
MODULE 4

Housing Filtering, Prices, and Neighborhood Change in Communities of Color

AUTHORS:

Hyojung Lee, PhD., Virginia Tech
Dowell Myers, PhD., USC Price School of Public Policy
Sol Price School of Public Policy
Population Dynamics Research Group

Abstract

This report addresses occupancy changes impacting lower-income households and communities of color in housing and neighborhoods over the last decade. The transition of housing from higher to lower income groups, termed “filtering,” involves a complex interplay of factors. Analysis reported here employs new techniques comparing filtering in the largest California metros to other large metros in the U.S. Among renters, rapid gains before 2010 in the normal process of filtering—producing what is termed “naturally occurring” affordable housing—were attenuated in California metros and then strongly reversed in the last decade. Clear differences appear between Bay Area and Southern California metros. However, among homeowners filtering has proceeded more steadily over the decades, especially in the vintage of homes built between 1980 and 2000.

The report explores recent changes in communities of color, focusing especially on neighborhoods that are predominantly Black or Hispanic/Latinx within the Los Angeles-Orange County MSA. Analysis exploits newly released data from the 2020 census for the most up-to-date assessment of changes in communities of color and the nature of growing housing market competition from other groups due to shortages. We integrate additional tract-level information on housing price changes from the Census Bureau’s American Community Survey. Analysis finds communities of color are in flux, with multiple groups vying for housing that is relatively more affordable to them. New graphic visualization techniques are developed to show these changes in spatial context. Communities predominantly of color that received an expanding share of white or Asian residents already had higher house prices and rents at the beginning of the decade. The north end of predominantly Black areas of South LA, extending up to the 10 freeway, and the north end of the predominantly Latino East Side, extending just north and west of downtown LA, were primary locations for influx of white residents, an accompaniment of gentrification. Influxes of Asian population decreased Latino concentration in portions of the San Gabriel Valley and Orange County. Meanwhile, new growth of Black and Latino residents spread outside established communities of color to areas with substantially higher prices and rents.

INTRODUCTION

The housing stock is composed of a multitude of different housing units, roughly 50% rentals and 50% owner-occupied, that provide housing services for many decades after construction. Built up over time, their locations span a panoply of different neighborhood types, many of which are home to communities of color. Black and Latino households frequently live clustered in areas with fellow co-ethnics, but in recent decades they have increasingly dispersed to areas of more broadly integrated settlement (Frey 2018). This integration process has been aided by the return of white residents, especially Millennials, to inner city areas, but that also has increased competition for housing in central locations, raising prices, and displacing residents.

In California, competition for housing is especially acute. As examined in other reports from this research project, housing shortages have grown more stringent in the aftermath of the Great Recession. This is attributed to the revival of housing demand in the economic recovery after 2012, which occurred in the same years as the coming of age of the large Millennial generation (Myers 2016). This advancing age wave filled prime ages for household formation in rental housing and, by the end of the 2010s, also the prime ages for entry into homeownership (see Report from Module 1). Similar effects are occurring nationwide, because the economic revival and maturation of Millennials is widespread, but the impacts may be more acute in California because our housing shortages are more intense.

The operational definition of housing shortage adopted in this study has been the growing gap between rate of employment growth and rate of housing construction. This gap is not cleared on an annual cycle but instead cumulates over the years, because housing not built adds to a growing deficit unless there is substantial overbuilding in later years. Shortages have many deleterious impacts on housing opportunities, especially for young adults trying to establish themselves in the housing market. The negative effects are often especially great for communities of color (see Reports on Module 2 and Module 3).

The scope of the present report summarizes analysis of Module 4, with findings on two broad questions. The first is an inquiry into how much housing shifts toward lower-income occupancy (filters down) as it grows older, comparing the decade after 2010 to the one preceding. The focus is on a comparison of the large metropolitan areas in California with other large metros nationwide. Direct data on this question is extremely limited, none of which is specifically focused on California cities (Weicher et al. 2018). However, we extend a method of inference that was recently developed for comparison of metropolitan areas in a project for the National Multi Housing Council (NMHC) by Myers and Park (2020).

The second question for inquiry concerns how much communities of color have shifted their neighborhood locations, given growth in different groups of the population and limitations on the overall supply of housing. For this we take advantage of the newly released data from the 2020 census that reports racial distributions by census tracts. When compared to the same data from the 2010 census, and augmented with data from the American Community Survey, we can generate a fresh portrait of racial shifts and their alignment with house values and rents in neighborhoods. We offer an interpretation of how these shifts in the last decade may reflect the workings of gentrification and displacement rather than filtering.

DOWNWARD FILTERING OF HOUSING

The concept of filtering dates back as far as the early 1900s (Baer and Williamson 1988), with Ratcliff (1949) formalizing these discussions into the classic model of filtering. In his paper, filtering is defined as “the process described most simply as the changing of occupancy as housing that is occupied by one income group becomes available to the next lower income group as a result of decline in market price” (Ratcliff, 1949). While some are skeptical about the process, subsequent studies have generally confirmed the presence of filtering in some form, providing naturally occurring affordable housing for lower-income families through aging of housing and market mechanisms (Rosenthal 2014; Baer and Williamson 1988). Yet, it is also possible that the rate of filtering can vary across local housing markets when there is greater new construction.

People of color have generally benefited in decades when there was substantial filtering, because more opportunities opened at an affordable price. However, these benefits accrued at some risk of segregation. By definition, this filtering occurred in housing that was at least 20 years old and often much older, which implies that the opportunities from filtering were concentrated in older parts of cities. Meanwhile, opportunities in new construction were being dominated by white households with higher-than-average incomes. Between 1940 and 1980, the homeownership rate among metropolitan African American households increased by 27 percentage points. However, nearly three-quarters of this increase occurred in central cities, and Boustan and Margo (2013) show that rising black homeownership in central cities was facilitated by the movement of white households to the suburban ring, representing a very large filtering transfer that was a “silver lining to white flight.” The downside to this process is to reinforce the segregation of people of color in older neighborhoods. This process can be reversed, with opposite effects when filtering flips to gentrification (higher income or more advantaged people moving into housing previously occupied by less advantaged). This was always theoretically possible if insufficient new supply were added at the same time as competition was growing for affordable rentals or for first-time homeownership. That has now materialized, in fact, due to extreme housing shortages following the Great Recession. The recent return to the city movement among Millennials and others poses a competitive hazard to established residents in neighborhoods predominantly occupied by communities of color.

Definition and Measurement of Filtering

A practical definition of whether filtering works to supply housing opportunity is whether units become home to lower-income households as the units grow older over time. For this assessment, we need to observe changes over longer time periods of one or two decades. A first step is to define what is “lower income.” In this study, we use the HUD method of defining household income as a percentage of the area median income (AMI). The most common HUD definition of lower income is households with less than 50% of AMI. This measure was adopted in the Myers-Park (2020) study of rental housing. As shown in Exhibit 1, that income grouping described 39% of renters in both 2000 and 2019. However, the same definition only covers 14% or 15% of homeowners. To achieve a similar 39% share of homeowners that are “lower income,” we propose to raise the income threshold to less than 100% of AMI (or simply all homeowners with incomes below the household median—owners and renters combined—in the area). Comparison of data from 2000 and 2019 shows that this definition yields a very consistent relative measure of “lower income” households.

Exhibit 1. Lower-Income Households Defined in Rental and Owner Housing

	CENSUS 2000						2019 AMERICAN COMMUNITY SURVEY					
	Total	(%)	Owners	(%)	Renters	(%)	Total	(%)	Owners	(%)	Renters	(%)
All Households	67,382	100.0	42,698	100.0	24,684	100.0	80,048	100.0	49,336	100.0	30,712	100.0
AMI < 30%	8,627	12.8	2,896	6.8	5,732	23.2	10,895	13.6	3,686	7.5	7,209	23.5
AMI < 50%	15,703	23.3	6,060	14.2	9,644	39.1	19,576	24.5	7,488	15.2	12,088	39.4
AMI < 80%	26,927	40.0	11,929	27.9	14,998	60.8	32,332	40.4	14,049	28.5	18,283	59.5
AMI < 100%	33,641	49.9	16,021	37.5	17,620	71.4	39,965	49.9	18,533	37.6	21,432	69.8
AMI < 120%	39,700	58.9	20,085	47.0	19,615	79.5	46,663	58.3	22,844	46.3	23,818	77.6

Source: Authors’ analysis based on the Census 2000 and the 2019 American Community Survey 1-Year Public Use Microdata Sample (PUMS). Note: The sample is restricted to the households within the top 100 MSAs.

How much difference is there in older ages of housing, compared to newer, in the share of occupants that have lower income? And is this difference similar among renters and owners? The following table offers a “snapshot-in-time,” 2019 display of how many occupants are lower income in housing that was built longer ago and now is older (Exhibit 2), based on the two definitions given above for renters and owners. In a nutshell, over 40% of the housing built earlier than the 1980s vintage have lower income residents, while less than 30% of residents in newer units have lower incomes. These differences are somewhat greater among homeowners than renters.

Exhibit 2. Larger Share of Lower-Income Households Reside in Older Housing in 2019

	ALL HOUSEHOLDS			OWNER-OCCUPIED			RENTER-OCCUPIED		
	Total	Lower-Income	(%)	Total	Lower-Income	(%)	Total	Lower-Income	(%)
All Units	80,048	30,621	38.3	49,336	18,533	37.6	30,712	12,088	39.4
Pre-1960 Vintage	22,319	9,722	43.6	13,561	5,927	43.7	8,758	3,794	43.3
1960s Vintage	8,705	3,780	43.4	5,153	2,234	43.4	3,552	1,546	43.5
1970s Vintage	11,528	4,943	42.9	6,576	2,845	43.3	4,952	2,098	42.4
1980s Vintage	10,532	4,083	38.8	6,391	2,498	39.1	4,142	1,585	38.3
1990s Vintage	10,470	3,461	33.1	6,824	2,179	31.9	3,646	1,282	35.2
2000s Vintage	10,579	3,122	29.5	7,413	2,087	28.1	3,166	1,035	32.7
2010s Vintage	5,914	1,510	25.5	3,419	763	22.3	2,496	747	29.9

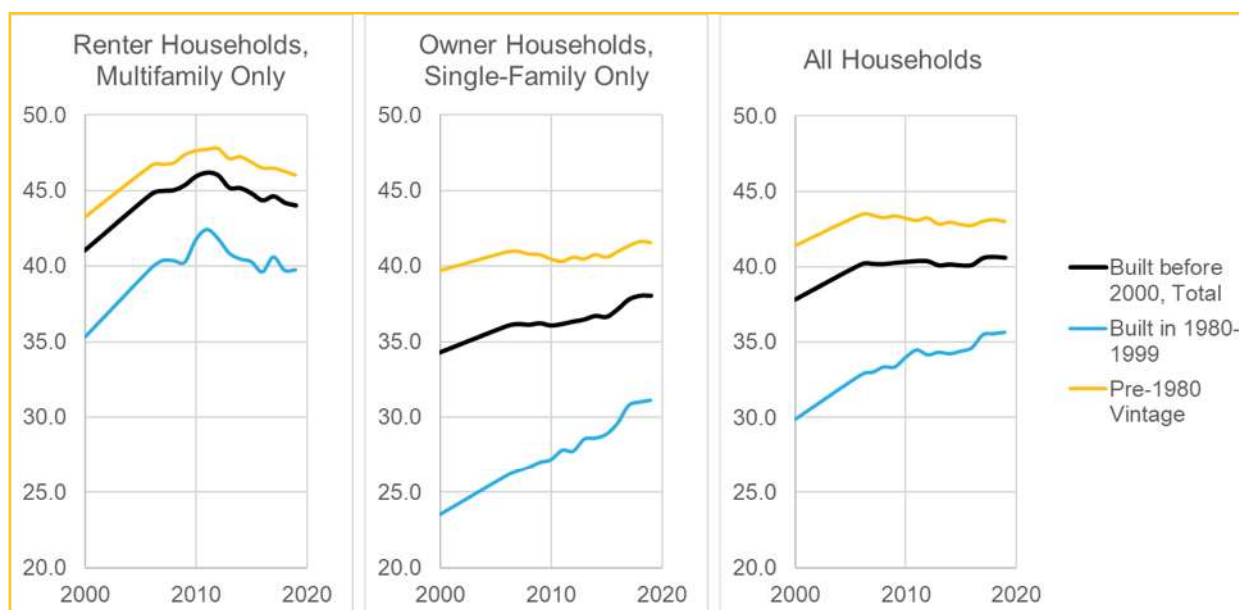
Source: Authors' analysis based on the 2019 American Community Survey 1-Year Public Use Microdata Sample (PUMS). Note: The sample is restricted to the households within the top 100 MSAs.

Although this clearly suggests that lower-income households reside in older housing, this snapshot in 2019 does not necessarily show that they gravitate to those homes over time. It is also possible that older housing held lower-income residents from the time it was first built. After all, newer housing has been built with more modern amenities, technology and fashions. The concept of filtering presumes changes over time, and for that we must follow a vintage of housing *as it grows older* to see whether it accumulates a greater share of lower-income residents after a decade or two. For that we need to survey residents at two points in time, a resource that the Census Bureau has kindly provided through its periodic censuses and surveys.

