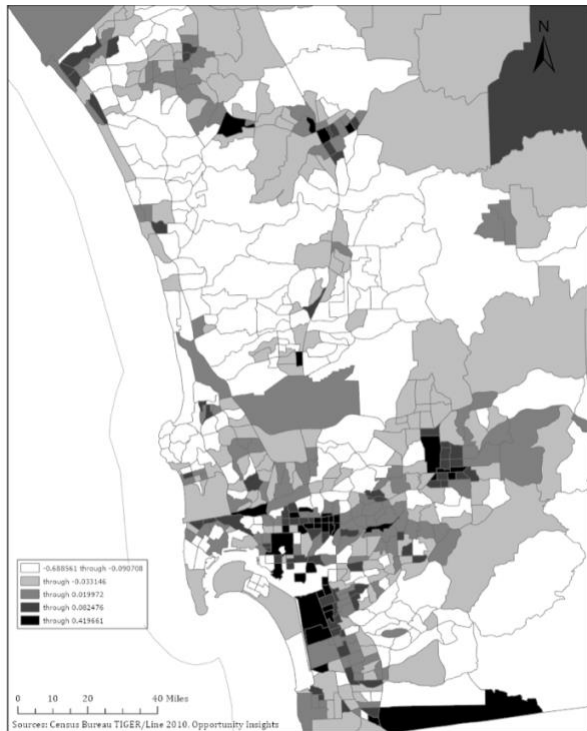


Figure E.7. Mobility for Asians in San Diego

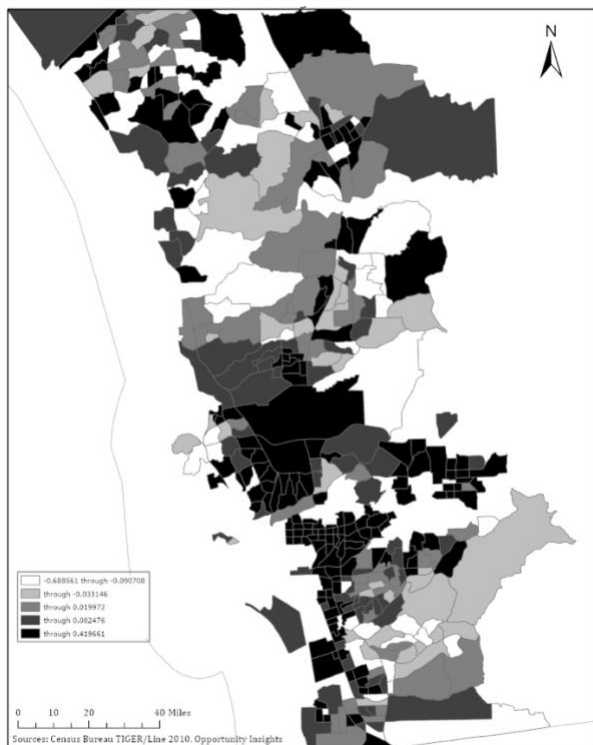


Figure E.8. Mobility for Others in San Diego

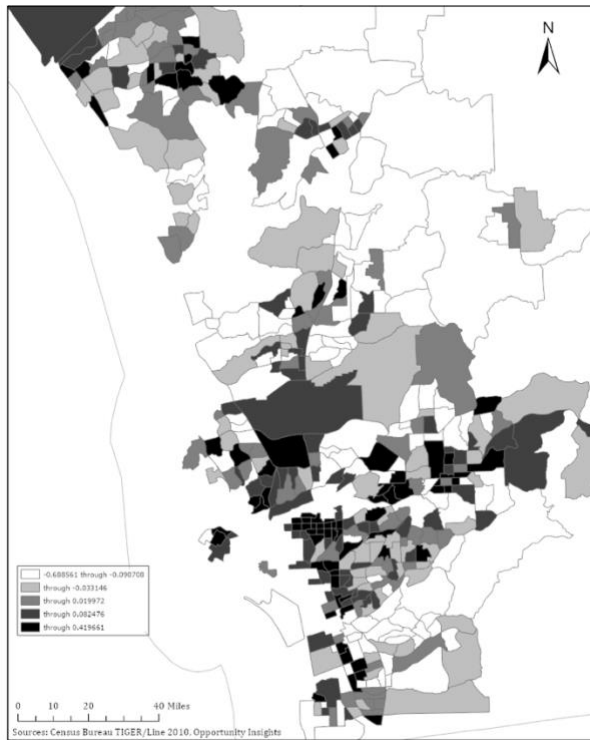


Figure E.9 Mobility for Whites in San Francisco

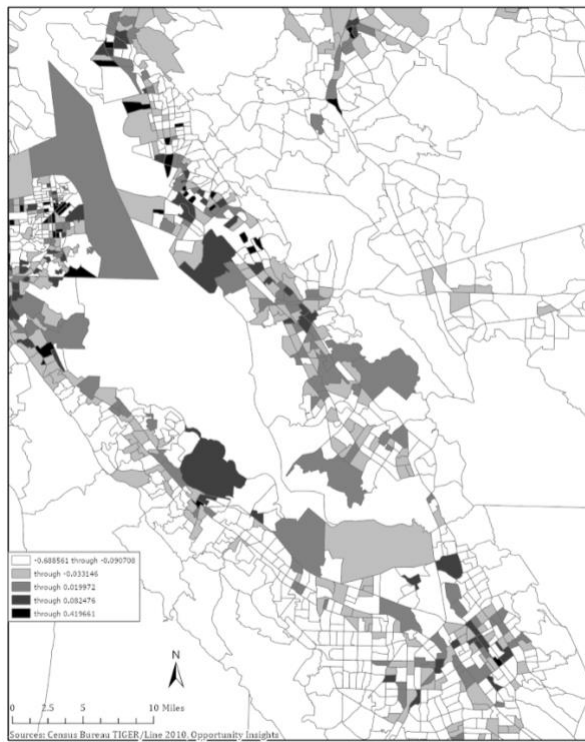