Trends over Time in Filtering

The findings on filtering over time are displayed in Exhibit 3, restricting this only to housing built before our first observation in 2000. We separately identify all housing built before 1980 from that built from 1980 to 1999. The data reported here are aggregated across the 50 largest metros of the U.S., in order to represent the national pattern in large urban areas.

Exhibit 3. Rising Share of Lower Income Households Among Renters and Owners as Housing Grows Older, by Two Vintages, but Reversing After 2010 for Renters (50 U.S. Metros Combined)



Source: Authors' analysis based on the Census 2000 and the 2006–2019 American Community Survey 1-Year Public Use Microdata Sample (PUMS). Note: The sample is restricted to the households within the top 50 MSAs.

Among renters¹ there is a clear accumulation of lower-income occupants after 2000, but this trend reverses sometime after 2008 or 2011 (as the impacts of the Great Recession were felt). Thereafter, we see a steady retreat of lower-income occupancy. Filtering appears to be working in the first decade, but it then reverses in the most recent decade. A similar pattern was found among multifamily rentals in the Myers-Park NHMC study, extending the decades of successful filtration back to 1980, which makes the recent reversal all the more anomalous.

The present study adds analysis of owner-occupied housing using a similar vintage aging method.² Within the older vintage housing (pre-1980) there is virtually no evidence of increased lower-income occupancy over time, remaining between 40% and 42% lower-income for 20 years. However, among the newer units, built 1980 to 1999, there is a steady rise in lower-income occupancy for 14 years, rising from 23.5% to 28.5% lower-income, followed by a 5-year upsurge to about 31.5% lower-income by 2019 (an 8 percentage-point rise overall, increasing the lower-income proportion by a full third). If we pool together the filtering evidence of owners and renters, we find a steady 6 percentage-point gain in lower-income occupancy in the vintage built 1980 to 1999 (one-fifth greater than in 2000). However, the lower-income occupancy in the older vintage maintains a high plateau, showing a post-2000 gain of only about 2 percentage points, all within the first 7 years, and none thereafter.

Here, we see the filtering process has not been functioning well since the financial crisis of 2007-2008, and that is largely due to what has happened in the rental market. Interpretation of these findings is that filtering has produced additional lower-income opportunities but those are muted in recent years. The sharp reversal among renters is consistent with the evidence of growing effects of housing shortage, both as shown in the Module 3 report, and also in a study of renter mobility rates that suddenly declined after 2012 (Myers, Park and Cho, 2021). An additional factor is that the plunge in homeownership after 2008 shifted more would-be owners into renting, likely increasing incomes in the rental sector from what they had been before.

On the homeowner side of filtering, the steady rise of lower-income occupancy in the vintage built 1980 to 1999 is especially noteworthy. Whether this results from fresh occupancies of new buyers with incomes below the median for their metro is unknown but less likely than the alternative that prior buyers have aged in place holding on to their homes while incomes have slipped downward in their older age (or as median

Exhibit 4. California Metros Exhibit Slower Increases in Lower Income Occupancy as Housing Grows Older, Particularly Among Renters, and With Smaller Distinctions Between Vintages (6 California Metros Combined)



¹ Data pertain to renters in multifamily structures with 5 or more units, but equivalent trends are found among all renters.

² Data pertain to owners in single-family units, but equivalent trends are obtained if owners in all types of structures are combined.

incomes have risen compared to older peoples' incomes and retirees' fixed incomes). The latter interpretation is consistent with the steady high plateau of the pre-1980 vintage, whose incomes already had settled and now are joined (possibly) by new replacements who also have modest incomes.

The above analysis was carried out for the 50 largest metros in the nation. We now repeat that here for California by aggregating the six largest MSAs in California—Los Angeles, San Francisco, Riverside, San Diego, Sacramento, and San Jose (Exhibit 4). Results closely resemble those for the U.S., but with some key differences. Among renters, there is much less distinction between newer and older vintages, and the rate of filtering before 2010 is also much less in California.

Among owners in California, there also is less distinction between the vintages, largely because the older vintage has a smaller share that has lower income (defined for owners, again, as income less than the median income of all households in the metro area) than in the U.S. Among the newer vintage, there actually is a somewhat steadier increase in lower-income occupancy, suggesting slightly faster filtering.

Comparing the Rate of Filtering in Individual Metros

The reversal of filtering for renters, although not homeowners, appears widespread in California and the U.S. We can compare the rate of filtering in two decades by directly comparing each metro's percentage point gains in lower-income occupancy. Through this indicator we can compare the filtering rate of each individual metro in the 2010s against its rate in the 2000s, first for the older vintage (built pre-1980) of homes and then the newer vintage (built 1980-99). Each dot locates the rate of filtering of the same metro area in two consecutive decades, the earlier decade on the horizontal axis and the recent decade scaled on the vertical (Exhibit 5). Thus, dots located above the horizontal line represent faster filtering in the most recent decade. We repeat this separately for renters and homeowners.

Among homeowners in the older housing, built before 1980, there was virtually no filtering observed either decade in San Jose, while in the San Francisco-Oakland metro, substantial gains were made after 2010: a 5.0 percentage point gain in the share of occupants who were lower income, compared to a 1.0 percentage point decline in the earlier decade.

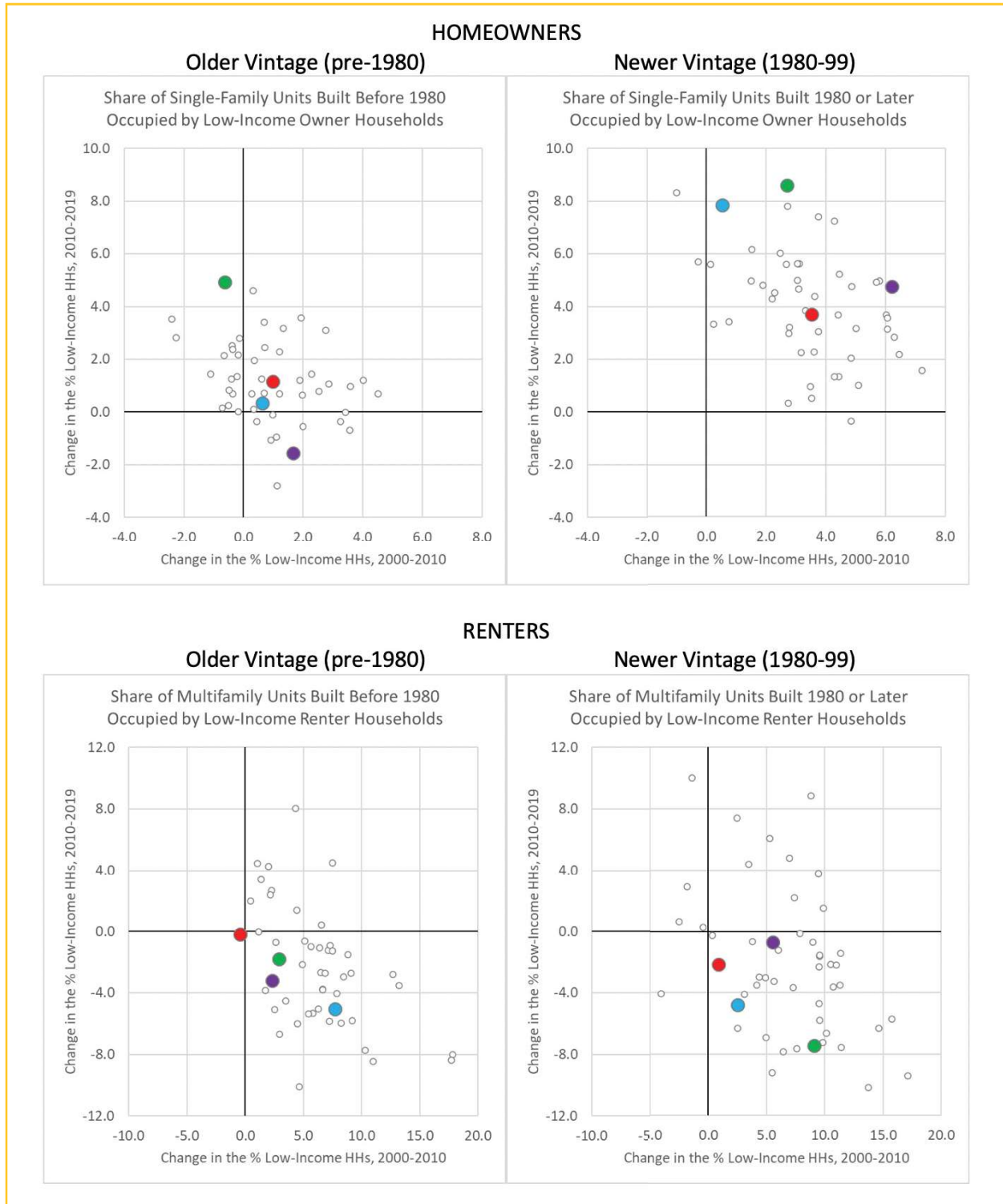
In contrast, within the newer vintage of housing (built 1980 to 1999), homeowners benefited from strong filtering that was widespread over the two decades after construction. The San Francisco metro's rate of filtering rose 9 percentage points in the recent decade compared to a rate of 3 percentage points in the previous decade. The Inland Empire (Riverside-San Bernardino) exhibited the most sustained rate of homeowner filtering across decades, rising 5 percentage points in the most recent decade, following a gain of 6 percentage points in the earlier decade.

Turning to renters' rate of filtering, we find the positive gains in filtering during the earlier decade were sharply reversed in many metros in both the older and newer vintages of rentals. The LA metro experienced very little rental filtering either decade in either vintage, whereas the San Jose metro reversed from a 7-point gain to a 5-point loss in the older vintage. In the newer vintage, San Francisco stands out for its reversal of filtering, switching from a 9-point gain in the earlier decade to a 7-point loss of lower income renters in the recent decade.

Overall Assessment of Filtering

Filtering is found to increase lower-income occupancy appreciably in a good decade, like 2000 to 2010, among both renters and owners. Among owners, sizable gains are achieved in housing units in their first two decades of service. However, the reversal of filtering in the recent decade among renters withdraws a former major source of lower-income housing opportunity.

Exhibit 5: Filtering Rate in 2010-2019 (y-axis) Compared to 2000-2010 (x-axis), by Two Vintages and Tenure Status (50 largest U.S. Metros and 4 Largest California Metros: SF-Oak (green), San Jose (blue), LA (red), Riverside-San Bernardino (purple))



RACIAL CHANGE IN CALIFORNIA AND ITS METROPOLITAN AREAS

The United States is undergoing profound demographic shifts, and California is at the front lines of this demographic change into a fully multiracial society. The recently released decennial Census 2020 reveals that the U.S. population is more racially and ethnically diverse than ever before, as the number of people of color grew substantially over the past decade. While non-Hispanic whites remain the racial and ethnic

majority of the country, their share fell to 57.8%, while African Americans grew to 12.1% of the population, Asian and Pacific Islanders accounted for 6.1%, and Hispanic or Latino residents grew to 18.7% of the nation's population. A final Other group, which includes indigenous and multiracial people, expanded its collective share of the population to 5.3%.

Compared to the nation, California has much greater shares of its population in people of color. While African Americans held a relatively small share in California in 2020 (5.4%, less than half the national share but still 2.1 million people), Asian and Pacific Islanders comprised 15.5% of the state's population (more than twice the national average). Meanwhile the Hispanic or Latino population grew to 39.4%, also twice the national average. The 2020 census reported that non-Hispanic whites accounted for 34.7% of the state's population, second largest after the Latino plurality. In total, people of color amounted to nearly two-thirds (65.3%) of California's population (Exhibit 6).

This diverse population is prevalent in all the large metros of California, generally reflecting the state's overall profile. Some differences are notable. The decline in the share of non-Hispanic white residents was more pronounced in Sacramento (-7.4 pp.), Riverside (-7.2 pp.), San Jose (-6.5 pp.), and San Francisco (-6.2 pp.), and it was least pronounced in Los Angeles (-3.1%). The Asian and Pacific Islander shares increased rapidly in the San Francisco (+4.3 pp.) and San Jose (+6.9 pp.) metros. During the period, San Jose witnessed its Hispanic share decrease by 1.5 percentage points, while the Hispanic share rapidly grew in all other metros, especially in Riverside (+4.3 pp.). See Exhibit 6.

Truly, each metro in California has a distinctive racial/ethnic mix, yet all have a complex blend of residents competing for housing in different parts of their metro area. The early release from the 2020 census provides a unique opportunity to assess the population changes (no housing data are yet released) over the last decade in every neighborhood (census tracts) of our largest metro areas. In following sections, we survey the spatial distribution of communities of color, identify areas where different race or Hispanic origin groups predominate, and spotlight areas of decline for different groups. But if people of color are declining in their traditional locations, they may be expanding elsewhere in the same metro, and we survey that. Finally, we identify what other groups may be expanding in lieu of the losses in traditional areas of residence. Using data from outside the census, we identify housing characteristics of different neighborhoods, focusing on their relative rents and price levels in 2010 that may have made them more attractive in the competition for affordable housing.

Exhibit 6. Population by Race/Ethnicity in U.S., California, and 6 California Metros, 2010-2020.

	Population (in 1,000s)				Population Share (%)			
	2000	2010	2020	2010-2020	2000	2010	2020	2010-2020
UNITED STATES	281,422	308,746	331,449	22,703	100.0	100.0	100.0	0.0
NH-White	194,553	196,818	191,698	-5,120	69.1	63.7	57.8	-5.9
Black	33,948	37,686	39,940	2,254	12.1	12.2	12.1	-0.1
Asian and Pacific Islander	10,477	14,947	20,241	5,294	3.7	4.8	6.1	1.3
Hispanic	35,306	50,478	62,080	11,602	12.5	16.3	18.7	2.4
Other	7,139	8,818	17,491	8,673	2.5	2.9	5.3	2.4
CALIFORNIA	33,872	37,254	39,538	2,284	100.0	100.0	100.0	0.0
NH-White	15,817	14,956	13,715	-1,241	46.7	40.1	34.7	-5.4
Black	2,182	2,164	2,119	-45	6.4	5.8	5.4	-0.4
Asian and Pacific Islander	3,753	4,904	6,117	1,213	11.1	13.2	15.5	2.3
Hispanic	10,967	14,014	15,580	1,566	32.4	37.6	39.4	1.8
Other	1,154	1,217	2,008	791	3.4	3.3	5.1	1.8

	Population (in 1,000s)				Population Share (%)			
	2000	2010	2020	2010-2020	2000	2010	2020	2010-2020
LOS ANGELES MSA	12,365	12,829	13,201	372	100.0	100.0	100.0	0.0
NH-White	4,418	4,057	3,762	-295	35.7	31.6	28.5	-3.1
Black	944	859	810	-49	7.6	6.7	6.1	-0.6
Asian and Pacific Islander	1,540	1,889	2,202	313	12.5	14.7	16.7	2.0
Hispanic	5,118	5,701	5,892	191	41.4	44.4	44.6	0.2
Other	345	323	536	213	2.8	2.5	4.1	1.6
RIVERSIDE MSA	3,255	4,225	4,600	375	100.0	100.0	100.0	0.0
NH-White	1,541	1,547	1,354	-193	47.3	36.6	29.4	-7.2
Black	243	302	320	18	7.5	7.1	7.0	-0.1
Asian and Pacific Islander	141	262	354	92	4.3	6.2	7.7	1.5
Hispanic	1,229	1,996	2,373	377	37.8	47.3	51.6	4.3
Other	101	119	198	79	3.1	2.8	4.3	1.5
SACRAMENTO MSA	1,797	2,149	2,397	248	100.0	100.0	100.0	0.0
NH-White	1,145	1,197	1,157	-40	63.7	55.7	48.3	-7.4
Black	124	150	159	9	6.9	7.0	6.6	-0.4
Asian and Pacific Islander	167	266	370	104	9.3	12.4	15.4	3.0
Hispanic	278	434	533	99	15.5	20.2	22.2	2.0
Other	83	102	178	76	4.6	4.7	7.4	2.7
SAN DIEGO MSA	2,814	3,095	3,299	204	100.0	100.0	100.0	0.0
NH-White	1,549	1,500	1,422	-78	55.0	48.5	43.1	-5.4
Black	154	147	145	-2	5.5	4.7	4.4	-0.3
Asian and Pacific Islander	257	342	414	72	9.1	11.0	12.5	1.5
Hispanic	751	991	1,120	129	26.7	32.0	33.9	1.9
Other	102	116	198	82	3.6	3.7	6.0	2.3
SAN FRANCISCO MSA	4,124	4,335	4,749	414	100.0	100.0	100.0	0.0
NH-White	2,026	1,840	1,718	-122	49.1	42.4	36.2	-6.2
Black	387	350	323	-27	9.4	8.1	6.8	-1.3
Asian and Pacific Islander	810	1,024	1,325	301	19.6	23.6	27.9	4.3
Hispanic	733	939	1,086	147	17.8	21.7	22.9	1.2
Other	167	182	297	115	4.1	4.2	6.2	2.0
SAN JOSE MSA	1,736	1,837	2,000	163	100.0	100.0	100.0	0.0
NH-White	769	648	575	-73	44.3	35.3	28.8	-6.5
Black	45	43	43	0	2.6	2.3	2.1	-0.2
Asian and Pacific Islander	433	573	762	189	24.9	31.2	38.1	6.9
Hispanic	429	510	527	17	24.7	27.8	26.3	-1.5
Other	60	63	94	31	3.5	3.4	4.7	1.3

Source: Authors' analysis based on the 2010 and 2020 decennial Census data.

LOS ANGELES-LONG BEACH-ANAHEIM, CA METRO AREA

The largest metro area in California affords the best venue for witnessing how neighborhood demographics have been changing. In 2010–2020, a dramatic shift in the racial and ethnic composition continued in the Los Angeles MSA, which is comprised of Los Angeles County and Orange County. This metro is only slowly growing, a total population gain of 2.9% over the decade, and none of its race/ethnic groups are changing rapidly (Exhibit 7). Thus the local area changes we identify result, not from large increases of any particular groups in the region, but from a re-sorting of the existing number of residents as people seek to adjust their housing. In addition, none of the groups accounts for a majority of the population in the metro area, the largest in the 2020 census being the Hispanic or Latino group (44.6%). Yet all of the groups occupy significant positions in the urban area, often overlapping with one another in particular neighborhoods. Thus, the communities of color are not sharply bounded in space and they continue to spread over time.

Overview of the Metro Change

We identify an inner core of the metro area as the area within the 15-mile ring surrounding city hall in the city of Los Angeles. This metropolitan core is 30 miles wide, spanning east-west from Santa Monica to El Monte, and north-south from La Crescenta-Montrose to Gardena, including downtown Los Angeles and all of its inner-city neighborhoods. The central area holds about 6 million people, slightly less than half (45%) of the total population in the Los Angeles MSA in 2020 (13.2 million), and that 6 million number has remained virtually unchanged over time. The African American share in the central area (9.0%) is substantially greater than that in the MSA (6.1%). As shown in data in the lower panel of Exhibit 7, there was a greater decline of three groups in this inner core than for the full metro (Asian, Black, and Latino), which indicates that group members were shifting over the decade to the outer sections of the metro. Conversely, the white population declined by 295,000 in the metro but none at all inside the central core, reflecting the concentration of young, white, college graduates in the downtown area during the period.

Exhibit 7. Population by Race/Ethnicity in the Los Angeles-Long Beach-Anaheim, CA Metro Area, 2010-2020.

	Population (in 1,000s)				Population Share (%)			
	2000	2010	2020	2010-2020	2000	2010	2020	2010-2020
LOS ANGELES MSA	12,365	12,829	13,201	372	100.0	100.0	100.0	0.0
NH-White	4,418	4,057	3,762	-295	35.7	31.6	28.5	-3.1
Black	944	859	810	-49	7.6	6.7	6.1	-0.6
Asian and Pacific Islander	1,540	1,889	2,202	313	12.5	14.7	16.7	2.0
Hispanic	5,118	5,701	5,892	191	41.4	44.4	44.6	0.2
Other	345	323	536	213	2.8	2.5	4.1	1.6
< 15 mi. of City Center	5,852	5,918	5,987	70	100.0	100.0	100.0	0.0
NH-White	1,459	1,403	1,402	0	24.9	23.7	23.4	-0.3
Black	692	599	538	-60	11.8	10.1	9.0	-1.1
Asian and Pacific Islander	673	778	837	59	11.5	13.1	14.0	0.8
Hispanic	2,868	3,007	2,989	-18	49.0	50.8	49.9	-0.9
Other	159	132	221	89	2.7	2.2	3.7	1.5

Source: Authors' analysis based on the 2000–2020 decennial Census data.

Given these general demographic trends, we will examine how communities of color in 2010 have evolved during the following decade up to 2020. We first identify communities of color in 2010 based on their racial/ethnic concentration in clusters of census tracts. In doing so, we categorize census tracts into three groups:

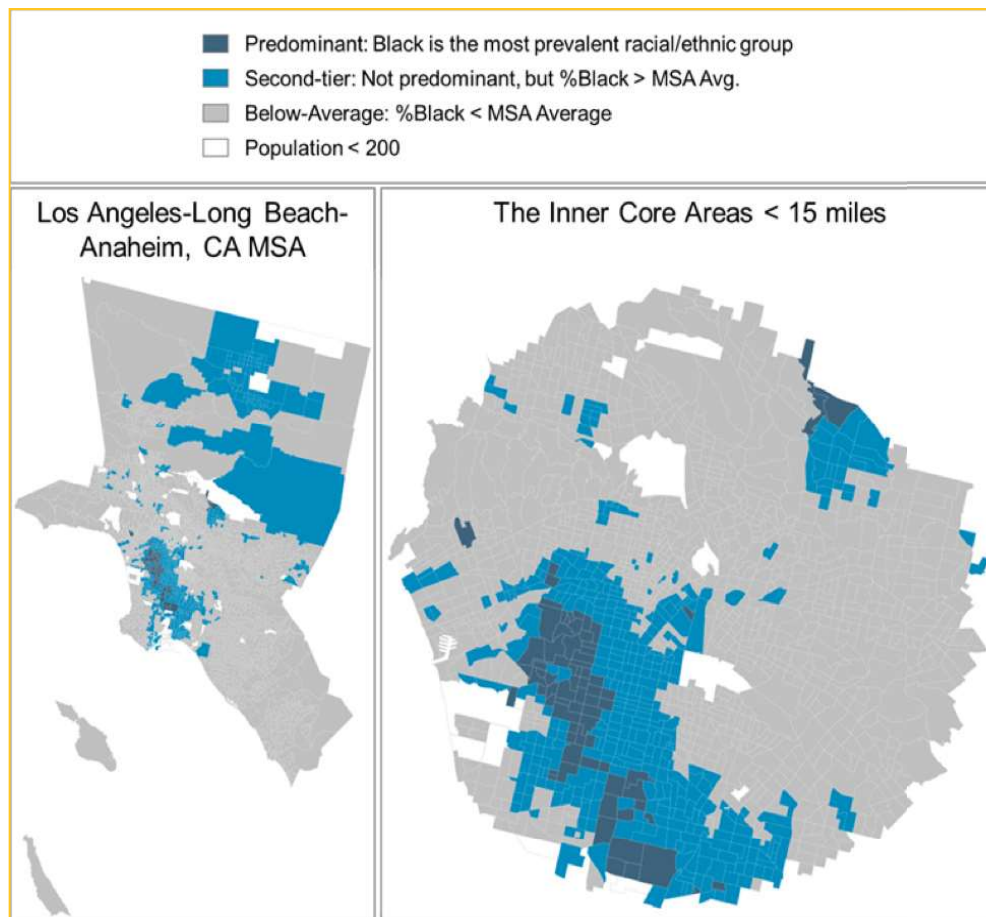
1. predominant neighborhoods where a group has a plurality or majority,
2. second-tier neighborhoods of above average prevalence, and
3. below-average neighborhoods of low prevalence.

For example, “predominant” Black neighborhoods refer to the neighborhoods in which Black population is more prevalent than any other racial/ethnic group (a plurality); “second-tier” Black neighborhoods include the area where Black share is not the most prevalent but greater than the MSA average (6.7% in 2010); “below-average” neighborhoods include all the rest, in which Black population share is less than the MSA average. We focus on communities of Black plurality or prevalence and those of Hispanic plurality or prevalence in this analysis. We excluded neighborhoods with less than 200 residents, either in 2010 or 2020, as their changes can have extreme percentages and most other tracts are in the range of 2,000 to 5,000 residents.

Black Prevalence and Changes in Communities

Exhibit 8 presents Black communities in the Los Angeles MSA in 2010, based on our groupings. Consistent with the public’s perception, most of the “predominant” Black communities were concentrated in core areas in Los Angeles County, including the large agglomeration southwest of downtown LA but also including suburbs of Inglewood and Carson, among others. Also visible is the Black community of Altadena above Pasadena. The “second-tier” Black communities include broader areas bordering the large swath of predominant neighborhoods, plus neighborhoods near downtown LA, the southern suburb of Compton, and parts of Pasadena, as well as the exurban neighborhoods in the far north of LA county, Palmdale and Lancaster.

Exhibit 8. Black Communities in the Los Angeles MSA in 2010.