Figure E.10. Mobility for Hispanics in San Francisco

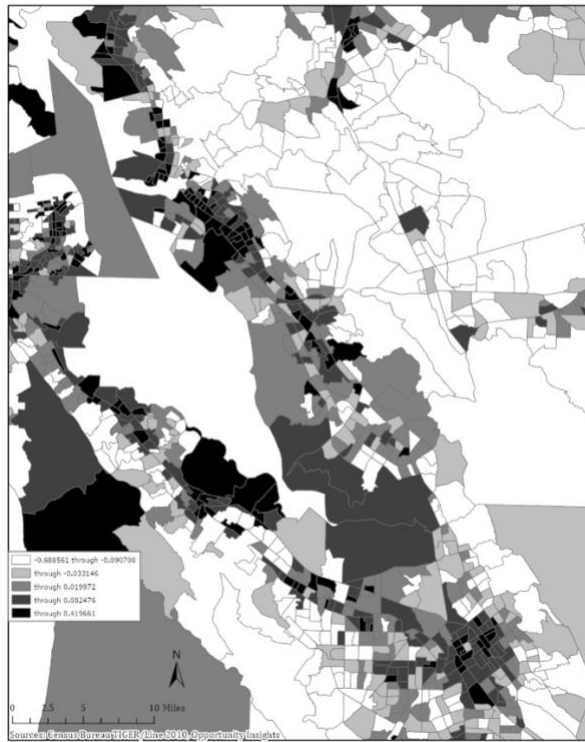


Figure E.11. Mobility for Others in San Francisco

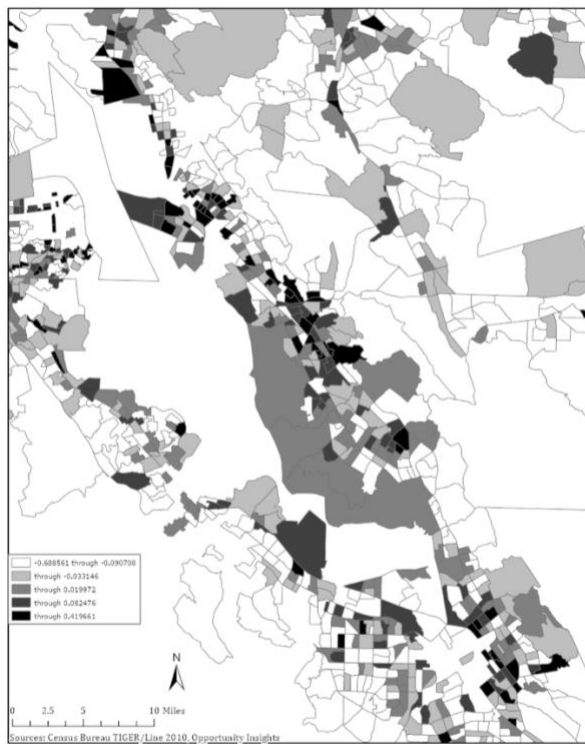


Figure E.12. Mobility for Whites in Sacramento

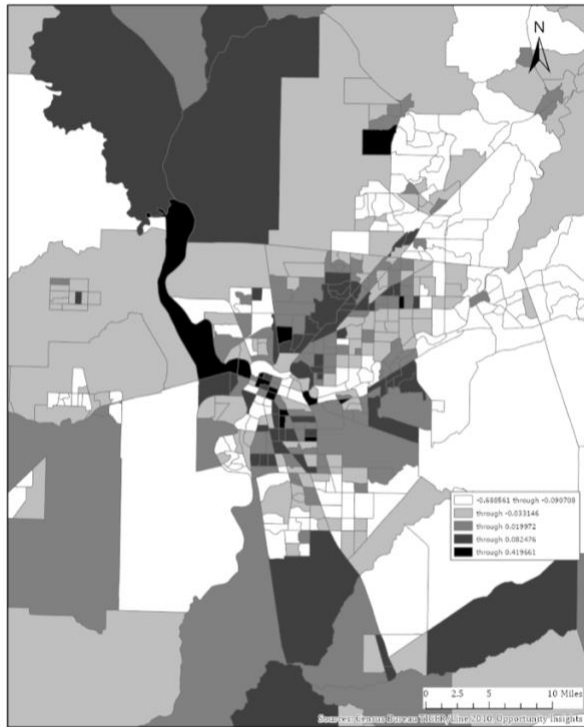


Figure E.13. Mobility for Others in Sacramento