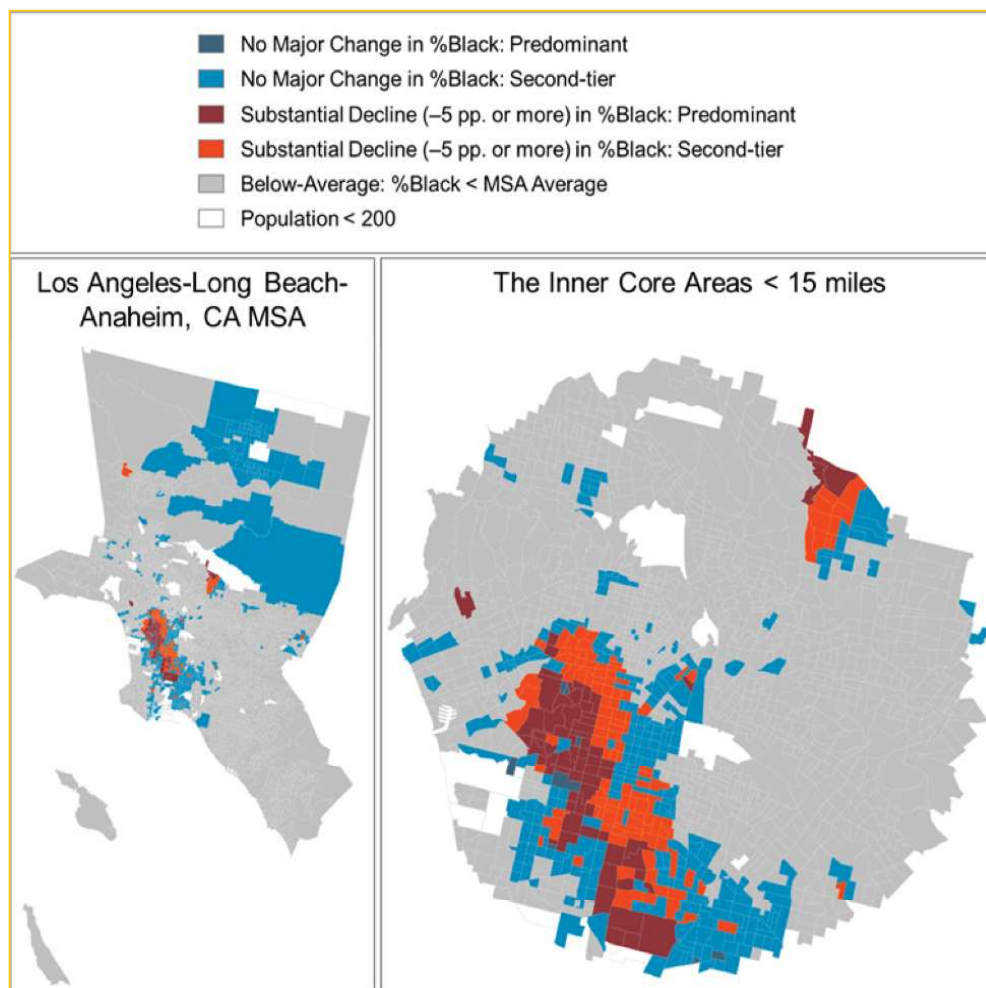


1. Modest decline in established Black communities and outward dispersal

As discussed above, the Black share very slightly declined in Los Angeles MSA (-0.6 percentage point), especially in the central area (-1.1 pp.), from 2010 and 2020. Against this backdrop of average change, we identify the census tracts of substantial decline (shares falling more than 5 pp.) in the “predominant” and “second-tier” Black communities. A total of 67 out of 76 predominantly Black areas experienced substantial decline, averaging -10.1 percentage points in all the predominant areas, with an average Black share of 62.2% at the beginning of the decade for those communities (Exhibit 10). In contrast, in the much more numerous second-tier communities of Black prevalence, only 123 out of 583 areas experienced substantial decline in Black share, averaging -2.6 percentage points in all the second-tier areas. The Black share rose 0.2 percentage points across the numerous (2,231) non-Black areas. Accordingly, although the declining Black share in predominant Black communities could be alarming, the overall picture is one of deconcentration of the Black population with reduced segregation and greater integration in the whole metro area.

In Exhibit 9 we map the location of areas of substantial decline, identifying the many predominantly Black neighborhoods in 2010 that experienced substantial decline in Black share by 2020. And we find that many second-tier Black neighborhoods that are geographically adjacent to the predominant Black neighborhoods also experienced similar, large decline in Black share. Overall, the number of Black residents in the neighborhoods within 15 miles from the city center declined by 60,000 during the decade, but the decline in the Black share is explained by shrinking, or displaced, Black population in those traditional enclaves.

Exhibit 9. Black Communities with Substantial Population Share Decline in the Los Angeles MSA in 2010–2020.



2. New replacements follow Black declines

While the Los Angeles metro and its central area witnessed declines in both absolute number and relative share of Black population in the 2010s, both areas experienced slight increases in the total population. This indicates that the decline of Black population was offset by increase of other racial/ethnic groups. Population share is a zero-sum process as decline in one racial/ethnic group's population share implies gain in another racial/ethnic group's share (in order to maintain 100% total). We cannot know the reasons for Black decrease or gains by other groups (but we examine local housing prices in a later section). A first step is to inquire which racial/ethnic group gained the most in those traditionally Black communities that experienced substantial decline in Black population share. (A later step will inquire about the neighborhoods where Black population has increased.)

The racial/ethnic group that increased the most is referenced as the "top gainer," and we map their spatial distribution on top of the established community of 10 years earlier. For example, suppose that a neighborhood experienced substantial decline in the share of Black population, say 11 percentage points, from 2010 to 2020. In the neighborhood, if non-Hispanic white share increased by 6 percentage points and Hispanic by 5 percentage points, we would term non-Hispanic whites as top gainers in the neighborhood. However, in any specific census tract it is most often a single race/ethnic group that accounts for the bulk of the replacement population. Exhibit 10 presents changes in racial/ethnic composition in the Black communities, and Exhibit 11 shows the geographic distribution of the "top gainers" in the area.

Exhibit 10. Racial/Ethnic Changes in Black Communities in the Los Angeles MSA, 2010-2020

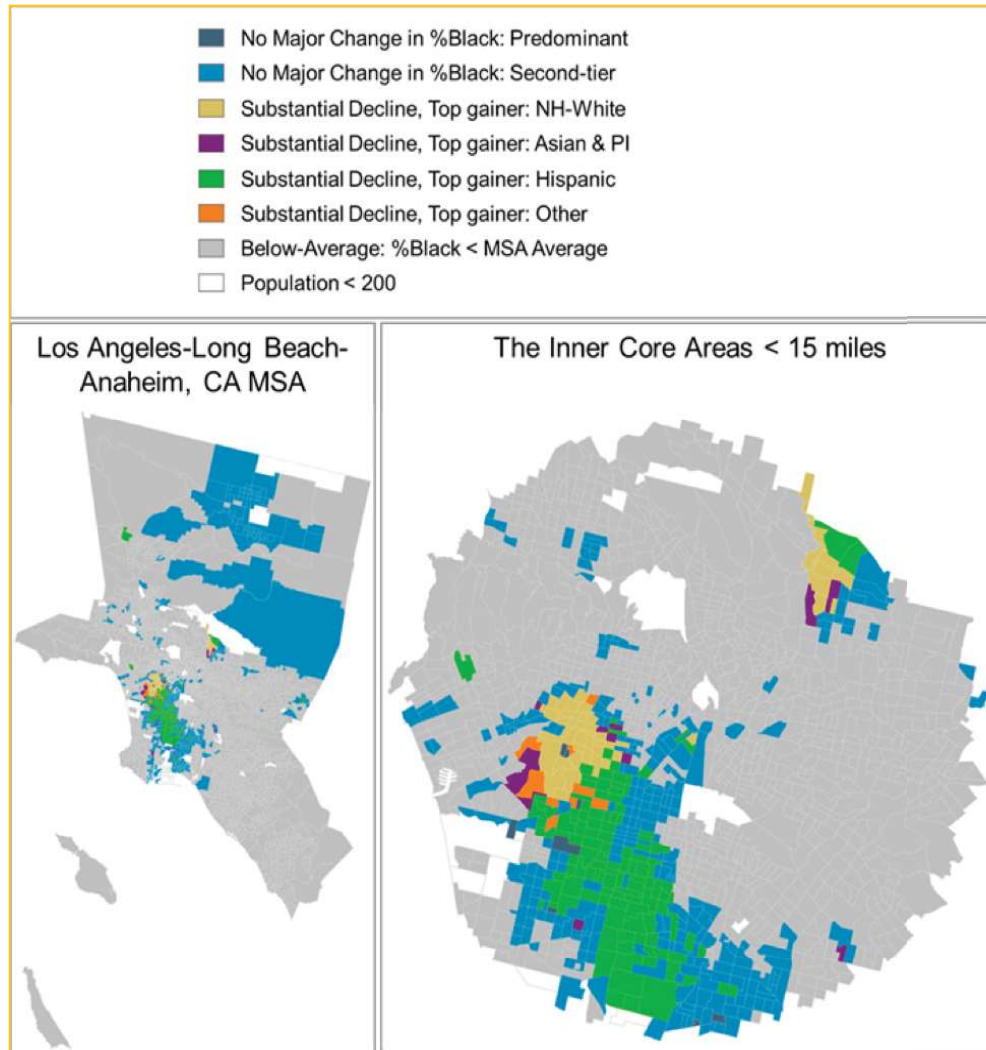
	N of Tracts	%Black			%White		
		2010	2020	Diff.	2010	2020	Diff.
LOS ANGELES MSA	2,890	6.8	6.2	-0.6	32.2	28.8	-3.4
Predominant	76	62.2	52.1	-10.1	5.8	7.8	2.0
Substantial Increase in %Black	0	-	-	-	-	-	-
No or Minor Changes	9	50.8	48.4	-2.4	7.8	8.0	0.2
Substantial Decline in %Black	67	63.8	52.6	-11.2	5.6	7.8	2.2
Top gainer: NH-White	13	62.5	50.2	-12.3	8.5	14.9	6.4
Top gainer: Asian & PI	1	49.4	33.2	-16.2	20.1	24.7	4.6
Top gainer: Latino	48	64.2	53.3	-11.0	4.6	5.7	1.1
Top gainer: Other	5	65.2	56.2	-9.0	4.1	6.2	2.1
2ND TIER	583	17.3	14.7	-2.6	17.6	16.0	-1.6
Substantial Increase in %Black	29	13.3	17.8	4.5	26.9	24.2	-2.7
No or Minor Changes	431	13.9	12.3	-1.6	20.0	17.7	-2.4
Substantial Decline in %Black	123	30.1	22.4	-7.7	6.7	8.3	1.6
Top gainer: NH-White	31	29.5	21.1	-8.5	9.2	15.0	5.8
Top gainer: Asian & PI	13	24.3	18.0	-6.3	18.3	16.0	-2.3
Top gainer: Latino	75	31.4	23.8	-7.7	2.7	3.3	0.6
Top gainer: Other	4	27.7	21.8	-5.9	24.6	24.6	0.0
NON-BLACK	2,231	2.2	2.4	0.2	36.9	32.9	-4.0
Substantial Increase in %Black	37	3.7	7.7	3.9	29.3	26.9	-2.3
No Change or Decline in %Black	2,194	2.2	2.3	0.1	37.1	33.0	-4.1

Exhibit 10. Racial/Ethnic Changes in Black Communities in the Los Angeles MSA, 2010-2020

	N of Tracts	%Asian			%Hispanic		
		2010	2020	Diff.	2010	2020	Diff.
LOS ANGELES MSA	2,890	14.3	15.9	1.5	44.1	45.1	1.0
Predominant	76	3.1	3.9	0.7	25.7	30.9	5.2
Substantial Increase in %Black	0	-	-	-	-	-	-
No or Minor Changes	9	4.4	4.2	-0.3	33.4	34.4	1.0
Substantial Decline in %Black	67	3.0	3.8	0.9	24.7	30.4	5.7
Top gainer: NH-White	13	6.4	6.9	0.5	18.4	21.0	2.6
Top gainer: Asian & PI	1	11.3	18.0	6.6	14.4	15.7	1.2
Top gainer: Latino	48	2.0	2.8	0.8	26.5	33.5	7.0
Top gainer: Other	5	1.7	2.6	0.9	25.6	28.4	2.8
2ND TIER	583	9.5	10.1	0.6	53.2	55.3	2.1
Substantial Increase in %Black	29	11.1	10.8	-0.3	45.6	42.4	-3.2
No or Minor Changes	431	10.9	11.4	0.5	52.6	54.7	2.1
Substantial Decline in %Black	123	4.0	5.2	1.2	57.2	60.6	3.4
Top gainer: NH-White	31	5.2	6.6	1.4	53.2	52.4	-0.8
Top gainer: Asian & PI	13	10.8	16.5	5.7	43.8	45.4	1.6
Top gainer: Latino	75	2.0	2.3	0.3	62.3	67.9	5.6
Top gainer: Other	4	8.9	10.4	1.4	35.0	36.5	1.5
NON-BLACK	2,231	16.0	17.8	1.8	42.4	42.9	0.5
Substantial Increase in %Black	37	25.0	22.5	-2.5	39.3	38.6	-0.6
No Change or Decline in %Black	2,194	15.8	17.7	1.9	42.4	43.0	0.5

Source: Authors' analysis based on the decennial Censuses 2010 and 2020.

Exhibit 11. Top Gainers in the Black Communities With Substantial Population Share Decline in the Los Angeles MSA in 2010–2020.



When we analyze the spatial patterns of such top gainers, we identify two key patterns. First, we see a cluster of neighborhoods that were Black communities (either “predominant” or “second-tier”) and experienced substantial increase in non-Hispanic white share, mostly along the I-10 and I-405 freeways, and west of Western Avenue, including Inglewood, Baldwin Village, and View Park-Windsor Hills, among others (Exhibit 11). The same pattern of white influx has occurred in the western part of Altadena or in Pasadena, as well. The pattern is consistent with media reports about gentrification in these neighborhoods.³ We address this more in the discussion of house prices in a following section.

Second, there was another large cluster of Black neighborhoods that saw substantial increase in Latino population. These are generally located in South Los Angeles, such as West Athens, West Compton, Willowbrook, and Carson. The pattern reflects racial/ethnic turnover in South Los Angeles from Latino to Black, which has been observed for several decades (Hondaguenue-Sotelo and Pastor 2021). In addition, there are scattered neighborhoods where Asian population is the top gainer in the presence of Black decline and also a few where “other” racial groups (multiracial or Native American/indigenous) provided the most growth.

3. Outward spread of Black residents

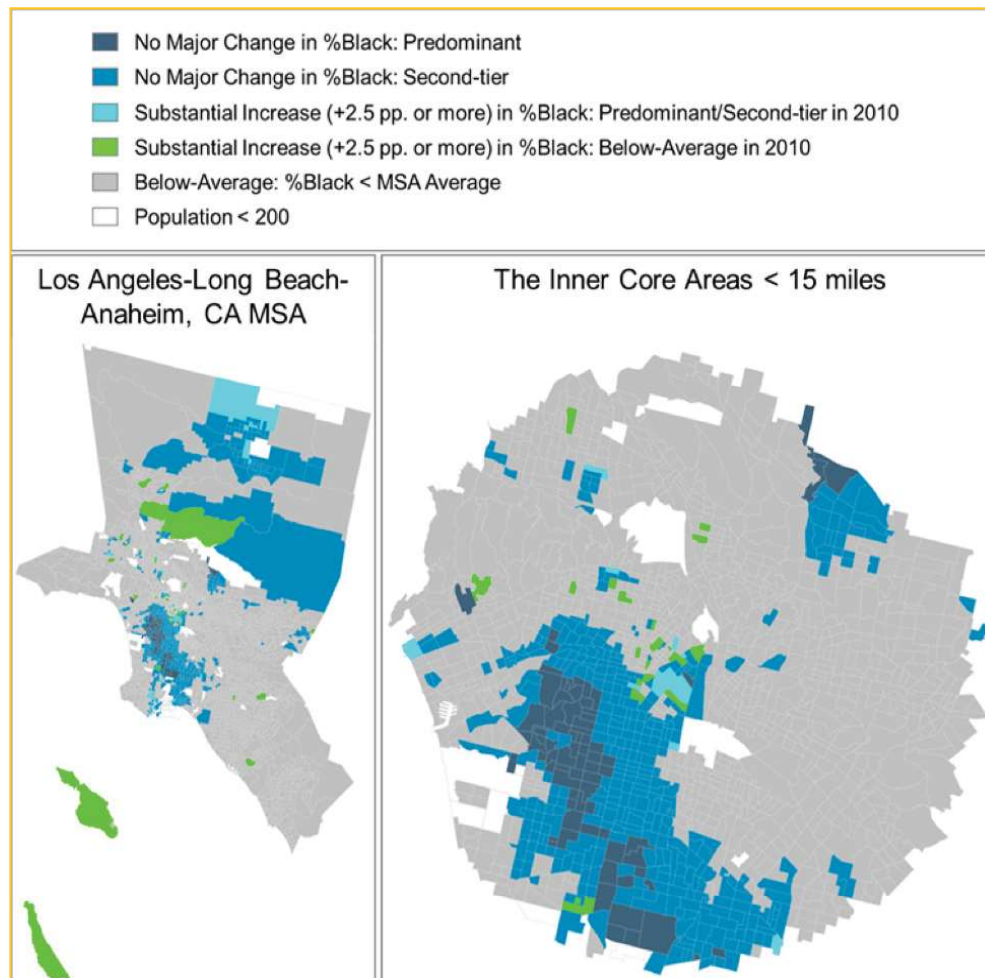
With the Black population holding fairly constant in total within the LA metro, and given the substantial declines in concentrated areas of Black residence, where then did Black residents relocate within the

³Erika D. Smith, “To protect South L.A. ‘Don’t sell your damn house!’” *Los Angeles Times*, A1, October 24, 2021.

metro? We can identify the neighborhoods, either previously Black neighborhoods or not, in which the Black population share has increased by 2.5 percentage points (Exhibit 12). If we can find many dispersed areas with such growth of Black population share, it could be indicative of greater racial/social integration in the broader Los Angeles metro. The map shown below highlights areas near downtown LA, especially right north of the I-10 highway. Exurbs like Lancaster and Palmdale also saw substantial increases of Black population share.

However, this Black exodus from established communities appears to be thinly spread far and wide. Compared to the prevalence of Black tracts experiencing substantial decline of Black share, the number of tracts with substantial growth of Black population share is fewer than expected. An explanation is that Black residents have relocated to a larger number of areas with even lower Black concentration share—less than 2.5% Black.

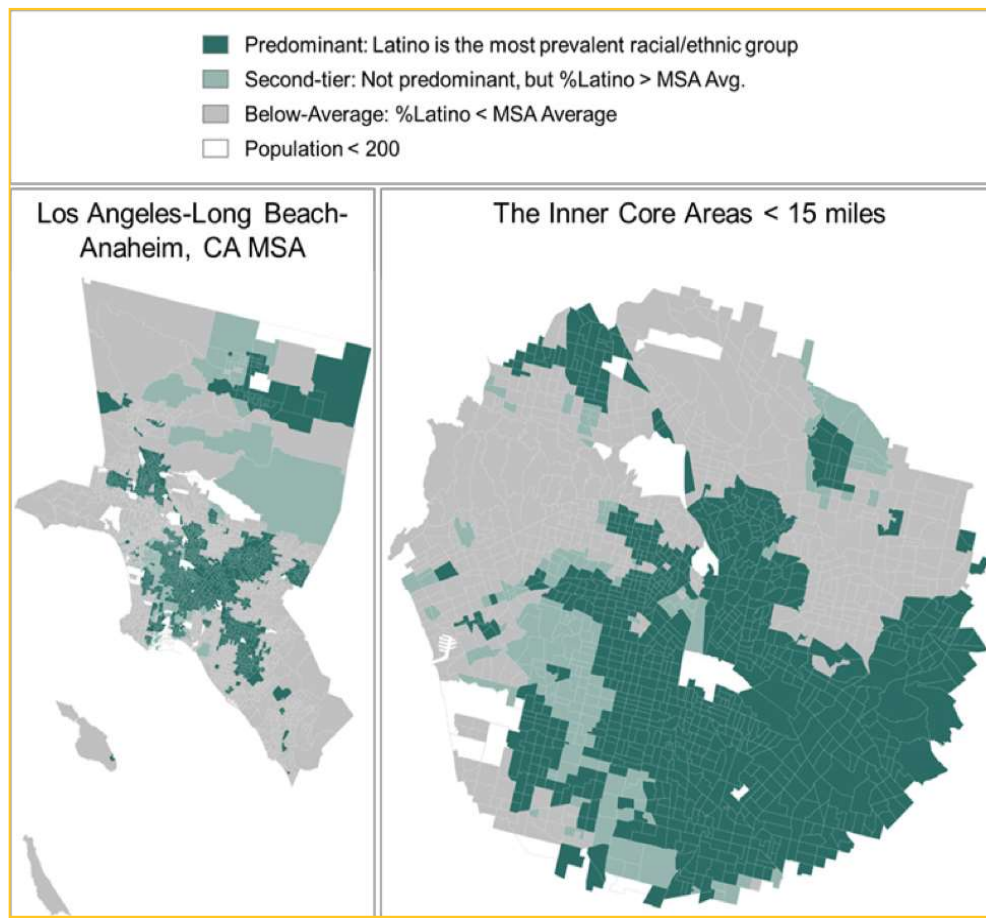
Exhibit 12. Communities With Substantial Black Population Share Increase in the Los Angeles MSA in 2010–2020.



Hispanic or Latino Prevalence and Changes in Communities

A similar analysis deserves to be conducted for Latino population in the Los Angeles metro, identifying “predominant” and “second-tier” Latino communities in 2010. A key difference is that the Latino population is 7 times larger than the Black population and so it prevails over a much larger area. Exhibit 13 presents a spatial display of the categorization. Given their population share in the Los Angeles MSA (44.4%) and central area (50.8%) in 2010, it would be not surprising to see many neighborhoods in which Latino population is the predominant racial/ethnic group or, if not the most prevalent group, still had a prevalence higher than the MSA average. The “prevalent” Latino neighborhoods include a great many neighborhoods in downtown Los Angeles, Echo Park, East Los Angeles, Pasadena, Sun Valley, among others.

Exhibit 13. Latino Communities in the Los Angeles MSA in 2010.



1. Modest decline in established Latino communities

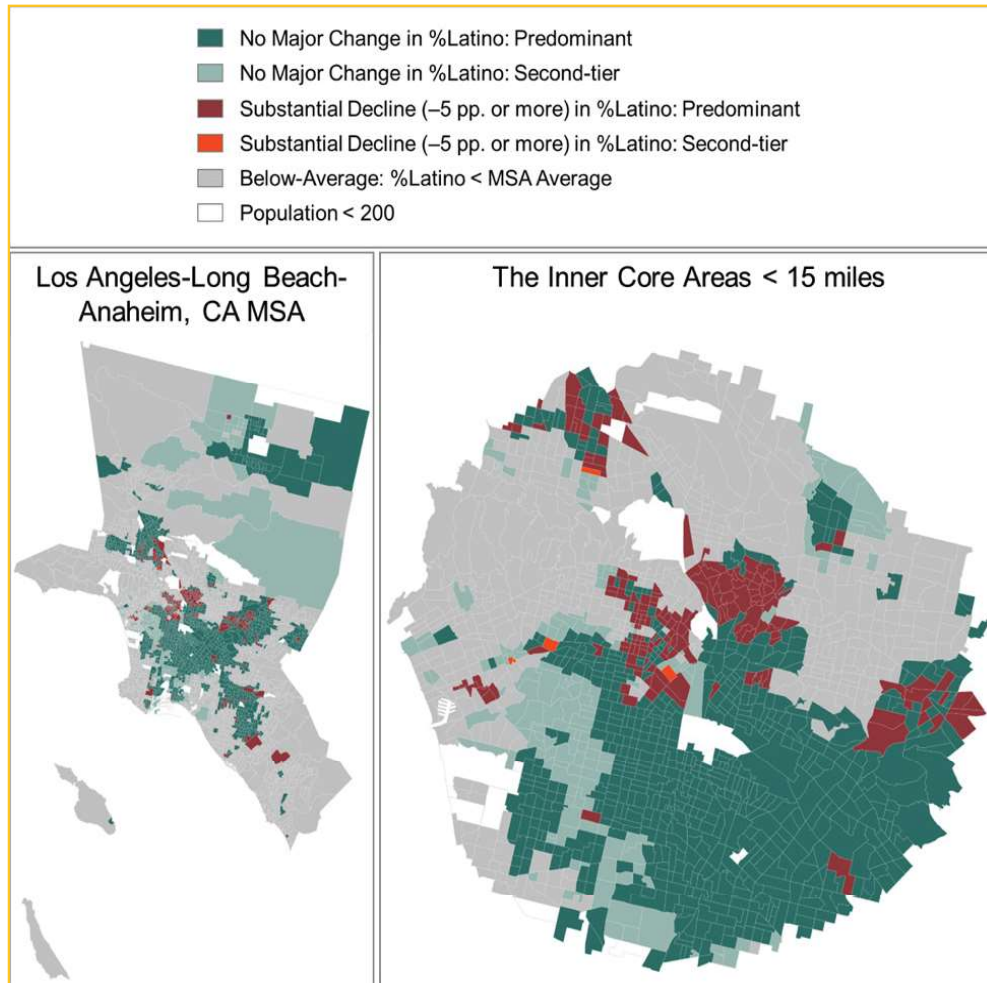
As with other communities, Latino communities also saw noteworthy changes in their demographic make-up during the 2010s (Exhibit 14). As before, we identify those “predominant” and “second-tier” Latino communities in 2010 that experienced substantial decline in their share. Different than Black communities in Los Angeles, Latino share has declined mainly along the northern fringe of its predominant areas. We can identify clusters of such neighborhoods to the north and west of Downtown Los Angeles—Echo Park-Silver Lake-Los Feliz, Highland Park-Cypress Park, Normandie/Olympic. Also prominent are changes in the San Fernando valley to the northwest and in the San Gabriel valley to the east.

2. New replacements following Latino declines

When we analyze which racial/ethnic group gained the most in those Latino communities that experienced substantial decline in their share, we could see that it was mostly non-Hispanic whites. Of the 234 “predominant” and “second-tier” Latino neighborhoods that experienced substantial decline, 140 or about 60% were receiving non-Hispanic Whites as the principal gainers and another 32% were receiving Asian Americans as the principal gainers.

Notably, gentrifying neighborhoods in Highland Park, Echo Park, and eastern San Fernando Valley experienced substantial increase in their white share, while several communities in Koreatown and the eastern San Gabriel Valley, as well as pockets in south Los Angeles County and Orange County, saw increases in their share of Asian and Pacific Islander people. The full pattern of replacements is given in Exhibit 15 and Exhibit 16.

Exhibit 14. Latino Communities with Substantial Population Share Decline in the Los Angeles MSA in 2010–2020.



3. Consolidation and spread of Latino residents

If Latinos left areas where they predominate, where else did they move to inside the metro? We also analyze where the Latino share increased by 2.5 percentage points or greater in the Los Angeles MSA. The resulting map looks very different from that for Blacks in Los Angeles MSA, as 44% (546) of the below average Latino neighborhoods in the Los Angeles metro experienced such growth (Exhibit 17). The most extensive areas of increase lie in Orange County. What is interesting is there was virtually no change in the Latino share in the Los Angeles MSA overall from 2010 to 2020 (+0.2 pp.), although the share declined from 50.8% to 49.9% in the central areas. Nonetheless, in the central core of the LA metro the Latino population tended to increase its share in the vast district to the south of downtown LA in which it already predominated. In this view, the Latino population has consolidated in its densest concentrations, even as it has spread its growth to new outlying areas. In sum, while the Latino share in the metro as a whole held constant, Latino share of residents was trimmed down in the northern range of Latino predominance by growing white and Asian prevalence (Exhibit 16), while Latino share was increased in a middle zone of existing Latino predominance in southern LA county (Exhibit 17), and in addition Latino share was strengthened in nearly half the outlying areas of below average Latino prevalence.

Exhibit 15. Racial/Ethnic Changes in Latino Communities in the Los Angeles MSA, 2010-2020

	N of Tracts	%Hispanic			%White		
		2010	2020	Diff.	2010	2020	%Chg.
Los Angeles MSA	2,890	44.1	45.1	1.0	32.2	28.8	-3.4
Predominant	1,444	69.3	68.8	-0.6	12.4	11.5	-0.9
Substantial Increase in %Latino	354	58.7	64.2	5.5	17.6	13.0	-4.6
No or Minor Changes	860	73.5	72.6	-0.9	10.2	9.7	-0.6
Substantial Decline in %Latino	230	70.2	61.7	-8.5	12.2	15.9	3.6
Top gainer: NH-White	136	68.4	59.8	-8.6	14.2	20.2	6.0
Top gainer: Black	12	71.9	63.0	-8.9	9.7	11.3	1.6
Top gainer: Asian & PI	76	74.8	66.4	-8.4	7.4	7.3	-0.2
Top gainer: Other	6	50.5	43.2	-7.3	33.3	35.3	2.0
2nd Tier	213	24.3	27.9	3.6	29.2	27.3	-1.9
Substantial Increase in %Latino	134	24.0	30.1	6.1	25.8	22.8	-3.0
No or Minor Changes	75	24.4	24.2	-0.2	35.4	34.7	-0.6
Substantial Decline in %Latino	4	31.6	24.9	-6.7	28.3	36.4	8.1
Top gainer: NH-White	4	31.6	24.9	-6.7	28.3	36.4	8.1
Top gainer: Black	0	-	-	-	-	-	-
Top gainer: Asian & PI	0	-	-	-	-	-	-
Top gainer: Other	0	-	-	-	-	-	-
Non-Latino	1,233	18.0	20.3	2.3	56.0	49.4	-6.6
Substantial Increase in %Latino	546	19.0	23.8	4.8	57.6	48.8	-8.8
No Change or Decline in %Latino	687	17.2	17.6	0.4	54.7	49.9	-4.8

	N of Tracts	%Black			%Asian		
		2010	2020	Diff.	2010	2020	%Chg.
Los Angeles MSA	2,890	6.8	6.2	-0.6	14.3	15.9	1.5
Predominant	1,444	7.4	6.6	-0.8	9.3	10.6	1.3
Substantial Increase in %Latino	354	13.5	11.1	-2.4	8.1	8.6	0.5
No or Minor Changes	860	5.9	5.3	-0.6	8.9	10.2	1.2
Substantial Decline in %Latino	230	3.5	4.4	0.9	12.5	15.1	2.6
Top gainer: NH-White	136	3.0	3.7	0.7	12.7	12.9	0.2
Top gainer: Black	12	8.8	14.5	5.7	7.7	8.0	0.3
Top gainer: Asian & PI	76	3.5	3.7	0.2	13.2	20.7	7.5
Top gainer: Other	6	5.2	6.9	1.7	8.5	9.3	0.8
2nd Tier	213	29.6	25.3	-4.3	13.2	13.6	0.4
Substantial Increase in %Latino	134	35.7	30.2	-5.4	10.9	11.2	0.3
No or Minor Changes	75	19.5	17.2	-2.2	16.9	17.6	0.7
Substantial Decline in %Latino	4	16.8	13.8	-3.0	19.0	18.4	-0.6
Top gainer: NH-White	4	16.8	13.8	-3.0	19.0	18.4	-0.6
Top gainer: Black	0	-	-	-	-	-	-
Top gainer: Asian & PI	0	-	-	-	-	-	-
Top gainer: Other	0	-	-	-	-	-	-
Non-Latino	1,233	2.2	2.4	0.2	20.4	22.4	2.1
Substantial Increase in %Latino	546	2.5	2.7	0.2	17.5	19.1	1.7
No Change or Decline in %Latino	687	2.0	2.2	0.1	22.7	25.1	2.4

Source: Authors' analysis based on the decennial Censuses 2010 and 2020. [corrected]

Exhibit 16. Top Gainers in the Latino Communities With Substantial Population Share Decline in the Los Angeles MSA in 2010–2020.

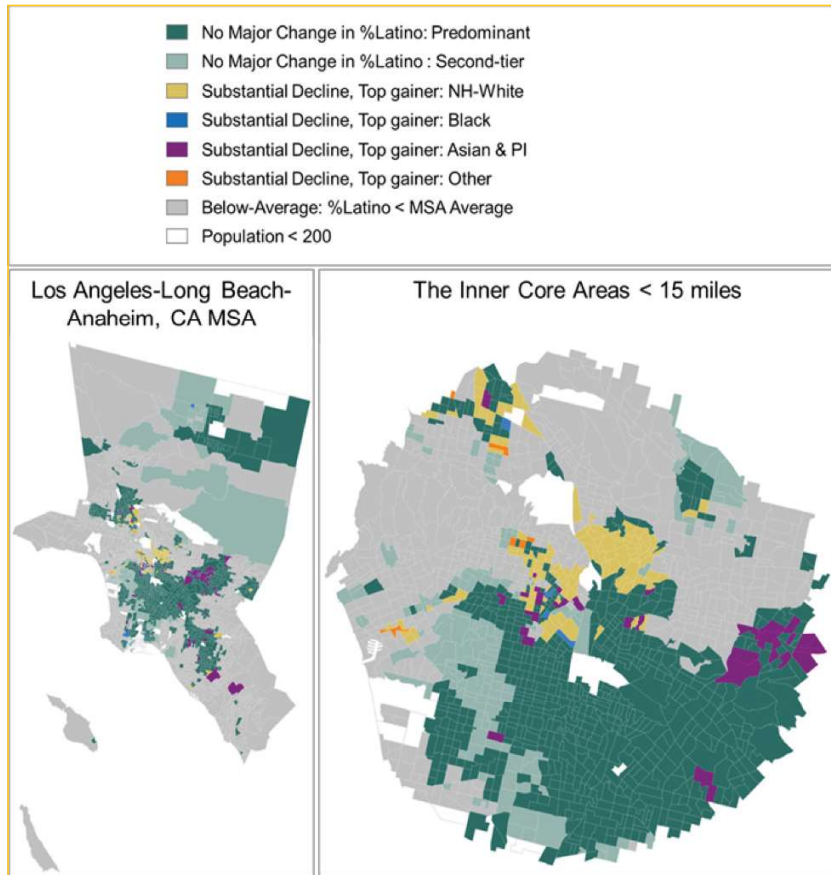
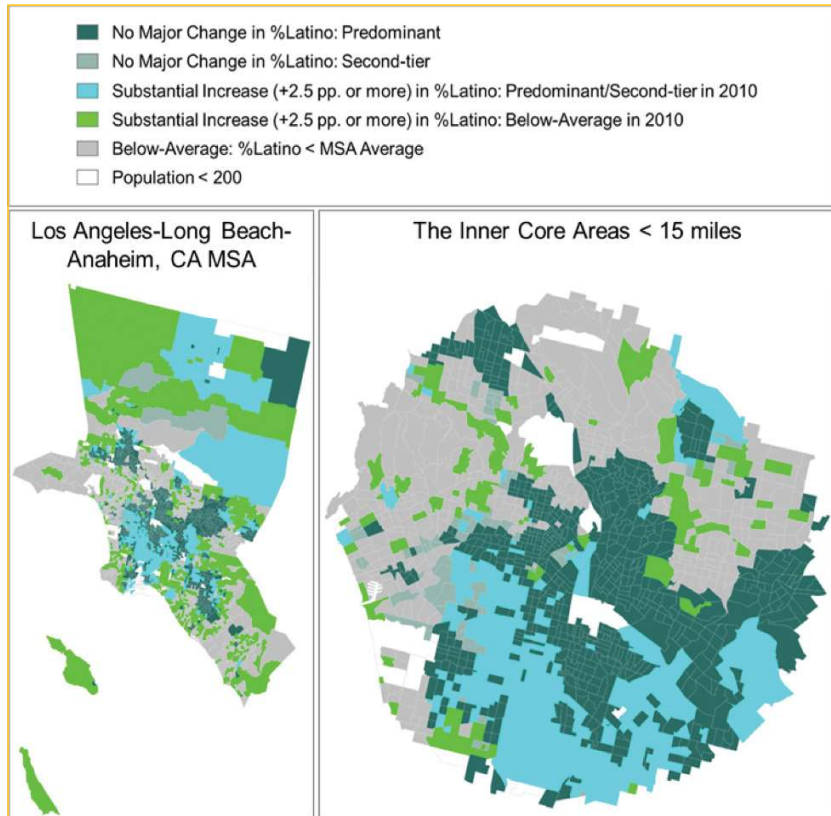


Exhibit 17. Communities With Substantial Latino Population Share Increase in the Los Angeles MSA in 2010–2020.



HOUSING PRICES AND COMPETITION FOR SPACE IN LOS ANGELES

A primary way that competition for space is mediated is through housing prices, but those are not the sole factor. Social networks are important for sharing information about housing opportunities, and social proximity is a strong attribute that can make housing more valuable to one person or group than another. In evaluating the role of housing price, we should view it in this broader context.

It bears emphasis that we have no knowledge of the true motivations for why people leave a neighborhood or move into another, or what these dynamics mean to the residents who seek to stay in place. Deep interviews are required for such information. In this study we are only able to observe statistical summaries and make reasoned interpretations that cannot exceed the bounds of known information.

Prices in general mean something different to homeowners than rents mean to renters. The financial transactions, of course, are completely different. But the real cost of housing also differs. Rent is payment for the user value of monthly services, while purchase price represents an expectation of a sum of the “user value” of shelter services plus expected returns on investment (the “investment value”). The latter rests on beliefs about recent and projected trends, which attracts investors for owner-occupancy as well as for rental property. These differences enter into interpretations we will give to findings from the data analysis that follows.

Our neighborhood-level analysis of recent changes in communities of color is augmented with census tract data on reported rents and house values that are collected through the Census Bureau’s American Community Survey (ACS). We will analyze the median rent and value in 2010 and 2019, focusing on both housing costs at the beginning of the decade and changes over the decade.⁴ When a group of tracts are combined for comparisons, the reported housing values and gross rents are averages of the median values and gross rents of each neighborhood type, and dollar figures are not inflation adjusted – they are reported as nominal 2010 and 2019 dollars, respectively.

Analysis is in two stages, first addressing community differences in prices at the beginning of the decade, showing how those prices relate to subsequent population changes. In a second stage we assess how changes in house values and rents over the decade correlate with simultaneous changes in population.

1. Relative prices in 2010 and later Black community change

House values and rents for different communities of color are summarized in Exhibits 18 and 21. A graphic portrayal focusing on 2010 variations across Black neighborhoods is found in Exhibit 19 (house values) and Exhibit 20 (rents). One overarching finding is that rents in Black areas are lower than the MSA average, while house values are sometimes above the average, because rents reflect only the user value of the quality and size of the unit, while house values also include investment value of land and location. The most striking feature is that Black communities of color that later received substantial white and Asian growth already had higher housing prices and rents in 2010. This suggests that white and Asian in-movers selected neighborhoods that were priced higher as a reflection of their locational advantages and/or the quality of their housing stock. Inspection of Exhibit 11, shown earlier, shows that many of the formerly mostly Black tracts where whites are top gainers are clustered closest to the expensive westside of LA, Culver City, and the Expo light rail to Santa Monica, USC, and downtown LA. This premium location commanded a premium price in 2010. Some neighboring Black tracts also drew in Asians as the major group of new residents.

In contrast, the many Black neighborhoods further to the south were relatively low-opportunity neighborhoods, commanded lower prices than in the northern end of Black South LA, and drew in Latinos as the leading new residents (Exhibit 11). Nonetheless, these Latino new residents also selected neighborhoods with higher house prices than the ones retained by the Black neighborhoods without population change (see Exhibit 19).

⁴ The ACS information is collected over 5 consecutive years to ensure a large enough sample size by the final year. Thus, the 2010 data are drawn from 2006 to 2010 and the 2019 data are drawn from 2015 to 2019. The resulting estimates lag the reported year and generally are lower than current rents or values. They also represent estimates by the occupants and are generally lower than current asking prices or recent contracts. For present purposes what is important is that the data afford a reliable, relative measurement for comparing locations, and the Census Bureau data excel for their quality of relative representation.

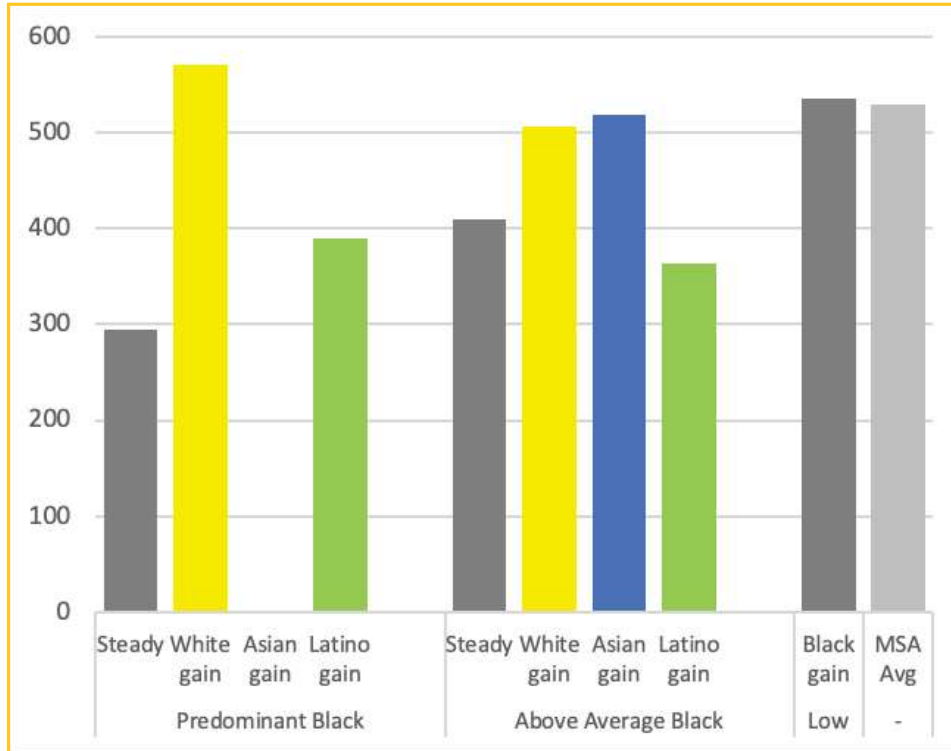
A final observation about house prices and rents in the greater Black community is that housing costs are lowest in the predominantly Black areas that remained without population change and rose steadily as the Black share came closer to average for the MSA (Exhibits 19 and 20). This indicates that dispersal outward from the core of the Black community came with the requirement of paying higher housing costs.

Exhibit 18. Changes in the Housing Prices in Black Communities in the Los Angeles MSA, 2010-2020

	N of Tracts	Value (in \$1,000s)			Gross Rent		
		2010	2020	Diff.	2010	2020	%Chg.
LOS ANGELES MSA	2,890	530	647	22.2	1,286	1,694	31.7
Predominant	76	428	511	19.4	1,022	1,361	33.2
Substantial Increase in %Black	0	-	-	-	-	-	-
No or Minor Changes	9	295	371	25.9	901	1,132	25.6
Substantial Decline in %Black	67	438	524	19.6	1,038	1,392	34.1
Top gainer: NH-White	13	570	701	22.9	1,079	1,526	41.5
Top gainer: Asian & PI	1	490	607	24.0	1,611	2,036	26.4
Top gainer: Latino	48	390	458	17.5	1,012	1,346	33.0
Top gainer: Other	5	557	694	24.6	1,059	1,353	27.7
2ND TIER	583	414	479	15.8	1,084	1,393	28.5
Substantial Increase in %Black	29	428	500	16.6	1,021	1,270	24.3
No or Minor Changes	431	410	471	14.8	1,111	1,425	28.2
Substantial Decline in %Black	123	423	503	19.0	1,003	1,310	30.7
Top gainer: NH-White	31	506	684	35.3	1,002	1,374	37.1
Top gainer: Asian & PI	13	518	609	17.5	1,168	1,531	31.0
Top gainer: Latino	75	364	402	10.3	961	1,226	27.5
Top gainer: Other	4	557	626	12.4	1,319	1,714	29.9
NON-BLACK	2,231	563	695	23.4	1,347	1,784	32.4
Substantial Increase in %Black	37	536	640	19.4	1,075	1,464	36.1
No Change or Decline in %Black	2,194	563	696	23.4	1,352	1,789	32.4

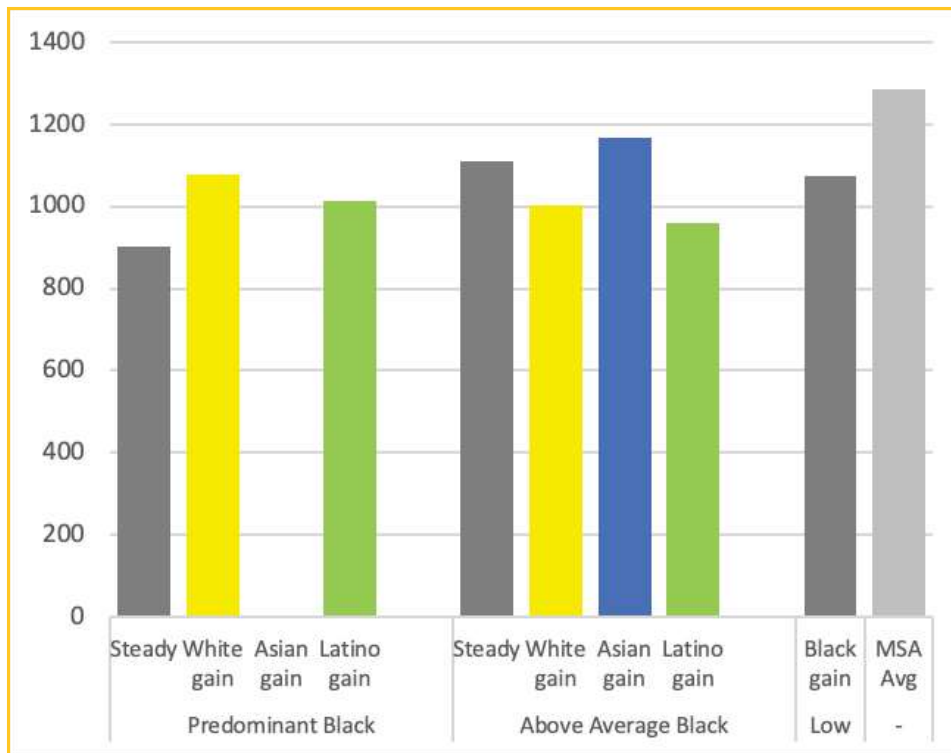
Source: Authors' analysis based on the decennial Censuses 2010 and 2020; 2006–2010 and 2015–2019 American Community Survey 5-year estimates. Note: Dollar figures are in 2010 dollars and 2019 dollars, respectively.

Exhibit 19. Median Home Value of Black Neighborhood in 2010 Relative to Subsequent Population Change (value in 1000's of 2010\$)



Source: Exhibit 18

Exhibit 20. Median Rent of Black Neighborhood in 2010 Relative to Subsequent Population Change (gross rent in 2010\$)



Source: Exhibit 18

2. Relative prices in 2010 and later Latino community change

A similar analysis of housing costs can be made that is focused on the much larger Hispanic or Latino community. Half of all the census tracts in the Los Angeles MSA are predominantly Latino. And many more tracts experienced an increase than a decrease in Latino residents.

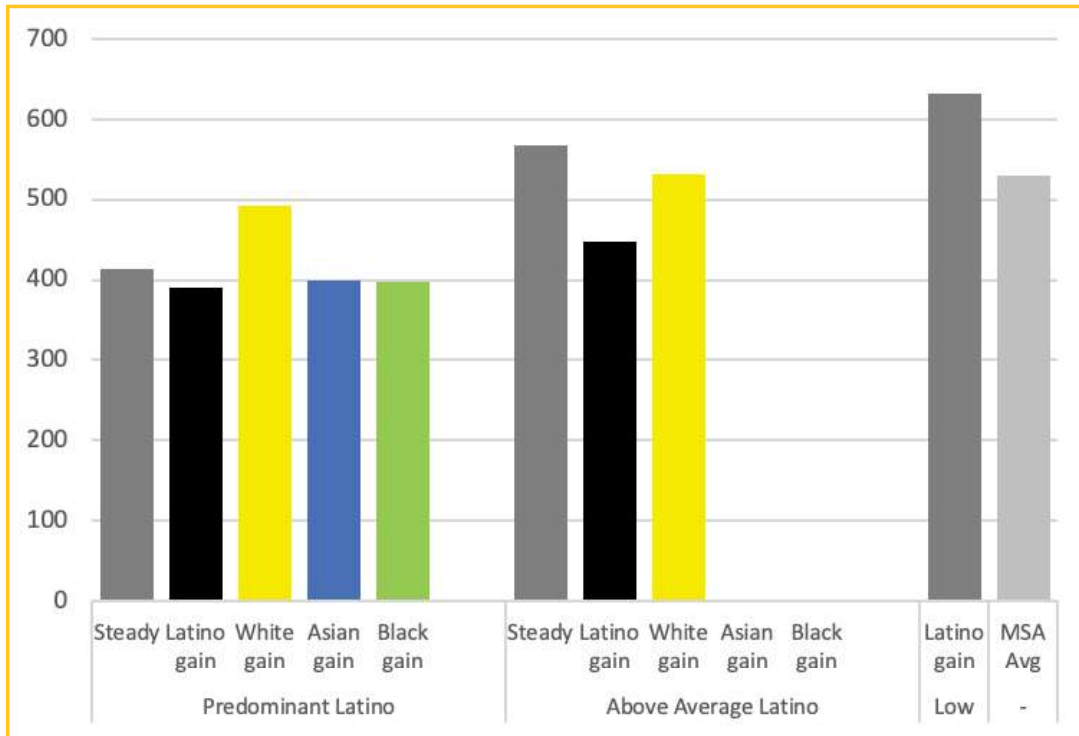
An overall summary of changes in Latino neighborhoods is found in Exhibit 21, and graphic displays of housing costs and subsequent community change are provided in Exhibit 22 (house values) and Exhibit 23 (rents). The first major finding, as with the Black community, is that house values and rents are progressively higher in the Latino community as we proceed from neighborhoods that are predominantly Latino to neighborhoods with average and below average concentrations of Latino residents. Also noteworthy is that Latino tracts receiving gains in Latino population were somewhat more affordable than ones remaining steady in their Latino share. And once again, as with the Black community, predominantly Latino tracts that later drew increased white residents had substantially higher house values (although not rents) in 2010. Referring back to Exhibit 16, we see the white influx is concentrated north and west of Downtown LA, areas such as Highland Park or Echo Park, premium locations now gentrifying. Dynamics of this racial and generational turnover are described in Myers and Moctezuma (2021).

Exhibit 21. Changes in the Housing Prices in the Latino Communities in the Los Angeles MSA, 2010-2020

	N of Tracts	Value (in \$1,000s)			Gross Rent		
		2010	2020	Diff.	2010	2020	%Chg.
LOS ANGELES MSA	2,890	530	647	22.2	1,286	1,694	31.7
Predominant	1,444	414	476	14.8	1,088	1,390	27.8
Substantial Increase in %Latino	354	391	434	11.1	1,149	1,443	25.6
No or Minor Changes	860	413	468	13.2	1,081	1,378	27.5
Substantial Decline in %Latino	230	458	576	25.9	1,018	1,354	33.0
Top gainer: NH-White	136	492	638	29.5	978	1,329	35.9
Top gainer: Black	12	398	437	9.8	789	1,077	36.5
Top gainer: Asian & PI	76	399	471	18.1	1,123	1,435	27.8
Top gainer: Other	6	505	697	38.1	1,027	1,389	35.2
2ND TIER	213	489	596	21.7	1,199	1,583	32.0
Substantial Increase in %Latino	134	448	521	16.4	1,168	1,506	28.9
No or Minor Changes	75	567	735	29.7	1,247	1,707	36.9
Substantial Decline in %Latino	4	532	692	30.3	1,282	1,814	41.5
Top gainer: NH-White	4	532	692	30.3	1,282	1,814	41.5
Top gainer: Black	0	-	-	-	-	-	-
Top gainer: Asian & PI	0	-	-	-	-	-	-
Top gainer: Other	0	-	-	-	-	-	-
NON-LATINO	1,233	670	853	27.3	1,536	2,076	35.1
Substantial Increase in %Latino	546	631	749	18.6	1,523	2,038	33.8
No Change or Decline in %Latino	687	701	934	33.2	1,547	2,105	36.1

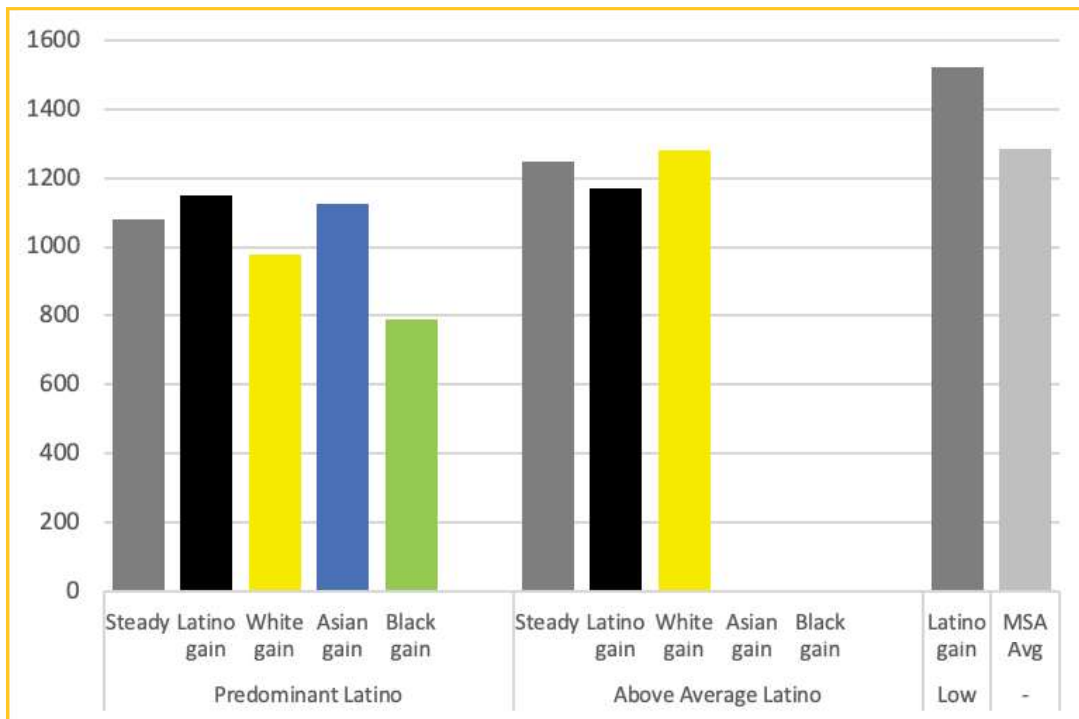
Source: Authors' analysis based on the decennial Censuses 2010 and 2020; 2006–2010 and 2015–2019 American Community Survey 5-year estimates. Note: Dollar figures are in 2010 dollars and 2019 dollars, respectively.

Exhibit 22. Median Home Value of Latino Neighborhood in 2010 Relative to Subsequent Population Change (value in 1000's of 2010\$)



Source: Exhibit 21

Exhibit 23. Median Rent of Latino Neighborhood in 2010 Relative to Subsequent Population Change (gross rent in 2010\$)



Source: Exhibit 21

CONCLUSION

This report has incorporated two interrelated changes over the last decade, one the transformation in concentration and location of communities of color, and second, a set of processes regarding changes in housing prices and access to housing for people below the median income. Despite highly limited local-level data we were able to link together outcomes of the two processes, but this research provides only a partial view of the deep dynamics.

Our first section addressed filtering, the process by which an aging housing stock passes from higher to lower socioeconomic groups. The filtering process provides housing opportunities that have been termed “naturally occurring affordable housing,” benefits supplied without need for housing subsidies that would be massive in view of the quantity of housing need. However, research reported here found that rental housing, in particular, was blocked from this process in the last decade compared to earlier decades, especially in California’s large metropolitan areas, but also nationwide. In the last decade, filtering has actually reversed in rentals, shifting housing upward to slightly higher income groups rather than downward, as was the norm in the 2000s and earlier decades. This pathway to housing opportunity has been blocked in California, likely because of the severe shortage of apartment construction since 1990 in California but also in light of the burgeoning demand placed by the Millennial generation passing through its 20s.

An unexpected finding, however, is that filtering among homeowners has proceeded more steadily over the decades, with increasing occupancy by households whose income lies below the household median for their metro. This was especially true in the vintage built from 1980 to 1999. Explanations for this surprising finding cannot yet be determined. The leading hypothesis is that homeowners are aging in place, with slow declines in their incomes. Given the rapid rise in house prices, it is highly unlikely that new buyers could gain entry to homeownership if their incomes fell below the median.

The most extensive data available for this report comes from the new 2020 census, which provides for the most up-to-date assessment of changes in communities of color and the growing competition for housing in the face of shortages of decent housing in neighborhoods across the region. The racial composition changes are reflections of underlying mobility processes that cannot be directly observed. We exploit these first details to be released from the 2020 census for the clues they provide about changes in communities of color.

A first finding is that each of the major California metros has a distinctly different racial profile and is witnessing different rates of change for each major group. A multitude of recent changes in communities of color are underway, reaching down to the neighborhood level, which we explored in depth for this report within the Los Angeles-Orange County MSA, whose 13.2 million residents comprise one-third of California’s 39.6 million population. The maps generated for this report follow our own unique design, necessarily crafted here to accommodate California’s multiracial changes in neighborhoods, reaching beyond the classic white-non white binary to explore exchanges among four major color groups. That’s a complex task to depict over time; hopefully, the visual displays have been able to convey useful insight into those dynamics.

We focused primarily on changes that were happening in the last decade in Black and Latino communities of color, noting both local declines in population and the influx of other groups. And we noted how both groups were spreading out to areas where they were previously less prevalent. What that could mean cannot be discerned in our data, because we lack interviews about the motivations about why people are moving.

One factor we could incorporate was data on the relative rents and house values in the many neighborhoods, measuring these at the beginning of the decade. We found that communities predominantly of color that received an expanding share of white or Asian residents already had higher house prices and rents at the beginning of the decade. The north end of predominantly Black areas of South LA, extending up to the 10 freeway, and the north end of the predominantly Latino East Side, just north and west of downtown LA, were primary locations for influx of white residents, an accompaniment of gentrification. Meanwhile, influxes of Asian population decreased Latino concentration west of downtown LA (Korea town) and in portions of the San Gabriel valley to the east (largely Chinese ancestry). Meanwhile, new growth of Black

and Latino residents spread outside established communities of color to low concentration areas that on average had substantially higher prices and rents.

At root of the changes discussed in this report, the cumulating shortages of housing due to slow construction, barely one-third of what is needed, intensified the pressures on the existing housing stock. One consequence was a slowing, indeed reversed, rate of filtering that once prevailed in California—no more old Victorians that could be had for a song, and no more neglected tract homes from the 1950s, newly glamorized as mid-century modern. The growing prevalence of homeowners with below median incomes suggests that existing homeowners are sitting tight, aging in place, and keeping their homes off the market. But the massive entry of a younger generation into the housing market (described in Report 1) creates intense competition for limited opportunities. Communities of color living in older housing are experiencing upward price pressures after decades of downward filtering once made their locations affordable. Locations that are most centrally located and proximate to major employment growth are subject to the most intense competition. Racial changes that result in selected areas often reflect a market expansion of the range of housing desirable to younger households of all races who have higher incomes (call it gentrification). Older people of color may be slowly but reluctantly selling their homes, but younger Blacks and Latinos are not able to replace their elders and replenish local communities of color, and thus the share of residents that are Black or Latino is declining. Meanwhile we all should work for an increase in fresh supply in the regional housing market, which can be the only relief from intense competition for space in neighborhoods.

REFERENCES CITED

- Baer, William and Christopher Williamson (1988) "The Filtering of Households and Housing Units." *Journal of Planning Literature*, 3(2), 127–152.
- Bhutta, Neil, Andrew C. Chang, Lisa J Detting, and Joanne W. Hsu (2020) "Disparities in Wealth by Race and Ethnicity in the 2019 Survey of Consumer Finances." *Fed Notes*. Board of Governors of the Federal Reserve System.
- Boustan, Leah P. and Robert A. Margo (2013) "A silver lining to white flight? White suburbanization and African–American homeownership, 1940–1980," *Journal of Urban Economics* 78: 71–80.
- California Department of Finance, Demographic Research Unit (2021) Report P-1A: Total Estimated and Projected Population for California: July 1, 2010 to 2060, prepared July 2021, State of California, Sacramento.
- California Legislative Analyst's Office (2015), California's High Housing Costs: Causes and Consequences. <https://lao.ca.gov/reports/2015/finance/housing-costs/housing-costs.aspx>
- Carr, James H., Michela Zonta, and William Spriggs, *2021 State of Housing in Black America*, NAREB.
- Choi, Jung Hyun, Jun Zhu, and Laurie Goodman (2018) *Intergenerational Homeownership: The Impact of Parental Homeownership and Wealth on Young Adults' Tenure Choices*. Washington, DC: Urban Institute.
- DiCamillo, Mark (2019) Berkeley IGS Poll, Release #2019-08, <https://escholarship.org/uc/item/96j2704t>.
- Freddie Mac (2020) *The Housing Supply Shortage: State of the States*. <http://www.freddiemac.com/research/insight/20200227-the-housing-supply-shortage.page>
- Frey, William H. (2018) *Diversity Explosion*. Washington D.C.: Brookings Institution.
- Goodman, Laurie S., and Christopher Mayer (2018) "Homeownership and the American Dream," *Journal of Economic Perspectives*, 32 (Winter): 31–58.
- Goodman, Laurie et al. (2021) "Housing Credit Availability Index," page 13 in *Housing Finance at a Glance* https://www.urban.org/research/publication/housing-finance-glance-monthly-chartbook-december-2021/view/full_report

- Johnson, Hans (2021) "Who's Leaving California—and Who's Moving In?" blogpost, Public Policy Institute of California, 2021, <https://www.ppic.org/blog/whos-leaving-california-and-whos-moving-in/>
- Hauser, P.M. and A. J. Jaffe (1947) *The Extent of the Housing Shortage*. <https://www.jstor.org/stable/1190114>
- Kousser, Thad and Cassidy Reller (2021) "Do Californians See their State Moving in the Right Direction, Or Do they See Themselves Moving out of California?" <https://www.universityofcalifornia.edu/sites/default/files/uc-san-diego-california-exodus-report.pdf>
- Lee, Alexandra (2021) "Rapid Growth of Asian-Headed Households Hides Significant Inequality," Zillow. <https://www.zillow.com/research/asian-american-homeownership-2021-29536/>
- Lee, Hyojung, Dowell Myers, Gary Painter, Johanna Thunell and Julie Zissimopoulos (2020) "The Role of Parental Financial Assistance in the Transition to Homeownership by Young Adults," *Journal of Housing Economics* <https://doi.org/10.1016/j.jhe.2018.08.002>
- Myers, Dowell (1999) "Cohort Longitudinal Estimation of Housing Careers," *Housing Studies* 14 (4): 473-90.
- Myers, Dowell (2016) "Peak Millennial: Three Reinforcing Cycles that Amplify the Rise and Fall of Urban Concentration by Millennials," *Housing Policy Debate* 26 (6): 928-947.
- Myers, Dowell and Hyojung Lee (2016) "Cohort Momentum and Future Homeownership: The Outlook to 2050," *Cityscape: A Journal of Policy Development and Research*, vol. 18 (March): 131-143.
- Myers, Dowell, JungHo Park, and Janet Li (2018) "How Much Added Housing is Really Needed in California?" <https://cpb-us-e1.wpmucdn.com/sites.usc.edu/dist/6/210/files/2017/02/HRB-1-How-Much-Added-Housing-is-Really-Needed-in-California-1okfauc.pdf>
- Myers, Dowell, JungHo Park, and Eduardo Mendoza (2018) *How Much Added Housing is Really Needed in Los Angeles?* <https://sites.usc.edu/popdynamics/housing/>
- Myers, Dowell and JungHo Park (2019) "A Constant Quartile Mismatch Indicator of Changing Rental Affordability in U.S. Metropolitan Areas, 2000 to 2016," *Cityscape: A Journal of Policy Development and Research*.
- Myers, Dowell, and JungHo Park (2020) *End of Housing and Economic Recovery from the Great Recession: How Good Did It Get by 2019?* Population Dynamics Research Group, USC Price School. <https://sites.usc.edu/popdynamics/>

Myers, Dowell and JungHo Park (2020) *Filtering of Apartment Housing, 1980 to 2018*. National Multi Housing Council. Washington, D.C. <https://www.nmhc.org/research-insight/research-report/nmhc-research-foundation-study-filtering-of-apartment-housing-between-1980-and-2018/>

Myers, Dowell, JungHo Park and Seongmoon Cho (2021) "Housing Shortages and the New Downturn of Residential Mobility in the U.S." *Housing Studies*, June 2021, <https://doi.org/10.1080/02673037.2021.1929860>.

National Association of Realtors (2019) *Housing Shortage Tracker*. <https://www.nar.realtor/research-and-statistics/housing-statistics/housing-shortage-tracker>

Ratcliff, Richard U. (1949) *Urban Land Economics*. New York: McGraw-Hill.

Rosenthal, Stuart S. (2014). "Are Private Markets and Filtering a Viable Source of Low-Income Housing? Estimates from a "Repeat Income" Model." *American Economic Review*, 104(2), 687–706

Rossi, Peter (1955) *Why Families Move*, Glencoe: Free Press.

Rothstein, Richard (2017) *The Color of Law: A Forgotten History of How Our Government Segregated America*, New York: W.W. Norton.

Rugh, Jacob S. (2015) "Double Jeopardy: Why Latinos Were Hit Hardest by the U.S. Foreclosure Crisis," *Social Forces* 93 (3): 1139–1184. doi: 10.1093/sf/sou107

Uhler, Brian and Justin Garosi (2018) "California Losing Residents Via Domestic Migration," Legislative Analysts' Office, State of California.

Weicher, J. C., Eggers, F. J., & Moumen, F. (2018) "The Long-Term Dynamics of Affordable Rental Housing: Creating and Using a New Database." *Cityscape: A Journal of Policy Development and Research*, 20(2), 235–244.